

S P E C I F I C A T I O N S

F O R

**PROPOSED CROTON FALLS PARK
IMPROVEMENTS (PHASE 1)**

FOR

**TOWN OF NORTH SALEM
WESTCHESTER COUNTY, NEW YORK**

PREPARED BY

**JAMES J HAHN ENGINEERING, P.C.
PUTNAM BUSINESS PARK
1689 ROUTE 22
BREWSTER, NEW YORK 10509**

August 2021

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SECTION A
PUBLIC NOTICE
TOWN OF NORTH SALEM
WESTCHESTER COUNTY, NY
PROPOSED CROTON FALLS PARK IMPROVEMENTS (PHASE 1)

Sealed proposals for performing the work herein described will be received at the Town Clerk's Office, 266 Titicus Road, North Salem, NY 10560, until 2:00 P.M. on September 23, 2021 and immediately thereafter the bids will be publicly opened and read aloud in said office.

The work consists of constructing improvements at the Croton Falls Park. The work includes asphalt and concrete sidewalks, curbing, asphalt parking, water service line, and appurtenant electrical work. Other related work shall include demolition, preparing, restoring and cleaning the project area all in accordance with the plans and specifications as directed by the Engineer.

Contract Documents may be obtained at the above office of the Town Clerk on or after September 2, 2021, at 2:00 P.M., upon payment of a cash deposit of \$50.00 for each set, which will be refunded upon return of said Contract Documents in good condition within 30 days after receipt of Bids. Contract Documents will only be available for purchase and return, not for on-site review. **Documents will also be available for free from the Town website <https://www.northsalemny.org/bids>.**

Bids shall be made on the separate Bid Proposal Forms furnished with the Specifications and must be accompanied by a Bid Bond acceptable to the Town or a certified cashier's check drawn on a solvent bank in the amount of not less than 5% of the total amount of the bid. Checks shall be made payable to the Town of North Salem, and are to be held by the Town as a guarantee for the proper execution and delivery of the Contract and bonds to secure the faithful performance thereof. In default of such execution and delivery of contract and bonds, the amount of the deposit represented by the check shall be forfeited to and retained by the Town of North Salem as liquidated damages.

Contractors bidding the project should visit the site prior to bid.

Proposals shall be enclosed in a sealed envelope bearing the name and address of the bidder, addressed to the Town of North Salem, 266 Titicus Road, North Salem, New York 10560 and endorsed "**Croton Falls Park Improvements (Phase 1)**".

The Town of North Salem reserves the right to reject any and all bids, to waive any informality in any bid, and to award the contract to other than the lowest bidder if deemed in the best interest of the Town to do so.

By Order of The Town Board
By Maria Hlushko, Town Clerk

SECTION B INSTRUCTIONS TO BIDDERS

DOCUMENTS

Complete sets of Bidding Documents will be issued for bidding purposes as stated in the "Notice to Bidders". A complete set of Documents consists of the following:

1. A bound copy of the Specifications
2. A separate set of Bid Sheets
3. Addenda (if any)
4. Contract Plans

PROPOSALS

To be considered, Proposals on the forms included herein, must be in accordance with these Instructions to Bidders. All bids must be submitted on the prescribed forms which are included herein, such forms also being bound in the specifications as Section C. All blank spaces for bid prices must be filled in, in both words and figures, either typed or in ink.

Proposals that contain any omission, erasures, alterations, additions, or items not called for in itemized Proposal, or that contains irregularities of any kind, may constitute sufficient cause for rejection of the bid. In case of any discrepancy in the price or amount bid in the Proposal, the price, as expressed in words, shall govern. All bids must be submitted in sealed envelopes addressed to the Town of North Salem, Town Hall, Route 116, North Salem, New York 10560 be clearly identified with: (1) Project Name, (2) Name of Bidder and Address, (3) Labeled "Proposed Croton Falls Park Improvements (Phase 1)". Proposals shall be signed with name typed below signature. The Bidder's seal, if a corporation shall be affixed under the Bidder's signature. Telephone, Facsimile or Telegraphic Bids will not be accepted.

If a separate set of proposal sheets is issued, they may be used with the understanding that all instructions and conditions of the Contract Documents are the same as if these pages were bound herein.

QUALIFICATIONS OF BIDDERS

The Owner may make such investigations as he deems necessary to determine the qualifications of the Bidder to perform the work and the Bidder shall furnish information and data for this purpose as may be required. The Owner reserves the right to reject any bid if the evidence submitted by a Bidder, or the investigation of such Bidder, fails to satisfy the Owner, that such Bidder is properly qualified to carry out obligations of the Contract and to complete the work contemplated therein within the time designated. Fraudulent statements shall cause rejections of Proposal and forfeiture of bid security.

The investigation of a Bidder will seek to determine whether the organization is adequate in size, is authorized to do business in the jurisdiction where the project is located, has had previous similar experience and where available equipment and financial resources are adequate to assure

Owner that the work will be competed in accordance with the terms of the Agreement. The amount of other work to which the Bidder is committed may also be considered.

All Bidders shall be prepared to submit within five (5) days of Owner's or Engineer's request, written evidence of such information and data necessary to determine if Bidder is qualified to perform the work. Qualifications shall include a minimum of five (5) previous projects involving similar construction work. The Contractor shall have a minimum of 5 years of work experience of similar size and scope. As a minimum, the project reference information requested in Section C of the Bid Proposal shall be provided at this time.

A representative of the Municipality will be present during site activities. It is required that work at this site be completed within the time allowed from the effective date of the Contract. Companies that do not have the ability to meet this schedule should not bid. If a bid will not be submitted, please notify the Town Engineer.

Technical capability and the ability to complete the project within the established time frame will also be part of the evaluation criteria along with any special status the bidder may have such as women-owned business and minority-owned business. Guidance on business classifications can be found in the Federal Acquisition Regulations (FAR) Subpart 19.1.

In evaluating Bids, the Owner will consider the qualifications of only those Bidders whose Bids are in compliance with the prescribed requirements.

CONDITIONS OF WORK

Each Bidder must be informed fully of conditions relating to the construction and labor under which work will be performed. Failure to do so will not relieve a successful Bidder of his obligation to furnish all material and labor necessary to carry out the provisions of the Contract and to complete the work for the consideration set forth in his bid. Bidder's attention is directed to Paragraph 1 of the Bid Proposal, in which the Bidder certifies that he has examined the site. If rock probes or test borings have been made by the Owner, they will be made available to the Contractor for inspection of the same conditions and basis as described in Section 154 of the General Conditions. Bid shall include the complete costs of furnishing all materials, labor and equipment necessary to complete the work in accordance with the Drawings and Specifications and all other expenses incidental thereto. Local and State sales taxes shall not be included in the bid. Insofar as possible, any Contractor in the carrying out of his work must employ such methods or means as will not cause any interruption of or interference with the work of any other Contractor, or of the proper functioning of the existing facilities of adjacent or contingent properties.

ADDENDA AND INTERPRETATION

Every request for information or interpretation of Bidding Documents or Drawings must be addressed in writing to the Town Consulting Engineer, James J. Hahn, P.E., Putnam Business Park, 1689 Route 22, Brewster, New York, 10509 and to be given any consideration must be received at least ten (10) days prior to the date fixed for the opening of bids. Any and all such interpretations, and any supplemental instructions, will be in the form of written Addenda and will be mailed to all prospective Bidders. The failure of any Bidder to receive any such Addenda

will not relieve the Bidder of any obligation under his Bid as submitted. Acknowledgment of Addenda shall be noted on the "Bid Form".

BID SECURITY

Each Bidder is required to deposit at the time of submission of his bid, a Bid Bond, as specified in Standard Specifications Section 102-15, or certified check in an amount representing five percent (5%) of his bid payable to the Owner, which amount the Bidder agrees is to be forfeited as liquidated damages and not as a penalty if in case he is awarded the Contract and he shall thereafter fail to execute a Contract with the Owner under the conditions of this Proposal or to furnish the bonds required for the faithful performance of this Contract. Bidders who submit certified checks must accompany them with a Consent of Surety from a recognized Bonding Company agreeing to supply a Performance Bond and Labor and Materials Bond if the Contract is awarded to the Bidder.

Such bid security will be returned to all except the three lowest formal Bidders within three days after the formal opening of bids, and the remaining bid security will be returned to the other Bidders after the Owner and the accepted Bidder have executed the Contract Documents. In the event no Contract has been so executed within seventy-five (75) calendar days after the date of the opening of bids, upon the demand of the Bidder, so long as he has not been notified of the acceptance of his bid, his bid security will be returned. The Bid Security of the successful Bidder will be retained until the signing of Agreement, the filing and approval of the bonds and insurance.

INSURANCE REQUIRED

The successful Bidder will be required to procure and pay for the following types of insurance, in accordance with the provisions listed in Section J:

- a. Workmen's Compensation
- b. Public Liability
- c. Owner's & Contractor's Protective
Liability
Property Damage
- d. Property Damage
- e. Automobile (Each Vehicle)
Public Liability
Property Damage
- f. Unemployment Insurance

The Subcontractors at a minimum must have the same insurance coverage as required by the Contractor or be listed on the Contractors policy.

SECURITY FOR FAITHFUL PERFORMANCE

The Contractor shall, prior to execution of the Contract and within fourteen (14) calendar days after the Notice of Intent to Award, submit two separate executed bonds with Power of Attorney,

(1) a Performance Bond in an amount equal to one hundred percent (100%) of the accepted bid as security for the faithful performance of the terms, covenants and conditions of the Contract; (2) a Labor and Material Payment Bond for the full amount of the Contract price guaranteeing the full payment of all persons performing labor or furnishing material or rentals, under the Contract; and (3) a Certificate of Insurance. The bonds submitted shall, as a minimum address the following:

1. That the company issuing the bond is to be a State of New York Company, with either having filed its Certificate of Incorporation with the State of New York or if a foreign corporation having qualified itself to do business in the State of New York By the New York Secretary of the State;
2. That simultaneously with the proposed bond, the applicant is to submit a current updated financial statement of the issuing bond company, presumably identical to any financial statement filed with the State of New York;
3. The applicant is to submit written proof from a reputable reporting/rating company, (i.e. Moodys, Best, etc.) that the issuing bonding company has a rating as to its financial reliability and creditability that is satisfactory to the Town Board.

In addition, at the time of the final payment, the Contractor shall provide a two (2) year maintenance bond guaranteeing against defective materials and workmanship in an amount equal to one hundred (100%) percent of the contract amount and shall submit the completed General Release form (Section G-1) stating that all obligations incurred by the Contractor in carrying out this Agreement have been satisfied including wage and costs of subcontractors, equipment and materials.

FORM OF AGREEMENT

The form of agreement is included in these documents in Section D. This form is for general information only and will be finalized pursuant to the Bid and other specific contract details such as addendums, drawings, payment schedules, etc., prior to signing.

AWARD

The Contract will be awarded to the lowest responsible bidder pursuant to the provisions of the General Municipal Law. The Town Board reserves the right to determine responsibility based on an evaluation of the Contractor's qualifications, experience, organization, finances, past performances, and other applicable factors. The Town Board further reserves the right to reject any or all bids.

OWNER

The Town of North Salem, Westchester County, New York.

SALES TAX EXEMPTION

Under Chapter 513 of the Laws of New York 1974, all materials and supplies sold to a Contractor and which are to become an integral, component part of a structure, building or real property owned by an exempt organization such as the municipality, are exempt from the payment of New York State Sales or compensatory use taxes. Therefore, the Contractor should not include any amount in its bid price to cover sales taxes for the above items.

REQUIRED SUBMISSIONS

Following the bid opening, the apparent low bidder shall submit to the Engineer within seven (7) days a preliminary schedule, financial information and experience information.

Prior to award, the successful bidder will be required to meet the following requirements:

- a. The successful bidder, if his business is not registered in New York State, must provide the Town with a certificate issued by the Secretary of State of New York stating that the Corporation is authorized to do business within the State and is presently in good standing. If the entity to whom the bid is awarded is not a corporation, it would be required that the entity's certificate of doing business, which should be on file in the County Clerk's Office, be provided. (This would also hold true in the case of joint ventures which would be required to disclose the underlying entities which make up the joint venture and the supplying of the requisite certificate of doing business of each such entity.)
- b. A statement by the successful bidder that no officer, director or stockholder (if less than 10 stockholders) of the successful bidder is an officer or employee of the Town or is a relative of any such Town officer or employee. If such officer, director or stockholder does exist, their names and relationship should be disclosed to the Town.

APPROVALS

There will not be any approvals given for any "or equals" materials, equipment or systems prior to the award of the contract.

SECTION C
BID PROPOSAL
PROPOSED Croton Falls Park Improvements (Phase 1)
WESTCHESTER COUNTY, NEW YORK

To:

Bid Submitted By:

Town Board
Town of North Salem
Route 116 – Town Hall
North Salem, NY 10560

(Name)

(Address)

(Telephone Number)

1. I/We do hereby declare that I/We have carefully examined the Plans and the Specifications relating to the above entitled matter and the work, and have also examined the site.
2. I/We do hereby offer and agree to furnish all materials, to fully and faithfully construct, perform and execute all work in the above titled matter in accordance with the Plans, Drawings, and Specifications relating thereto, and to furnish all labor, tools, implements, models, forms, transportations and materials necessary and proper for the purpose for the price/prices as given on the bid forms.
3. I/We do hereby declare that the prices so stated cover all expenses of every kind incidental to the completion of said work, and the contract therefor, including all claims that may arise through damages or any other cause whatsoever.
4. I/We do hereby agree that I/We will execute a contract therefor, containing all the terms, conditions, provisions and covenants necessary to complete the work according to the Plans and Specifications therefore within 10 business days after the award of the contract and if I/We fail to execute said contract within said period of time, that the Town Board shall have the power to rescind said award. The Contract execution will serve as the official notification to commence work.
5. I/We do also declare and agree I/We will commence the work within five days after the contract execution and will complete the work fully and in every respect on or before the time specified in said contract and do authorize the said Board, in case of failure to complete the work within such specified time to employ such men, equipment and materials as may be necessary for the proper completion of said work and to deduct the cost thereof from the amount due under the contract.
6. I/We agree that the Owner reserves the right to select any one, combination of, or all the Bid items in this proposal for the Contractor to complete without affecting any of the Bid prices.

7. I/We hereby affirm that by submission of this bid, each bidder and each person signing on behalf of any bidder certifies, and in the case of a joint bid each party thereto certifies as to its own organization, under the penalty of perjury, that to the best of knowledge and belief:
- a. The prices in this bid have been arrived at independently without collusion, consultation, communication, or agreement, for the purpose of restricting competition, as to any matter relating to such prices with any other bidder or with any competitor;
 - b. Unless otherwise required by law, the prices which have been quoted in this bid have not been knowingly disclosed by the bidder and will not knowingly be disclosed by the bidder prior to opening, directly or indirectly, to any other bidder or to any competitor; and
 - c. No attempt has been made or will be made by the bidder to induce any other person, partnership or corporation to submit or not submit a bid for the purpose of restricting competition.
8. I/We hereby further agree that this proposal is a firm bid and shall remain in effect for a period of at least seventy-five (75) calendar days from the date of the opening of bids, and that with said period of seventy-five (75) days, the Town will accept or reject this proposal, or this period may be extended by mutual agreement.
9. I/We do hereby declare that, if this is a corporate bid, I have been duly authorized to act as the signator on this proposal in behalf of this corporation.
10. I/We hereby affirm, under penalty of perjury, the truth of all statements in this proposal.
11. I/We hereby agree that I/We accept the unit prices and/or lump sums on the following pages, for the various items of work.
12. I/We hereby agree that I/We shall make no claim on account of any variation of the approximate estimate in the quantities of work to be done, whether the actual quantities are greater, smaller or completely deleted. A change in the quantity of any item shall not be regarded as sufficient ground for a change in the price of that item.

(Legal Name of Bidder)

Date: _____

By: _____
(Authorized Signature)

Corporate Seal
(if incorporated)

Bidder acknowledges receipt of Addenda as follows:

_____	_____
	Signature
_____	_____
	Signature
_____	_____
	Signature

The following is a list of places where we have performed work of similar character and magnitude, together with references:

<u>Project Name & Location</u>	<u>Approximate Cost</u>	<u>References & Telephone #</u>

The full names and places of residence of all persons and parties interested as principals in the foregoing proposal are as follows:

_____	_____
(PRINT NAME)	(ADDRESS)
_____	_____
(PRINT NAME)	(ADDRESS)

Signature of Bidder: _____

U.S. Treasury No.: _____

Business Address: _____

Place of Residence: _____

Date: _____

BID PROPOSAL
PROPOSED Croton Falls Park Improvements (Phase 1)
TOWN OF NORTH SALEM, NY

Name of Bidder _____

Email: _____

Address _____

Telephone: _____

City, State Zip _____

Fax: _____

Note: The Lump Sum and Unit Price amount is to be written in both words and numbers. In case of discrepancy, the amount shown in words shall govern. The price shall be in dollars and cents. The Lump Sum amount shall include all labor, materials, equipment, services, etc. required to complete the work in accordance with the Plans, Specifications and all other Contract Documents within the specified completion date

SECT	BID ITEM	UNIT	EST. QUANT.	UNIT PRICE	UNIT PRICE	TOTAL PRICE
				(IN NUMBERS)	(IN WORDS)	
AMSSD	Asphalt Misc. Sidewalks, Swales and Driveways	SF	1,000			
B	Bench	EA	1			
CB	Catch Basin	EA	1			
CC	Concrete Curb	LF	300			
CPP	Corrugated Polyethylene Pipe (12" Dia.)	LF	120			
CPP	Corrugated Polyethylene Pipe (12" End Sections)	EA	2			
CSR	Concrete Sidewalks and Ramps (5")	SF	1,400			
CSR	Concrete Sidewalks and Ramps (7")	SF	100			
DIP	Ductile Iron Pipe (8" Dia.)	LF	60			
DR	Demolition and Removal	LS	1			
DS	Drainage Structures (Manholes)	EA	1			
ESC	Erosion and Sedimentation Control	LS	1			
PVC	Polyvinylchloride Pipe (6" Dia. Roof Leaders)	LF	90			

BID PROPOSAL
PROPOSED Croton Falls Park Improvements (Phase 1)
TOWN OF NORTH SALEM, NY

SECT	BID ITEM	UNIT	EST. QUANT.	UNIT PRICE	UNIT PRICE	TOTAL PRICE
				(IN NUMBERS)	(IN WORDS)	
R	Restoration	NP	NP	Non-Payment	Non-Payment	Non-Payment
RR	Riprap	SY	10			
SCP	Saw Cutting Pavement	NP	NP			
TR	Tree Removal (4"-12" Dia.)	EA	2			
TSS	Topsoil & Seed	SF	4,000			
UFG	Unclassified Excavation, Filling & Grading	LS	1			
BASE BID						
ALTERNATE 1						
SV	Shut Off Valves	EA	1			
WSL	Water Service Line (3/4"-1" Dia.)	LF	230			
YH	Yard Hydrant	EA	1			
ALTERNATE 1 BID						
ALTERNATE 2						
BBC	Bituminous Base Course	TON	150			
BTC	Bituminous Top Course	TON	100			
CSG	Crush Stone & Gravel (Item 4)	CY	200			
PM	Pavement Markings (4" Lines)	LF	650			

BID PROPOSAL
PROPOSED Croton Falls Park Improvements (Phase 1)
TOWN OF NORTH SALEM, NY

SECT	BID ITEM	UNIT	EST. QUANT.	UNIT PRICE	UNIT PRICE	TOTAL PRICE
				(IN NUMBERS)	(IN WORDS)	
PM	Pavement Markings (Symbols)	EA	18			
TSP	Traffic Sign & Post	EA	1			
ALTERNATE 2 BID						
ALTERNATE 3						
ELE	Site Electrical	LS	1			
ALTERNATE 3 BID						
TOTAL						
TOTAL BID (BASE + ALL ALTERNATES)						
<p>The total bid shall be the sum of the extensions (unit price multiplied by estimated quantity, for each item). It is stated here only as a convenience for comparison of bids. If there are any errors in addition or multiplication, the unit prices for each item shall govern, and the bid comparison will be made on the basis of correct arithmetic applied to these unit prices. In case of a discrepancy between the unit price in words and the unit price in numbers, the unit prices in words shall govern.</p> <p>The estimated quantities are not guaranteed and are only for bid comparison purposes and final payment will be made for actual quantities regardless of the estimated quantities contained herein. The contractor is further advised that the estimated quantities shown in the Bid Sheets may be reduced or deleted in order to ensure that this Contract can be completed within the budget established for this work. In the event that certain work is deleted or reduced, the Unit Price Bid shall remain in effect for this work.</p>						

STATEMENT OF NON-COLLUSION
(To be Completed by Each Bidder)

In accordance with Section 103-d General Municipal Law, effective September 1, 1966, every bid or proposal hereafter made to a political subdivision of the State or any public department, agency or official thereof or to a fire district or any agency or official thereof for work or services performed or to be performed or goods sold or to be sold, shall contain the following statement subscribed to by the bidder and affirmed by such bidder as true under the penalties or perjury; non-collusive bidding certification.

- a. By submission of this bid, each bidder and each person signing on behalf of any bidder certifies and in the case of a joint bid, each party thereto certifies as to its own organization, under penalty of perjury, that to the best of knowledge and belief:
- (1) The prices in this bid have been arrived at independently without collusion, consultation, communication, or agreement, for the purpose of restricting competition, as to any matter relating to such prices with any other bidder or any competitor.
 - (2) Unless otherwise required by law, the prices which have been quoted in this bid have not been knowingly disclosed by the bidder and will not knowingly be disclosed by the bidder prior to opening, directly or indirectly, to any other bidder or to any competitor.
 - (3) No attempt has been made or will be made by the bidder to induce any other person, partnership, or corporation to submit or not to submit a bid for the purpose of restricting competition.
- b. The person signing this bid or proposal certifies that he has fully informed himself regarding the accuracy of the statements contained in this certification, and under the statements contained in this certification, and under the penalties of perjury, affirms the truth thereof, such penalties being applicable to the bidder, as well as the person signing in its behalf.
- c. That attached hereto (if a corporate bidder) is a certified copy of resolution authorizing the execution of this certificate by the signature of this bid or proposal in behalf of the corporate bidder.

COMPANY/BIDDER

DATE

NAME

SIGNATURE

#

RESOLUTION

Resolved that _____ be
(Name of Corporation)

authorized to sign and submit the bid or proposal of this corporation for the following project

(Describe Project)

and to include in such bid or proposal the certificate as to non-collusion required by section one-hundred-three-d (103-d) of the General Municipal Law as the act and deed of such corporation, and for any inaccuracies or mis-statements in such certificate this corporate bidder shall be liable under the penalties of perjury.

The foregoing is a true and correct copy of the resolution adopted by _____
_____ corporation at a meeting of
the

Board of Directors held on the _____ day of _____, 20__.

(SEAL OF THE CORPORATION)

(SECRETARY)

Laws of New York, 1965
Ch. 751, Sec. 103-d, as amended
effective September 1, 1965

#

OFFER OF SURETY

(To be completed by each Bidder)

In the event the above Proposal is accepted and the undersigned is awarded the Contract for the work, the undersigned offers a surety for faithful performance, bond and/or bonds to protect labor and material men, the following surety:

SURETY COMPANY

Signed _____
(Bidder)

CERTIFICATE OF SURETY to be signed by a duly authorized official, agent or attorney of the Surety Company.

In the event that the above proposal is accepted and the contract for the work is awarded to said

(Bidder's Name) the _____
(Surety Company)

will execute the Surety Bonds as hereinbefore provided.

Signed: _____
Authorized Official, Agent or Attorney

Date: _____

IMPORTANT: THIS PAGE MUST BE FILLED OUT WHEN CERTIFIED CHECK IS SUBMITTED IN LIEU OF BID BOND, OR BID MAY BE REJECTED.

Bid Bond

C-10

#

HOLD HARMLESS AGREEMENT

(To be approved by your Attorney)

The Contractor (and all subcontractors) shall, during the performance of this work, take all necessary precautions and place proper safeguards for the prevention of accident and shall indemnify and save harmless, the Town of North Salem, its employees, officers and agents from all claims, suits and actions and all damages and costs to which they may put by reason of death or injury to all persons or property of another resulting from unskillfulness, willfulness, negligence or carelessness in the performance of the work or in guarding and protecting the same or from any improper methods, materials implements or appliances used in its performance or construction or by or on account of any direct or indirect act or omission of passive or concurrent negligent act or omission by the Town of North Salem or any of its employees, officers or agents may have directly or indirectly caused or contributed thereto.

BIDDER/CONTRACTOR (Company Name) _____

ADDRESS _____

(Signature)

(Print Name)

(Title)

(Dated)

NOTARY:

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

Notary Public

#

SEXUAL HARASSMENT WRITTEN POLICY & TRAINING CERTIFICATION
(To be Completed by Each Bidder)

I, _____, being duly sworn, deposes and says that I am

(Name of Individual Signing this Certification)

the _____ of the _____
(Title/Position of Signer) (Name of Bidder)

and that by submission of this bid, each bidder and each person signing on behalf of any bidder certifies, and in the case of a joint bid each party thereto certifies as to its own organization, under penalty of perjury, that the bidder has and has implemented a written policy addressing sexual harassment prevention in the workplace and provides annual sexual harassment prevention training to all of its employees. Such policy shall, at a minimum, meet the requirements of Section 201-g of the New York State Labor Law.

Print Company Name

By: _____
Signature

Title

Sworn to before me this

_____ day of _____, 20____

Notary Public

#

**CERTIFICATION OF COMPLIANCE WITH THE IRAN DIVESTMENT ACT
(To be Completed by Each Bidder)**

Each bidder/proposer, any person signing on behalf of any bidder/proposer and any assignee or subcontractor and, in the case of a joint bid/proposer, each party thereto, certifies, under penalty of perjury, that to the best of its knowledge and belief, that each bidder/proposer and any subcontractor or assignee is not identified on the list created pursuant to paragraph (b) of subdivision 3 of section 165-a of the New York State Finance Law (the "Prohibited Entities List").

During the term of any contract awarded pursuant to this bid, should the Town of North Salem (the "Town") receive information that a bidder/proposer is in violation of the above-referenced certification, the Town will offer the person or entity an opportunity to respond. If the person or entity fails to demonstrate that he/she/it has ceased engagement in the investment which is in violation of the Act within 90 days after the determination of such violation, then the Town shall take such action as may be appropriate including, but not limited to, seeking compliance, recovering damages or declaring the bidder/proposer in default.

The Town reserves the right to reject any bid or proposal from a bidder/proposer that appears on the Prohibited Entities List prior to the award of a contract and to pursue a responsibility review with respect to any bidder/proposer that is awarded a contract and subsequently appears on the Prohibited Entities List.

I, _____, being duly sworn, deposes and says that
he/she

(Name of Individual Signing this Certification)

is the _____ of the _____ and that
neither

(Title/Position of Signer)

(Name of bidder/proposer)

the bidder/proposer nor any proposed subcontractor is identified on the Prohibited Entities List.

Print Company Name

By: _____
Signature

Title

Sworn to before me this
_____ day of _____, 20____

Notary Public

SECTION D

AGREEMENT

FOR

TOWN OF NORTH SALEM

THIS AGREEMENT, executed in quadruplicate, made this _____ day of _____, 20__, by and between the Town of North Salem, a municipal corporation with offices at Town Hall, 266 Titicus Street, North Salem, NY 10560, County of Westchester, State of New York, party of the first part, hereinafter designated the Town and _____ a business authorized to do business in New York State with offices at _____, party of the second part, hereinafter designated the CONTRACTOR.

WITNESSETH, that the CONTRACTOR and the Town for the consideration hereinafter named, agree as follows:

ARTICLE I - PURPOSE:

The work consists of _____. The project is located _____ in the Town of North Salem. Other related work shall include the _____ all in accordance with the plans and specifications as directed by the Engineer and Town. Coordination with the Department of Public Works is required and expected throughout the duration of the construction project.

Other related work shall include _____ accordance with the plans and specifications as directed by the Engineer.

All of the above work and other related work is more fully described in the specifications and drawings.

In furtherance of this end, the Town has prepared Specifications and Supporting Data, and has solicited bids for the work. When bids were opened, the bid prepared by the CONTRACTOR was the lowest bid received in compliance with the specifications and the Town awarded the work to the Contractor on _____.

ARTICLE II - SCOPE:

The Town accepts the CONTRACTOR'S bid proposal dated _____. The work to be done is shown and detailed on the following:

Notice to Bidders, Instruction to Bidders, Bid Proposal, Agreement, Performance Bond, Labor and Material Bond, Form of Maintenance Bond, General Release, Prevailing Wage, Compliance with Labor Law Requirements, Insurance, Non-Discrimination Clause, General Conditions, Special Conditions and Technical Specifications

All of the above items are dated _____ unless otherwise noted, and are attached hereto labeled as “_____ Prepared by James J. Hahn Engineering, P.C., Putnam Business Park, 1689 Route 22, Brewster, New York 10509”, and made a part of this Agreement.

There is further attached hereto and made a part of this Agreement:

1. "Bid Proposal" to the Town of North Salem, dated _____, executed by the CONTRACTOR, attached hereto and marked "EXHIBIT A".
2. Notice of Award letter by the Town of North Salem, dated _____, attached hereto and marked "EXHIBIT B".
3. Performance and Payment Bonds No. _____, dated _____.

ARTICLE III - TIME OF COMPLETION:

- (a) The CONTRACTOR shall commence work under this Agreement within _____ days of the Notice to Proceed or as soon as possible as directed by the OWNER.
- (b) The CONTRACTOR shall complete work by _____. The Contractor shall be responsible for completion of the Contract as required under Section 202 – TIME OF COMPLETION.
- (c) If the CONTRACTOR is unable to satisfactorily complete all work by the time of completion, the Town may grant an extension of time, if, in the opinion of the Town the delay in completing work was due to causes beyond the CONTRACTOR'S control, and not due to the CONTRACTOR'S negligence, actions or inaction.

ARTICLE IV - PAYMENT:

- (a) The Town will pay the CONTRACTOR for services under this Agreement the unit prices and lump sums as shown in "EXHIBIT A".
- (b) It is the intention of the Agreement to include under the above unit prices and lump sums all necessary services required to complete this project. If additional work is required, such work may be done on a mutually agreed basis, and authorized in writing by the Town.
- (c) Payment to the CONTRACTOR requires execution of CONTRACTOR's invoice. The payment form shall be in a format prescribed by the ENGINEER, in accordance with AIA document G702 and G703. The Town is a tax-exempt municipality.
- (d) Vouchers are paid _____ monthly and must be received by the Engineer no later than _____ days prior to Meetings for payment to be mailed to the CONTRACTOR within _____ days of the Board meeting.

A retainage of five (5%) percent of completed and approved contract work shall be withheld from each voucher submitted for payment by the CONTRACTOR.

- (e) Following a final site inspection of the Contract work and prior to final payment, the CONTRACTOR shall submit the General Release form from the Contract Documents and a two (2) year Maintenance Bond. The General Release shall state that all obligations incurred by the CONTRACTOR in carrying out this Agreement have been satisfied including wages and costs of subcontractors, equipment and materials. The General Release and Maintenance Bond shall be acceptable in form and sufficiency to the Attorney and ENGINEER, in the amount of 100% of the final Contract Price, and shall ensure satisfactory repair or replacement of defective work as required under the General Conditions.
- (f) Pursuant to approval of the General Release and _____ year Maintenance Bond, the CONTRACTOR shall receive final payment for approved work including previous retainage withheld by the Town.

ARTICLE V - COMPLIANCE WITH LAWS AND REGULATIONS:

In carrying out the terms of this Agreement, the CONTRACTOR shall comply with all applicable laws, regulations and procedures of the United States of America, State of New York, County of Westchester and the Town. In particular, the CONTRACTOR'S attention is directed to the Specifications Section H, "Prevailing Wage" and Section I, "Compliance With The Labor Law and other Department of Labor Regulations" and any related addendum.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement the day and year first above written.

AFFIX CORPORATE SEAL

By: _____
Warren Lucas, Town Supervisor

STATE OF NEW YORK)
) SS.:
COUNTY OF WESTCHESTER)

On the ____ day of _____, 2018, before me personally came _____ to me known, who, being by me duly sworn, did depose and say that he resides at _____; that he is the Town Supervisor, the municipal described in an which executed the foregoing instrument; that he knows the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by order of the Board of said municipal; and that he signed his name thereto by like order.

NOTARY PUBLIC

IN WITNESS WHEREOF, the parties hereto have executed this Agreement the day and year first above written.

AFFIX CORPORATE SEAL

By: _____
Contractor _____, President

STATE OF NEW YORK)
) SS.:
COUNTY OF WESTCHESTER)

On the ____ day of _____, 2018, before me personally came _____, to me known, who, being by me duly sworn, did depose and say that he resides at _____; that he is the _____ of _____ the corporation described in and which executed the foregoing instrument; that he knows the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation; and that he signed his name thereto by like order.

#

NOTARY PUBLIC

**AIA**[®]**Document A312™ – 2010****Performance Bond****CONTRACTOR:***(Name, legal status and address)***SURETY:***(Name, legal status and principal place of business)***OWNER:***(Name, legal status and address)***CONSTRUCTION CONTRACT**

Date:

Amount:

Description:

*(Name and location)***BOND**

Date:

(Not earlier than Construction Contract Date)

Amount:

Modifications to this Bond: ☐ None ☐ See Section 16**CONTRACTOR AS PRINCIPAL**Company: *(Corporate Seal)***SURETY**Company: *(Corporate Seal)*

Signature: _____

Name

and Title:

(Any additional signatures appear on the last page of this Performance Bond.)

Signature: _____

Name

and Title:

*(FOR INFORMATION ONLY — Name, address and telephone)***AGENT or BROKER:****OWNER'S REPRESENTATIVE:***(Architect, Engineer or other party:)*

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

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

AIA Document A312–2010 combines two separate bonds, a Performance Bond and a Payment Bond, into one form. This is not a single combined Performance and Payment Bond.

§ 1 The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to the Owner for the performance of the Construction Contract, which is incorporated herein by reference.

§ 2 If the Contractor performs the Construction Contract, the Surety and the Contractor shall have no obligation under this Bond, except when applicable to participate in a conference as provided in Section 3.

§ 3 If there is no Owner Default under the Construction Contract, the Surety's obligation under this Bond shall arise after

- .1 the Owner first provides notice to the Contractor and the Surety that the Owner is considering declaring a Contractor Default. Such notice shall indicate whether the Owner is requesting a conference among the Owner, Contractor and Surety to discuss the Contractor's performance. If the Owner does not request a conference, the Surety may, within five (5) business days after receipt of the Owner's notice, request such a conference. If the Surety timely requests a conference, the Owner shall attend. Unless the Owner agrees otherwise, any conference requested under this Section 3.1 shall be held within ten (10) business days of the Surety's receipt of the Owner's notice. If the Owner, the Contractor and the Surety agree, the Contractor shall be allowed a reasonable time to perform the Construction Contract, but such an agreement shall not waive the Owner's right, if any, subsequently to declare a Contractor Default;
- .2 the Owner declares a Contractor Default, terminates the Construction Contract and notifies the Surety; and
- .3 the Owner has agreed to pay the Balance of the Contract Price in accordance with the terms of the Construction Contract to the Surety or to a contractor selected to perform the Construction Contract.

§ 4 Failure on the part of the Owner to comply with the notice requirement in Section 3.1 shall not constitute a failure to comply with a condition precedent to the Surety's obligations, or release the Surety from its obligations, except to the extent the Surety demonstrates actual prejudice.

§ 5 When the Owner has satisfied the conditions of Section 3, the Surety shall promptly and at the Surety's expense take one of the following actions:

§ 5.1 Arrange for the Contractor, with the consent of the Owner, to perform and complete the Construction Contract;

§ 5.2 Undertake to perform and complete the Construction Contract itself, through its agents or independent contractors;

§ 5.3 Obtain bids or negotiated proposals from qualified contractors acceptable to the Owner for a contract for performance and completion of the Construction Contract, arrange for a contract to be prepared for execution by the Owner and a contractor selected with the Owner's concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Construction Contract, and pay to the Owner the amount of damages as described in Section 7 in excess of the Balance of the Contract Price incurred by the Owner as a result of the Contractor Default; or

§ 5.4 Waive its right to perform and complete, arrange for completion, or obtain a new contractor and with reasonable promptness under the circumstances:

- .1 After investigation, determine the amount for which it may be liable to the Owner and, as soon as practicable after the amount is determined, make payment to the Owner; or
- .2 Deny liability in whole or in part and notify the Owner, citing the reasons for denial.

§ 6 If the Surety does not proceed as provided in Section 5 with reasonable promptness, the Surety shall be deemed to be in default on this Bond seven days after receipt of an additional written notice from the Owner to the Surety demanding that the Surety perform its obligations under this Bond, and the Owner shall be entitled to enforce any remedy available to the Owner. If the Surety proceeds as provided in Section 5.4, and the Owner refuses the payment or the Surety has denied liability, in whole or in part, without further notice the Owner shall be entitled to enforce any remedy available to the Owner.

§ 7 If the Surety elects to act under Section 5.1, 5.2 or 5.3, then the responsibilities of the Surety to the Owner shall not be greater than those of the Contractor under the Construction Contract, and the responsibilities of the Owner to the Surety shall not be greater than those of the Owner under the Construction Contract. Subject to the commitment by the Owner to pay the Balance of the Contract Price, the Surety is obligated, without duplication, for

- .1 the responsibilities of the Contractor for correction of defective work and completion of the Construction Contract;
- .2 additional legal, design professional and delay costs resulting from the Contractor's Default, and resulting from the actions or failure to act of the Surety under Section 5; and
- .3 liquidated damages, or if no liquidated damages are specified in the Construction Contract, actual damages caused by delayed performance or non-performance of the Contractor.

§ 8 If the Surety elects to act under Section 5.1, 5.3 or 5.4, the Surety's liability is limited to the amount of this Bond.

§ 9 The Surety shall not be liable to the Owner or others for obligations of the Contractor that are unrelated to the Construction Contract, and the Balance of the Contract Price shall not be reduced or set off on account of any such unrelated obligations. No right of action shall accrue on this Bond to any person or entity other than the Owner or its heirs, executors, administrators, successors and assigns.

§ 10 The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders and other obligations.

§ 11 Any proceeding, legal or equitable, under this Bond may be instituted in any court of competent jurisdiction in the location in which the work or part of the work is located and shall be instituted within two years after a declaration of Contractor Default or within two years after the Contractor ceased working or within two years after the Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this Paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.

§ 12 Notice to the Surety, the Owner or the Contractor shall be mailed or delivered to the address shown on the page on which their signature appears.

§ 13 When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

§ 14 Definitions

§ 14.1 **Balance of the Contract Price.** The total amount payable by the Owner to the Contractor under the Construction Contract after all proper adjustments have been made, including allowance to the Contractor of any amounts received or to be received by the Owner in settlement of insurance or other claims for damages to which the Contractor is entitled, reduced by all valid and proper payments made to or on behalf of the Contractor under the Construction Contract.

§ 14.2 **Construction Contract.** The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and changes made to the agreement and the Contract Documents.

§ 14.3 **Contractor Default.** Failure of the Contractor, which has not been remedied or waived, to perform or otherwise to comply with a material term of the Construction Contract.

§ 14.4 **Owner Default.** Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.

§ 14.5 **Contract Documents.** All the documents that comprise the agreement between the Owner and Contractor.

§ 15 If this Bond is issued for an agreement between a Contractor and subcontractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

§ 16 Modifications to this bond are as follows:

SAMPLE

(Space is provided below for additional signatures of added parties, other than those appearing on the cover page.)

CONTRACTOR AS PRINCIPAL

SURETY

Company:

(Corporate Seal)

Company:

(Corporate Seal)

Signature: _____

Name and Title: _____

Address _____

Signature: _____

Name and Title: _____

Address _____

CAUTION: You should sign an original AIA Contract Document, on which this text appears in RED. An original assures that changes will not be obscured.



Document A312™ – 2010

Payment Bond

CONTRACTOR:

(Name, legal status and address)

SURETY:

(Name, legal status and principal place of business)

OWNER:

(Name, legal status and address)

CONSTRUCTION CONTRACT

Date:

Amount:

Description:

(Name and location)

BOND

Date:

(Not earlier than Construction Contract Date)

Amount:

Modifications to this Bond: ☐ None ☐ See Section 18

CONTRACTOR AS PRINCIPAL

Company: (Corporate Seal)

SURETY

Company: (Corporate Seal)

Signature: _____

Name

and Title:

(Any additional signatures appear on the last page of this Payment Bond.)

Signature: _____

Name

and Title:

(FOR INFORMATION ONLY — Name, address and telephone)

AGENT or BROKER:

OWNER'S REPRESENTATIVE:

(Architect, Engineer or other party:)

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

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

AIA Document A312–2010 combines two separate bonds, a Performance Bond and a Payment Bond, into one form. This is not a single combined Performance and Payment Bond.

§ 1 The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to the Owner to pay for labor, materials and equipment furnished for use in the performance of the Construction Contract, which is incorporated herein by reference, subject to the following terms.

§ 2 If the Contractor promptly makes payment of all sums due to Claimants, and defends, indemnifies and holds harmless the Owner from claims, demands, liens or suits by any person or entity seeking payment for labor, materials or equipment furnished for use in the performance of the Construction Contract, then the Surety and the Contractor shall have no obligation under this Bond.

§ 3 If there is no Owner Default under the Construction Contract, the Surety's obligation to the Owner under this Bond shall arise after the Owner has promptly notified the Contractor and the Surety (at the address described in Section 13) of claims, demands, liens or suits against the Owner or the Owner's property by any person or entity seeking payment for labor, materials or equipment furnished for use in the performance of the Construction Contract and tendered defense of such claims, demands, liens or suits to the Contractor and the Surety.

§ 4 When the Owner has satisfied the conditions in Section 3, the Surety shall promptly and at the Surety's expense defend, indemnify and hold harmless the Owner against a duly tendered claim, demand, lien or suit.

§ 5 The Surety's obligations to a Claimant under this Bond shall arise after the following:

§ 5.1 Claimants, who do not have a direct contract with the Contractor,

- .1 have furnished a written notice of non-payment to the Contractor, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were, or equipment was, furnished or supplied or for whom the labor was done or performed, within ninety (90) days after having last performed labor or last furnished materials or equipment included in the Claim; and
- .2 have sent a Claim to the Surety (at the address described in Section 13).

§ 5.2 Claimants, who are employed by or have a direct contract with the Contractor, have sent a Claim to the Surety (at the address described in Section 13).

§ 6 If a notice of non-payment required by Section 5.1.1 is given by the Owner to the Contractor, that is sufficient to satisfy a Claimant's obligation to furnish a written notice of non-payment under Section 5.1.1.

§ 7 When a Claimant has satisfied the conditions of Sections 5.1 or 5.2, whichever is applicable, the Surety shall promptly and at the Surety's expense take the following actions:

§ 7.1 Send an answer to the Claimant, with a copy to the Owner, within sixty (60) days after receipt of the Claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed; and

§ 7.2 Pay or arrange for payment of any undisputed amounts.

§ 7.3 The Surety's failure to discharge its obligations under Section 7.1 or Section 7.2 shall not be deemed to constitute a waiver of defenses the Surety or Contractor may have or acquire as to a Claim, except as to undisputed amounts for which the Surety and Claimant have reached agreement. If, however, the Surety fails to discharge its obligations under Section 7.1 or Section 7.2, the Surety shall indemnify the Claimant for the reasonable attorney's fees the Claimant incurs thereafter to recover any sums found to be due and owing to the Claimant.

§ 8 The Surety's total obligation shall not exceed the amount of this Bond, plus the amount of reasonable attorney's fees provided under Section 7.3, and the amount of this Bond shall be credited for any payments made in good faith by the Surety.

§ 9 Amounts owed by the Owner to the Contractor under the Construction Contract shall be used for the performance of the Construction Contract and to satisfy claims, if any, under any construction performance bond. By the Contractor furnishing and the Owner accepting this Bond, they agree that all funds earned by the Contractor in the performance of the Construction Contract are dedicated to satisfy obligations of the Contractor and Surety under this Bond, subject to the Owner's priority to use the funds for the completion of the work.

§ 10 The Surety shall not be liable to the Owner, Claimants or others for obligations of the Contractor that are unrelated to the Construction Contract. The Owner shall not be liable for the payment of any costs or expenses of any Claimant under this Bond, and shall have under this Bond no obligation to make payments to, or give notice on behalf of, Claimants or otherwise have any obligations to Claimants under this Bond.

§ 11 The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders and other obligations.

§ 12 No suit or action shall be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the state in which the project that is the subject of the Construction Contract is located or after the expiration of one year from the date (1) on which the Claimant sent a Claim to the Surety pursuant to Section 5.1.2 or 5.2, or (2) on which the last labor or service was performed by anyone or the last materials or equipment were furnished by anyone under the Construction Contract, whichever of (1) or (2) first occurs. If the provisions of this Paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.

§ 13 Notice and Claims to the Surety, the Owner or the Contractor shall be mailed or delivered to the address shown on the page on which their signature appears. Actual receipt of notice or Claims, however accomplished, shall be sufficient compliance as of the date received.

§ 14 When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

§ 15 Upon request by any person or entity appearing to be a potential beneficiary of this Bond, the Contractor and Owner shall promptly furnish a copy of this Bond or shall permit a copy to be made.

§ 16 Definitions

§ 16.1 Claim. A written statement by the Claimant including at a minimum:

- .1 the name of the Claimant;
- .2 the name of the person for whom the labor was done, or materials or equipment furnished;
- .3 a copy of the agreement or purchase order pursuant to which labor, materials or equipment was furnished for use in the performance of the Construction Contract;
- .4 a brief description of the labor, materials or equipment furnished;
- .5 the date on which the Claimant last performed labor or last furnished materials or equipment for use in the performance of the Construction Contract;
- .6 the total amount earned by the Claimant for labor, materials or equipment furnished as of the date of the Claim;
- .7 the total amount of previous payments received by the Claimant; and
- .8 the total amount due and unpaid to the Claimant for labor, materials or equipment furnished as of the date of the Claim.

§ 16.2 Claimant. An individual or entity having a direct contract with the Contractor or with a subcontractor of the Contractor to furnish labor, materials or equipment for use in the performance of the Construction Contract. The term Claimant also includes any individual or entity that has rightfully asserted a claim under an applicable mechanic's lien or similar statute against the real property upon which the Project is located. The intent of this Bond shall be to include without limitation in the terms "labor, materials or equipment" that part of water, gas, power, light, heat, oil, gasoline, telephone service or rental equipment used in the Construction Contract, architectural and engineering services required for performance of the work of the Contractor and the Contractor's subcontractors, and all other items for which a mechanic's lien may be asserted in the jurisdiction where the labor, materials or equipment were furnished.

§ 16.3 Construction Contract. The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and all changes made to the agreement and the Contract Documents.

§ 16.4 Owner Default. Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.

§ 16.5 Contract Documents. All the documents that comprise the agreement between the Owner and Contractor.

§ 17 If this Bond is issued for an agreement between a Contractor and subcontractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

§ 18 Modifications to this bond are as follows:

SAMPLE

(Space is provided below for additional signatures of added parties, other than those appearing on the cover page.)

CONTRACTOR AS PRINCIPAL

SURETY

Company:

(Corporate Seal)

Company:

(Corporate Seal)

Signature: _____

Name and Title: _____

Address _____

Signature: _____

Name and Title: _____

Address _____

CAUTION: You should sign an original AIA Contract Document, on which this text appears in RED. An original assures that changes will not be obscured.

FORM OF MAINTENANCE BOND

KNOW ALL MEN BY THESE PRESENTS:

That we, _____
(hereinafter called the Principal) as Principal and the _____,
a _____ Corporation with an office and place of business for the State
of New York at _____
New York, (hereinafter called the Surety) as Surety, are held and firmly bound unto the

(hereinafter called the Obligee) as Obligee in the sum of _____
_____ (\$ _____) DOLLARS,
lawful money of the United States of America, for the payment whereof the Principal and Surety
bind themselves, their successors and assigns, jointly and severally, firmly by these presents.

Signed, sealed and dated this _____ day of _____, 20__.

WHEREAS, the Principal heretofore entered into a written contract with the Contract for

WHEREAS, said Contract provides that the principal shall guarantee _____

NOW, THEREFORE, the condition of this obligation is such, that if the above Principal shall indemnify the Obligees against loss by reason of his failure to make good at own expense any defects or deficiencies in materials or workmanship which may appear in the work under said contract for the period of _____ year(s) from the date of acceptance of the work, then this obligation shall be void; otherwise to remain in full force and effect.

Principal

By: _____

By: _____

STATE OF _____)

SS:

COUNTY OF _____)

On this _____ day of _____, 201__ before me
personally appeared the within named _____
to me known, and known to me to be _____
the individual described in and who executed the within bond, and _____
acknowledged to me that he _____ executed the same.

NOTARY PUBLIC

SECTION G

GENERAL RELEASE

(To Be Submitted With Requisition For Final Payment)

KNOW ALL MEN BY THESE PRESENTS, that _____
(Contractor)

for and in consideration of the sum of _____
(Final Contract Price)

lawful money of the United States Of America, to it in hand paid

by _____,
(Owner/Contracting Agency)

have remised, released, quit-claimed, and forever discharged, and by these presents do for its successors and assigns remise, release, quit-claim, and forever discharge the said

_____,
(Owner/Contracting Agency)

and its successors and assigns and administrators, of and from any and all manner of action and actions, caused and causes of action, suits, debts, dues, sum and sums of money, accounts, reckonings, bonds, bills, specialties, covenants, contract, controversies, agreements, promises, variances, trespasses, damages, judgements, patents, extents, executions, claims and demands whatsoever in law and unity which against the said

_____,
(Owner/Contracting Agency)

now have or which heirs, executors, or administrators hereafter can, shall, or may have, for upon or by reason of any matter, cause or thing whatsoever, from the beginning of the world to the day of the date of these presents rising out of the construction, in accordance with contract entered into between parties hereto, dated _____, 20__, any admittance or supplements thereto.

IN WITNESS WHEREOF, the undersigned corporation has caused this agreement to be signed by its _____ and its incorporated seal to be hereto affixed and duly attested by its _____ this _____ day of _____.

ATTEST:

PRINCIPAL:

AFFIX CORPORATE SEAL

STATE OF NEW YORK)
) SS:
COUNTY OF WESTCHESTER)

On the _____ day of _____, 20__, before me personally came _____
_____ to me known, who, being by me duly sworn, did
depose and say that he resides at _____
_____, that
he is the _____ of _____, the corporation
described and that he signed his name thereto.

NOTARY PUBLIC

SECTION H
PREVAILING WAGE RATES



Andrew M. Cuomo, Governor

Roberta Reardon, Commissioner

Town of North Salem

Mary Head, Engineer
Putnam Business Park
1689 Route 22
Brewster NY 10509

Schedule Year 2021 through 2022
Date Requested 08/11/2021
PRC# 2021008499

Location North Salem
Project ID#
Project Type Proposed Croton Falls Park Improvements (Phase 1)

PREVAILING WAGE SCHEDULE FOR ARTICLE 8 PUBLIC WORK PROJECT

Attached is the current schedule(s) of the prevailing wage rates and prevailing hourly supplements for the project referenced above. A unique Prevailing Wage Case Number (PRC#) has been assigned to the schedule(s) for your project.

The schedule is effective from July 2021 through June 2022. All updates, corrections, posted on the 1st business day of each month, and future copies of the annual determination are available on the Department's website www.labor.ny.gov. Updated PDF copies of your schedule can be accessed by entering your assigned PRC# at the proper location on the website.

It is the responsibility of the contracting agency or its agent to annex and make part, the attached schedule, to the specifications for this project, when it is advertised for bids and /or to forward said schedules to the successful bidder(s), immediately upon receipt, in order to insure the proper payment of wages.

Please refer to the "General Provisions of Laws Covering Workers on Public Work Contracts" provided with this schedule, for the specific details relating to other responsibilities of the Department of Jurisdiction.

Upon completion or cancellation of this project, enter the required information and mail **OR** fax this form to the office shown at the bottom of this notice, **OR** fill out the electronic version via the NYSDOL website.

NOTICE OF COMPLETION / CANCELLATION OF PROJECT

Date Completed: _____ Date Cancelled: _____

Name & Title of Representative: _____

Phone: (518) 457-5589 Fax: (518) 485-1870
W. Averell Harriman State Office Campus, Bldg. 12, Room 130, Albany, NY 12240

General Provisions of Laws Covering Workers on Article 8 Public Work Contracts

Introduction

The Labor Law requires public work contractors and subcontractors to pay laborers, workers, or mechanics employed in the performance of a public work contract not less than the prevailing rate of wage and supplements (fringe benefits) in the locality where the work is performed.

Responsibilities of the Department of Jurisdiction

A Department of Jurisdiction (Contracting Agency) includes a state department, agency, board or commission; a county, city, town or village; a school district, board of education or board of cooperative educational services; a sewer, water, fire, improvement and other district corporation; a public benefit corporation; and a public authority awarding a public work contract.

The Department of Jurisdiction (Contracting Agency) awarding a public work contract MUST obtain a Prevailing Rate Schedule listing the hourly rates of wages and supplements due the workers to be employed on a public work project. This schedule may be obtained by completing and forwarding a "Request for wage and Supplement Information" form (PW 39) to the Bureau of Public Work. The Prevailing Rate Schedule MUST be included in the specifications for the contract to be awarded and is deemed part of the public work contract.

Upon the awarding of the contract, the law requires that the Department of Jurisdiction (Contracting Agency) furnish the following information to the Bureau: the name and address of the contractor, the date the contract was let and the approximate dollar value of the contract. To facilitate compliance with this provision of the Labor Law, a copy of the Department's "Notice of Contract Award" form (PW 16) is provided with the original Prevailing Rate Schedule.

The Department of Jurisdiction (Contracting Agency) is required to notify the Bureau of the completion or cancellation of any public work project. The Department's PW 200 form is provided for that purpose.

Both the PW 16 and PW 200 forms are available for completion [online](#).

Hours

No laborer, worker, or mechanic in the employ of a contractor or subcontractor engaged in the performance of any public work project shall be permitted to work more than eight hours in any day or more than five days in any week, except in cases of extraordinary emergency. The contractor and the Department of Jurisdiction (Contracting Agency) may apply to the Bureau of Public Work for a dispensation permitting workers to work additional hours or days per week on a particular public work project.

There are very few exceptions to this rule. Complete information regarding these exceptions is available on the ["Request for a dispensation to work overtime" form \(PW30\)](#) and ["4 Day / 10 Hour Work Schedule" form \(PW 30.1\)](#).

Wages and Supplements

The wages and supplements to be paid and/or provided to laborers, workers, and mechanics employed on a public work project shall be not less than those listed in the current Prevailing Rate Schedule for the locality where the work is performed. If a prime contractor on a public work project has not been provided with a Prevailing Rate Schedule, the contractor must notify the Department of Jurisdiction (Contracting Agency) who in turn must request an original Prevailing Rate Schedule form the Bureau of Public Work. Requests may be submitted by: mail to NYSDOL, Bureau of Public Work, State Office Bldg. Campus, Bldg. 12, Rm. 130, Albany, NY 12240; Fax to Bureau of Public Work (518) 485-1870; or electronically at the NYSDOL website www.labor.ny.gov.

Upon receiving the original schedule, the Department of Jurisdiction (Contracting Agency) is REQUIRED to provide complete copies to all prime contractors who in turn MUST, by law, provide copies of all applicable county schedules to each subcontractor and obtain from each subcontractor, an affidavit certifying such schedules were received. If the original schedule expired, the contractor may obtain a copy of the new annual determination from the NYSDOL website www.labor.ny.gov.

The Commissioner of Labor makes an annual determination of the prevailing rates. This determination is in effect from July 1st through June 30th of the following year. The annual determination is available on the NYSDOL website www.labor.ny.gov.

Payrolls and Payroll Records

Every contractor and subcontractor MUST keep original payrolls or transcripts subscribed and affirmed as true under penalty of perjury. As per Article 6 of the Labor law, contractors and subcontractors are required to establish, maintain, and preserve for not less than six (6) years, contemporaneous, true, and accurate payroll records. At a minimum, payrolls must show the following information for each person employed on a public work project: Name, Address, Last 4 Digits of Social Security Number, Classification(s) in which the worker was employed, Hourly wage rate(s) paid, Supplements paid

or provided, and Daily and weekly number of hours worked in each classification.

The filing of payrolls to the Department of Jurisdiction is a condition of payment. Every contractor and subcontractor shall submit to the Department of Jurisdiction (Contracting Agency), within thirty (30) days after issuance of its first payroll and every thirty (30) days thereafter, a transcript of the original payrolls, subscribed and affirmed as true under penalty of perjury. The Department of Jurisdiction (Contracting Agency) shall collect, review for facial validity, and maintain such payrolls.

In addition, the Commissioner of Labor may require contractors to furnish, with ten (10) days of a request, payroll records sworn to as their validity and accuracy for public work and private work. Payroll records include, but are not limited to time cards, work description sheets, proof that supplements were provided, cancelled payroll checks and payrolls. Failure to provide the requested information within the allotted ten (10) days will result in the withholding of up to 25% of the contract, not to exceed \$100,000.00. If the contractor or subcontractor does not maintain a place of business in New York State and the amount of the contract exceeds \$25,000.00, payroll records and certifications must be kept on the project worksite.

The prime contractor is responsible for any underpayments of prevailing wages or supplements by any subcontractor.

All contractors or their subcontractors shall provide to their subcontractors a copy of the Prevailing Rate Schedule specified in the public work contract as well as any subsequently issued schedules. A failure to provide these schedules by a contractor or subcontractor is a violation of Article 8, Section 220-a of the Labor Law.

All subcontractors engaged by a public work project contractor or its subcontractor, upon receipt of the original schedule and any subsequently issued schedules, shall provide to such contractor a verified statement attesting that the subcontractor has received the Prevailing Rate Schedule and will pay or provide the applicable rates of wages and supplements specified therein. (See NYS Labor Laws, Article 8 . Section 220-a).

Determination of Prevailing Wage and Supplement Rate Updates Applicable to All Counties

The wages and supplements contained in the annual determination become effective July 1st whether or not the new determination has been received by a given contractor. Care should be taken to review the rates for obvious errors. Any corrections should be brought to the Department's attention immediately. It is the responsibility of the public work contractor to use the proper rates. If there is a question on the proper classification to be used, please call the district office located nearest the project. Any errors in the annual determination will be corrected and posted to the NYSDOL website on the first business day of each month. Contractors are responsible for paying these updated rates as well, retroactive to July 1st.

When you review the schedule for a particular occupation, your attention should be directed to the dates above the column of rates. These are the dates for which a given set of rates is effective. To the extent possible, the Department posts rates in its possession that cover periods of time beyond the July 1st to June 30th time frame covered by a particular annual determination. Rates that extend beyond that instant time period are informational ONLY and may be updated in future annual determinations that actually cover the then appropriate July 1st to June 30th time period.

Withholding of Payments

When a complaint is filed with the Commissioner of Labor alleging the failure of a contractor or subcontractor to pay or provide the prevailing wages or supplements, or when the Commissioner of Labor believes that unpaid wages or supplements may be due, payments on the public work contract shall be withheld from the prime contractor in a sufficient amount to satisfy the alleged unpaid wages and supplements, including interest and civil penalty, pending a final determination.

When the Bureau of Public Work finds that a contractor or subcontractor on a public work project failed to pay or provide the requisite prevailing wages or supplements, the Bureau is authorized by Sections 220-b and 235.2 of the Labor Law to so notify the financial officer of the Department of Jurisdiction (Contracting Agency) that awarded the public work contract. Such officer MUST then withhold or cause to be withheld from any payment due the prime contractor on account of such contract the amount indicated by the Bureau as sufficient to satisfy the unpaid wages and supplements, including interest and any civil penalty that may be assessed by the Commissioner of Labor. The withholding continues until there is a final determination of the underpayment by the Commissioner of Labor or by the court in the event a legal proceeding is instituted for review of the determination of the Commissioner of Labor.

The Department of Jurisdiction (Contracting Agency) shall comply with this order of the Commissioner of Labor or of the court with respect to the release of the funds so withheld.

Summary of Notice Posting Requirements

The current Prevailing Rate Schedule must be posted in a prominent and accessible place on the site of the public work project. The prevailing wage schedule must be encased in, or constructed of, materials capable of withstanding adverse weather conditions and be titled "PREVAILING RATE OF WAGES" in letters no smaller than two (2) inches by two (2) inches.

The "Public Work Project" notice must be posted at the beginning of the performance of every public work contract, on each job site.

Every employer providing workers' compensation insurance and disability benefits must post notices of such coverage in the format prescribed by the Workers' Compensation Board in a conspicuous place on the jobsite.

Every employer subject to the NYS Human Rights Law must conspicuously post at its offices, places of employment, or employment training centers, notices furnished by the State Division of Human Rights.

Employers liable for contributions under the Unemployment Insurance Law must conspicuously post on the jobsite notices furnished by the NYS Department of Labor.

Apprentices

Employees cannot be paid apprentice rates unless they are individually registered in a program registered with the NYS Commissioner of Labor. The allowable ratio of apprentices to journeymen in any craft classification can be no greater than the statewide building trade ratios promulgated by the Department of Labor and included with the Prevailing Rate Schedule. An employee listed on a payroll as an apprentice who is not registered as above or is performing work outside the classification of work for which the apprentice is indentured, must be paid the prevailing journeyman's wage rate for the classification of work the employee is actually performing.

NYSDOL Labor Law, Article 8, Section 220-3, require that only apprentices individually registered with the NYS Department of Labor may be paid apprenticeship rates on a public work project. No other Federal or State Agency of office registers apprentices in New York State.

Persons wishing to verify the apprentice registration of any person must do so in writing by mail, to the NYSDOL Office of Employability Development / Apprenticeship Training, State Office Bldg. Campus, Bldg. 12, Albany, NY 12240 or by Fax to NYSDOL Apprenticeship Training (518) 457-7154. All requests for verification must include the name and social security number of the person for whom the information is requested.

The only conclusive proof of individual apprentice registration is written verification from the NYSDOL Apprenticeship Training Albany Central office. Neither Federal nor State Apprenticeship Training offices outside of Albany can provide conclusive registration information.

It should be noted that the existence of a registered apprenticeship program is not conclusive proof that any person is registered in that program. Furthermore, the existence or possession of wallet cards, identification cards, or copies of state forms is not conclusive proof of the registration of any person as an apprentice.

Interest and Penalties

In the event that an underpayment of wages and/or supplements is found:

- Interest shall be assessed at the rate then in effect as prescribed by the Superintendent of Banks pursuant to section 14-a of the Banking Law, per annum from the date of underpayment to the date restitution is made.
- A Civil Penalty may also be assessed, not to exceed 25% of the total of wages, supplements, and interest due.

Debarment

Any contractor or subcontractor and/or its successor shall be ineligible to submit a bid on or be awarded any public work contract or subcontract with any state, municipal corporation or public body for a period of five (5) years when:

- Two (2) willful determinations have been rendered against that contractor or subcontractor and/or its successor within any consecutive six (6) year period.
- There is any willful determination that involves the falsification of payroll records or the kickback of wages or supplements.

Criminal Sanctions

Willful violations of the Prevailing Wage Law (Article 8 of the Labor Law) may be a felony punishable by fine or imprisonment of up to 15 years, or both.

Discrimination

No employee or applicant for employment may be discriminated against on account of age, race, creed, color, national origin, sex, disability or marital status.

No contractor, subcontractor nor any person acting on its behalf, shall by reason of race, creed, color, disability, sex or national origin discriminate against any citizen of the State of New York who is qualified and available to perform the work to which the employment relates (NYS Labor Law, Article 8, Section 220-e(a)).

No contractor, subcontractor, nor any person acting on its behalf, shall in any manner, discriminate against or intimidate any employee on account of race, creed, color, disability, sex, or national origin (NYS Labor Law, Article 8, Section 220-e(b)).

The Human Rights Law also prohibits discrimination in employment because of age, marital status, or religion.

There may be deducted from the amount payable to the contractor under the contract a penalty of \$50.00 for each calendar day during which such person was discriminated against or intimidated in violation of the provision of the contract (NYS Labor Law, Article 8, Section 220-e(c)).

The contract may be cancelled or terminated by the State or municipality. All monies due or to become due thereunder may be forfeited for a second or any subsequent violation of the terms or conditions of the anti-discrimination sections of the contract (NYS Labor Law, Article 8, Section 220-e(d)).

Every employer subject to the New York State Human Rights Law must conspicuously post at its offices, places of employment, or employment training centers notices furnished by the State Division of Human Rights.

Workers' Compensation

In accordance with Section 142 of the State Finance Law, the contractor shall maintain coverage during the life of the contract for the benefit of such employees as required by the provisions of the New York State Workers' Compensation Law.

A contractor who is awarded a public work contract must provide proof of workers' compensation coverage prior to being allowed to begin work.

The insurance policy must be issued by a company authorized to provide workers' compensation coverage in New York State. Proof of coverage must be on form C-105.2 (Certificate of Workers' Compensation Insurance) and must name this agency as a certificate holder.

If New York State coverage is added to an existing out-of-state policy, it can only be added to a policy from a company authorized to write workers' compensation coverage in this state. The coverage must be listed under item 3A of the information page.

The contractor must maintain proof that subcontractors doing work covered under this contract secured and maintained a workers' compensation policy for all employees working in New York State.

Every employer providing worker's compensation insurance and disability benefits must post notices of such coverage in the format prescribed by the Workers' Compensation Board in a conspicuous place on the jobsite.

Unemployment Insurance

Employers liable for contributions under the Unemployment Insurance Law must conspicuously post on the jobsite notices furnished by the New York State Department of Labor.



Andrew M. Cuomo, Governor

Roberta Reardon, Commissioner

Town of North Salem

Mary Head, Engineer
Putnam Business Park
1689 Route 22
Brewster NY 10509

Schedule Year 2021 through 2022
Date Requested 08/11/2021
PRC# 2021008499

Location North Salem
Project ID#
Project Type Proposed Croton Falls Park Improvements (Phase 1)

Notice of Contract Award

New York State Labor Law, Article 8, Section 220.3a requires that certain information regarding the awarding of public work contracts, be furnished to the Commissioner of Labor. One "Notice of Contract Award" (PW 16, which may be photocopied), **MUST** be completed for **EACH** prime contractor on the above referenced project.

Upon notifying the successful bidder(s) of this contract, enter the required information and mail **OR** fax this form to the office shown at the bottom of this notice, **OR** fill out the electronic version via the NYSDOL website.

Contractor Information

All information must be supplied

Federal Employer Identification Number: _____		
Name: _____		
Address: _____ _____		
City: _____	State: _____	Zip: _____
Amount of Contract: \$ _____	Contract Type:	
Approximate Starting Date: ____/____/____	<input type="checkbox"/> (01) General Construction	
Approximate Completion Date: ____/____/____	<input type="checkbox"/> (02) Heating/Ventilation	
	<input type="checkbox"/> (03) Electrical	
	<input type="checkbox"/> (04) Plumbing	
	<input type="checkbox"/> (05) Other : _____	

Phone: (518) 457-5589 Fax: (518) 485-1870
W. Averell Harriman State Office Campus, Bldg. 12, Room 130, Albany, NY 12240

Social Security Numbers on Certified Payrolls:

The Department of Labor is cognizant of the concerns of the potential for misuse or inadvertent disclosure of social security numbers. Identity theft is a growing problem and we are sympathetic to contractors' concern regarding inclusion of this information on payrolls if another identifier will suffice.

For these reasons, the substitution of the use of the last four digits of the social security number on certified payrolls submitted to contracting agencies on public work projects is now acceptable to the Department of Labor. This change does not affect the Department's ability to request and receive the entire social security number from employers during its public work/ prevailing wage investigations.

Construction Industry Fair Play Act: Required Posting for Labor Law Article 25-B § 861-d

Construction industry employers must post the "Construction Industry Fair Play Act" notice in a prominent and accessible place on the job site. Failure to post the notice can result in penalties of up to \$1,500 for a first offense and up to \$5,000 for a second offense. The posting is included as part of this wage schedule. Additional copies may be obtained from the NYS DOL website, www.labor.ny.gov. <https://labor.ny.gov/formsdocs/ui/IA999.pdf>

If you have any questions concerning the Fair Play Act, please call the State Labor Department toll-free at 1-866-435-1499 or email us at: dol.misclassified@labor.ny.gov.

Worker Notification: (Labor Law §220, paragraph a of subdivision 3-a)

Effective June 23, 2020

This provision is an addition to the existing wage rate law, Labor Law §220, paragraph a of subdivision 3-a. It requires contractors and subcontractors to provide written notice to all laborers, workers or mechanics of the *prevailing wage and supplement rate* for their particular job classification *on each pay stub**. It also requires contractors and subcontractors to *post a notice* at the beginning of the performance of every public work contract *on each job site* that includes the telephone number and address for the Department of Labor and a statement informing laborers, workers or mechanics of their right to contact the Department of Labor if he/she is not receiving the proper prevailing rate of wages and/or supplements for his/her job classification. The required notification will be provided with each wage schedule, may be downloaded from our website www.labor.ny.gov or be made available upon request by contacting the Bureau of Public Work at 518-457-5589. *In the event the required information will not fit on the pay stub, an accompanying sheet or attachment of the information will suffice.

(12.20)

**To all State Departments, Agency Heads and Public Benefit Corporations
IMPORTANT NOTICE REGARDING PUBLIC WORK ENFORCEMENT FUND**

Budget Policy & Reporting Manual

B-610

Public Work Enforcement Fund

effective date December 7, 2005

1. Purpose and Scope:

This Item describes the Public Work Enforcement Fund (the Fund, PWEF) and its relevance to State agencies and public benefit corporations engaged in construction or reconstruction contracts, maintenance and repair, and announces the recently-enacted increase to the percentage of the dollar value of such contracts that must be deposited into the Fund. This item also describes the roles of the following entities with respect to the Fund:

- New York State Department of Labor (DOL),
- The Office of the State of Comptroller (OSC), and
- State agencies and public benefit corporations.

2. Background and Statutory References:

DOL uses the Fund to enforce the State's Labor Law as it relates to contracts for construction or reconstruction, maintenance and repair, as defined in subdivision two of Section 220 of the Labor Law. State agencies and public benefit corporations participating in such contracts are required to make payments to the Fund.

Chapter 511 of the Laws of 1995 (as amended by Chapter 513 of the Laws of 1997, Chapter 655 of the Laws of 1999, Chapter 376 of the Laws of 2003 and Chapter 407 of the Laws of 2005) established the Fund.

3. Procedures and Agency Responsibilities:

The Fund is supported by transfers and deposits based on the value of contracts for construction and reconstruction, maintenance and repair, as defined in subdivision two of Section 220 of the Labor Law, into which all State agencies and public benefit corporations enter.

Chapter 407 of the Laws of 2005 increased the amount required to be provided to this fund to .10 of one-percent of the total cost of each such contract, to be calculated at the time agencies or public benefit corporations enter into a new contract or if a contract is amended. The provisions of this bill became effective August 2, 2005.

To all State Departments, Agency Heads and Public Benefit Corporations
IMPORTANT NOTICE REGARDING PUBLIC WORK ENFORCEMENT FUND

OSC will report to DOL on all construction-related ("D") contracts approved during the month, including contract amendments, and then DOL will bill agencies the appropriate assessment monthly. An agency may then make a determination if any of the billed contracts are exempt and so note on the bill submitted back to DOL. For any instance where an agency is unsure if a contract is or is not exempt, they can call the Bureau of Public Work at the number noted below for a determination. Payment by check or journal voucher is due to DOL within thirty days from the date of the billing. DOL will verify the amounts and forward them to OSC for processing.

For those contracts which are not approved or administered by the Comptroller, monthly reports and payments for deposit into the Public Work Enforcement Fund must be provided to the Administrative Finance Bureau at the DOL within 30 days of the end of each month or on a payment schedule mutually agreed upon with DOL.

Reports should contain the following information:

- Name and billing address of State agency or public benefit corporation;
- State agency or public benefit corporation contact and phone number;
- Name and address of contractor receiving the award;
- Contract number and effective dates;
- Contract amount and PWEF assessment charge (if contract amount has been amended, reflect increase or decrease to original contract and the adjustment in the PWEF charge); and
- Brief description of the work to be performed under each contract.

Checks and Journal Vouchers, payable to the "New York State Department of Labor" should be sent to:

Department of Labor
Administrative Finance Bureau-PWEF Unit
Building 12, Room 464
State Office Campus
Albany, NY 12240

Any questions regarding billing should be directed to NYSDOL's Administrative Finance Bureau-PWEF Unit at (518) 457-3624 and any questions regarding Public Work Contracts should be directed to the Bureau of Public Work at (518) 457-5589.



Required Notice under Article 25-B of the Labor Law

**Attention All Employees, Contractors and Subcontractors:
You are Covered by the Construction Industry Fair Play Act**

The law says that you are an employee unless:

- You are free from direction and control in performing your job, **and**
- You perform work that is not part of the usual work done by the business that hired you, **and**
- You have an independently established business.

Your employer cannot consider you to be an independent contractor unless all three of these facts apply to your work.

It is against the law for an employer to misclassify employees as independent contractors or pay employees off the books.

Employee Rights: If you are an employee, you are entitled to state and federal worker protections. These include:

- Unemployment Insurance benefits, if you are unemployed through no fault of your own, able to work, and otherwise qualified,
- Workers' compensation benefits for on-the-job injuries,
- Payment for wages earned, minimum wage, and overtime (under certain conditions),
- Prevailing wages on public work projects,
- The provisions of the National Labor Relations Act, and
- A safe work environment.

It is a violation of this law for employers to retaliate against anyone who asserts their rights under the law. Retaliation subjects an employer to civil penalties, a private lawsuit or both.

Independent Contractors: If you are an independent contractor, **you must pay all taxes and Unemployment Insurance contributions required by New York State and Federal Law.**

Penalties for paying workers off the books or improperly treating employees as independent contractors:

- **Civil Penalty**
 - First offense: Up to \$2,500 per employee
 - Subsequent offense(s): Up to \$5,000 per employee
- **Criminal Penalty**
 - First offense: Misdemeanor - up to 30 days in jail, up to a \$25,000 fine and debarment from performing public work for up to one year.
 - Subsequent offense(s): Misdemeanor - up to 60 days in jail or up to a \$50,000 fine and debarment from performing public work for up to 5 years.

If you have questions about your employment status or believe that your employer may have violated your rights and you want to file a complaint, call the Department of Labor at (866) 435-1499 or send an email to dol.misclassified@labor.ny.gov. All complaints of fraud and violations are taken seriously. You can remain anonymous.

Attention Employees

THIS IS A: **PUBLIC WORK PROJECT**

If you are employed on this project as a **worker, laborer, or mechanic** you are entitled to receive the **prevailing wage and supplements rate** for the classification at which you are working.

Chapter 629 of the Labor Laws of 2007:

These wages are set by law and must be posted at the work site. They can also be found at:
www.labor.ny.gov

If you feel that you have not received proper wages or benefits, please call our nearest office.*

Albany	(518) 457-2744	Patchogue	(631) 687-4882
Binghamton	(607) 721-8005	Rochester	(585) 258-4505
Buffalo	(716) 847-7159	Syracuse	(315) 428-4056
Garden City	(516) 228-3915	Utica	(315) 793-2314
New York City	(212) 932-2419	White Plains	(914) 997-9507
Newburgh	(845) 568-5156		

* For New York City government agency construction projects, please contact the Office of the NYC Comptroller at (212) 669-4443, or www.comptroller.nyc.gov – click on Bureau of Labor Law.

Contractor Name: _____

Project Location: _____

Requirements for OSHA 10 Compliance

Article 8 §220-h requires that when the advertised specifications, for every contract for public work, is \$250,000.00 or more the contract must contain a provision requiring that every worker employed in the performance of a public work contract shall be certified as having completed an OSHA 10 safety training course. The clear intent of this provision is to require that all employees of public work contractors, required to be paid prevailing rates, receive such training "prior to the performing any work on the project."

The Bureau will enforce the statute as follows:

All contractors and sub contractors must attach a copy of proof of completion of the OSHA 10 course to the first certified payroll submitted to the contracting agency and on each succeeding payroll where any new or additional employee is first listed.

Proof of completion may include but is not limited to:

- Copies of bona fide course completion card (*Note: Completion cards do not have an expiration date.*)
- Training roster, attendance record or other documentation from the certified trainer pending the issuance of the card.
- Other valid proof

**A certification by the employer attesting that all employees have completed such a course is not sufficient proof that the course has been completed.

Any questions regarding this statute may be directed to the New York State Department of Labor, Bureau of Public Work at 518-457-5589.

WICKS

Public work projects are subject to the Wicks Law requiring separate specifications and bidding for the plumbing, heating and electrical work, when the total project's threshold is \$3 million in Bronx, Kings, New York, Queens and, Richmond counties; \$1.5 million in Nassau, Suffolk and Westchester counties; and \$500,000 in all other counties.

For projects below the monetary threshold, bidders must submit a sealed list naming each subcontractor for the plumbing, HVAC and electrical and the amount to be paid to each. The list may not be changed unless the public owner finds a legitimate construction need, including a change in specifications or costs or the use of a Project Labor Agreement (PLA), and must be open to public inspection.

Allows the state and local agencies and authorities to waive the Wicks Law and use a PLA if it will provide the best work at the lowest possible price. If a PLA is used, all contractors shall participate in apprentice training programs in the trades of work it employs that have been approved by the Department of Labor (DOL) for not less than three years. They shall also have at least one graduate in the last three years and use affirmative efforts to retain minority apprentices. PLA's would be exempt from Wicks, but deemed to be public work subject to prevailing wage enforcement.

The Commissioner of Labor shall have the power to enforce separate specification requirements on projects, and may issue stop-bid orders against public owners for non-compliance.

Other new monetary thresholds, and similar sealed bidding for non-Wicks projects, would apply to certain public authorities including municipal housing authorities, NYC Construction Fund, Yonkers Educational Construction Fund, NYC Municipal Water Finance Authority, Buffalo Municipal Water Finance Authority, Westchester County Health Care Association, Nassau County Health Care Corp., Clifton-Fine Health Care Corp., Erie County Medical Center Corp., NYC Solid Waste Management Facilities, and the Dormitory Authority.

Contractors must pay subcontractors within a 7 days period.

(07.19)

Introduction to the Prevailing Rate Schedule

Information About Prevailing Rate Schedule

This information is provided to assist you in the interpretation of particular requirements for each classification of worker contained in the attached Schedule of Prevailing Rates.

Classification

It is the duty of the Commissioner of Labor to make the proper classification of workers taking into account whether the work is heavy and highway, building, sewer and water, tunnel work, or residential, and to make a determination of wages and supplements to be paid or provided. It is the responsibility of the public work contractor to use the proper rate. If there is a question on the proper classification to be used, please call the district office located nearest the project. District office locations and phone numbers are listed below.

Prevailing Wage Schedules are issued separately for "General Construction Projects" and "Residential Construction Projects" on a county-by-county basis.

General Construction Rates apply to projects such as: Buildings, Heavy & Highway, and Tunnel and Water & Sewer rates.

Residential Construction Rates generally apply to construction, reconstruction, repair, alteration, or demolition of one family, two family, row housing, or rental type units intended for residential use.

Some rates listed in the Residential Construction Rate Schedule have a very limited applicability listed along with the rate. Rates for occupations or locations not shown on the residential schedule must be obtained from the General Construction Rate Schedule. Please contact the local Bureau of Public Work office before using Residential Rate Schedules, to ensure that the project meets the required criteria.

Payrolls and Payroll Records

Contractors and subcontractors are required to establish, maintain, and preserve for not less than six (6) years, contemporaneous, true, and accurate payroll records.

Every contractor and subcontractor shall submit to the Department of Jurisdiction (Contracting Agency), within thirty (30) days after issuance of its first payroll and every thirty (30) days thereafter, a transcript of the original payrolls, subscribed and affirmed as true under penalty of perjury.

Paid Holidays

Paid Holidays are days for which an eligible employee receives a regular day's pay, but is not required to perform work. If an employee works on a day listed as a paid holiday, this remuneration is in addition to payment of the required prevailing rate for the work actually performed.

Overtime

At a minimum, all work performed on a public work project in excess of eight hours in any one day or more than five days in any workweek is overtime. However, the specific overtime requirements for each trade or occupation on a public work project may differ. Specific overtime requirements for each trade or occupation are contained in the prevailing rate schedules.

Overtime holiday pay is the premium pay that is required for work performed on specified holidays. It is only required where the employee actually performs work on such holidays.

The applicable holidays are listed under HOLIDAYS: OVERTIME. The required rate of pay for these covered holidays can be found in the OVERTIME PAY section listings for each classification.

Supplemental Benefits

Particular attention should be given to the supplemental benefit requirements. Although in most cases the payment or provision of supplements is straight time for all hours worked, some classifications require the payment or provision of supplements, or a portion of the supplements, to be paid or provided at a premium rate for premium hours worked. Supplements may also be required to be paid or provided on paid holidays, regardless of whether the day is worked. The Overtime Codes and Notes listed on the particular wage classification will indicate these conditions as required.

Effective Dates

When you review the schedule for a particular occupation, your attention should be directed to the dates above the column of rates. These are the dates for which a given set of rates is effective. The rate listed is valid until the next effective rate change or until the new annual determination which takes effect on July 1 of each year. All contractors and subcontractors are required to pay the current prevailing rates of wages and supplements. If you have any questions please contact the Bureau of Public Work or visit the New York State Department of Labor website (www.labor.ny.gov) for current wage rate information.

Apprentice Training Ratios

The following are the allowable ratios of registered Apprentices to Journey-workers.

For example, the ratio 1:1,1:3 indicates the allowable initial ratio is one Apprentice to one Journeyworker. The Journeyworker must be in place on the project before an Apprentice is allowed. Then three additional Journeyworkers are needed before a second Apprentice is allowed. The last ratio repeats indefinitely. Therefore, three more Journeyworkers must be present before a third Apprentice can be hired, and so on.

Please call Apprentice Training Central Office at (518) 457-6820 if you have any questions.

Title (Trade)	Ratio
Boilermaker (Construction)	1:1,1:4
Boilermaker (Shop)	1:1,1:3
Carpenter (Bldg.,H&H, Pile Driver/Dockbuilder)	1:1,1:4
Carpenter (Residential)	1:1,1:3
Electrical (Outside) Lineman	1:1,1:2
Electrician (Inside)	1:1,1:3
Elevator/Escalator Construction & Modernizer	1:1,1:2
Glazier	1:1,1:3
Insulation & Asbestos Worker	1:1,1:3
Iron Worker	1:1,1:4
Laborer	1:1,1:3
Mason	1:1,1:4
Millwright	1:1,1:4
Op Engineer	1:1,1:5
Painter	1:1,1:3
Plumber & Steamfitter	1:1,1:3
Roofer	1:1,1:2
Sheet Metal Worker	1:1,1:3
Sprinkler Fitter	1:1,1:2

If you have any questions concerning the attached schedule or would like additional information, please contact the nearest BUREAU of PUBLIC WORK District Office or write to:

New York State Department of Labor
Bureau of Public Work
State Office Campus, Bldg. 12
Albany, NY 12240

District Office Locations:	Telephone #	FAX #
Bureau of Public Work - Albany	518-457-2744	518-485-0240
Bureau of Public Work - Binghamton	607-721-8005	607-721-8004
Bureau of Public Work - Buffalo	716-847-7159	716-847-7650
Bureau of Public Work - Garden City	516-228-3915	516-794-3518
Bureau of Public Work - Newburgh	845-568-5287	845-568-5332
Bureau of Public Work - New York City	212-932-2419	212-775-3579
Bureau of Public Work - Patchogue	631-687-4882	631-687-4902
Bureau of Public Work - Rochester	585-258-4505	585-258-4708
Bureau of Public Work - Syracuse	315-428-4056	315-428-4671
Bureau of Public Work - Utica	315-793-2314	315-793-2514
Bureau of Public Work - White Plains	914-997-9507	914-997-9523
Bureau of Public Work - Central Office	518-457-5589	518-485-1870

Westchester County General Construction

Boilermaker

08/01/2021

JOB DESCRIPTION Boilermaker

DISTRICT 4

ENTIRE COUNTIES

Bronx, Dutchess, Kings, Nassau, New York, Orange, Putnam, Queens, Richmond, Rockland, Suffolk, Sullivan, Ulster, Westchester

WAGES

Per Hour: 07/01/2021

Boilermaker	\$ 63.38
Repairs & Renovations	63.38

SUPPLEMENTAL BENEFITS

Per Hour: 07/01/2021

Boilermaker	32% of hourly
Repair & Renovations	Wage Paid
	+ \$ 25.38

NOTE: "Hourly Wage Paid" shall include any and all premium(s) pay.

Repairs & Renovation Includes replacement of parts and repairs & renovation of existing unit.

OVERTIME PAY

See (D, O) on OVERTIME PAGE

Repairs & Renovation see (B,E,Q)

HOLIDAY

Paid: See (8, 16, 23, 24) on HOLIDAY PAGE

Overtime: See (5, 6, 8, 11, 12, 15, 16, 22, 23, 24, 25) on HOLIDAY PAGE

NOTE: *Employee must work in pay week to receive Holiday Pay.

**Employee gets 4 times the hourly wage rate for working Labor Day.

REGISTERED APPRENTICES

Wage per hour:

(1/2) Year Terms at the following percentage of Boilermaker's Wage

1st	2nd	3rd	4th	5th	6th	7th
65%	70%	75%	80%	85%	90%	95%

Supplemental Benefits Per Hour:

	07/01/2021
Apprentice(s)	32% of Hourly
	Wage Paid Plus
	Amount Below

1st Term	\$ 19.41
2nd Term	20.26
3rd Term	21.11
4th Term	21.96
5th Term	22.82
6th Term	23.68
7th Term	24.52

NOTE: "Hourly Wage Paid" shall include any and all premium(s)

4-5

Carpenter

08/01/2021

JOB DESCRIPTION Carpenter

DISTRICT 8

ENTIRE COUNTIES

Bronx, Kings, Nassau, New York, Putnam, Queens, Richmond, Rockland, Suffolk, Westchester

WAGES

Per hour: 07/01/2021

Piledriver	\$ 56.93
Dockbuilder	\$ 56.93

SUPPLEMENTAL BENEFITS

Per hour:

Journeyworker \$ 53.33

OVERTIME PAY

See (B, E2, O) on OVERTIME PAGE

HOLIDAY

Paid: See (1) on HOLIDAY PAGE.

Paid: for 1st & 2nd yr.

Apprentices See (5,6,11,13,25)

Overtime: See (5,6,11,13,25) on HOLIDAY PAGE.

REGISTERED APPRENTICES

Wages per hour

(1)year terms:

1st	2nd	3rd	4th
\$23.37	\$28.97	\$37.35	\$45.74

Supplemental benefits per hour:

All Terms: \$ 35.33

8-1556 Db

Carpenter

08/01/2021

JOB DESCRIPTION Carpenter

DISTRICT 8

ENTIRE COUNTIES

Bronx, Kings, Nassau, New York, Queens, Richmond, Rockland, Suffolk, Westchester

WAGES

Per hour: 07/01/2021

Carpet/Resilient

Floor Coverer \$ 54.75

INCLUDES HANDLING & INSTALLATION OF ARTIFICIAL TURF AND SIMILAR TURF INDOORS/OUTDOORS.

SUPPLEMENTAL BENEFITS

Per hour:

\$ 46.97

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

HOLIDAY

Paid: See (18, 19) on HOLIDAY PAGE.

Paid for 1st & 2nd yr.

Apprentices See (5,6,11,13,16,18,19,25)

Overtime: See (5,6,11,13,16,18,19,25) on HOLIDAY PAGE.

REGISTERED APPRENTICES

Wage per hour - (1) year terms:

1st	2nd	3rd	4th
\$ 24.55	\$ 27.55	\$ 31.80	\$ 39.68

Supplemental benefits per hour:

1st	2nd	3rd	4th
\$ 16.19	\$ 17.69	\$ 21.29	\$ 23.29

8-2287

Carpenter

08/01/2021

JOB DESCRIPTION Carpenter

DISTRICT 8

ENTIRE COUNTIES

Bronx, Dutchess, Kings, Nassau, New York, Orange, Putnam, Queens, Richmond, Rockland, Suffolk, Westchester

WAGES

Per Hour: 07/01/2021

Marine Construction:

Marine Diver	\$ 71.80
Marine Tender	51.34

SUPPLEMENTAL BENEFITS

Per Hour:

Journeyworker \$ 53.33

OVERTIME PAY

See (B, E, E2, Q) on OVERTIME PAGE

HOLIDAY

Paid: See (18, 19) on HOLIDAY PAGE

Overtime: See (5, 6, 10, 11, 13, 16, 18, 19) on HOLIDAY PAGE

REGISTERED APPRENTICES

Wages per hour:

One (1) year terms.

1st year	\$ 23.37
2nd year	28.97
3rd year	37.35
4th year	45.74

Supplemental Benefits

Per Hour:

All terms \$ 35.33

8-1456MC

Carpenter

08/01/2021

JOB DESCRIPTION Carpenter

DISTRICT 8

ENTIRE COUNTIES

Bronx, Kings, Nassau, New York, Putnam, Queens, Richmond, Rockland, Suffolk, Westchester

WAGES

Per hour: 07/01/2021

Building	
Millwright	\$ 57.00

SUPPLEMENTAL BENEFITS

Per hour:

Millwright \$ 54.60

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

HOLIDAY

Paid: See (18,19) on HOLIDAY PAGE.

Overtime See (5,6,8,11,13,18,19,25) on HOLIDAY PAGE.

REGISTERED APPRENTICES

Wages per hour:

One (1) year terms:

1st.	2nd.	3rd.	4th.
\$30.74	\$36.19	\$41.64	\$52.54

Supplemental benefits per hour:

One (1) year terms:

1st.	2nd.	3rd.	4th.
------	------	------	------

\$35.03 \$38.73 \$43.08 \$49.84

8-740.1

Carpenter

08/01/2021

JOB DESCRIPTION Carpenter

DISTRICT 8

ENTIRE COUNTIES

Bronx, Kings, Nassau, New York, Queens, Richmond, Suffolk, Westchester

WAGES

Per Hour:

07/01/2021

Timberman

\$ 52.05

SUPPLEMENTAL BENEFITS

Per Hour:

07/01/2021

\$ 52.78

OVERTIME PAY

See (B, E, E2, Q) on OVERTIME PAGE

HOLIDAY

Paid: See (1) on HOLIDAY PAGE.

Paid: for 1st & 2nd yr.

Apprentices See (5,6,11,13,25)

Overtime: See (5,6,11,13,25) on HOLIDAY PAGE.

REGISTERED APPRENTICES

Wages per hour:

One (1) year terms:

1st	2nd	3rd	4th
\$21.42	\$26.53	\$34.18	\$41.84

Supplemental benefits per hour:

All terms \$ 35.06

8-1556 Tm

Carpenter

08/01/2021

JOB DESCRIPTION Carpenter

DISTRICT 8

ENTIRE COUNTIES

Bronx, Kings, Nassau, New York, Queens, Richmond, Rockland, Westchester

PARTIAL COUNTIES

Orange: South of but including the following, Waterloo Mills, Slate Hill, New Hampton, Goshen, Blooming Grove, Mountainville, east to the Hudson River.

Putnam: South of but including the following, Cold Spring, Tompkins Corner, Mahopac, Croton Falls, east to Connecticut border.

Suffolk: West of Port Jefferson and Patchogue Road to Route 112 to the Atlantic Ocean.

WAGES

Per hour: 07/01/2021 10/18/2021

Core Drilling:

Driller \$ 41.74 \$ 42.27

Driller Helper 32.92 33.47

Note: Hazardous Waste Pay Differential:

For Level C, an additional 10% above wage rate per hour

For Level B, an additional 10% above wage rate per hour

For Level A, an additional 10% above wage rate per hour

Note: When required to work on water: an additional \$ 0.50 per hour.

SUPPLEMENTAL BENEFITS

Per hour:

Driller and Helper \$ 29.40

H-24 \$ 30.60
Page 23

OVERTIME PAY

OVERTIME: See (B,E,K*,P,R**) on OVERTIME PAGE.

HOLIDAY

Paid: See (5,6) on HOLIDAY PAGE.

Overtime: * See (5,6) on HOLIDAY PAGE.

** See (8,10,11,13) on HOLIDAY PAGE.

8-1536-CoreDriller

Carpenter - Building / Heavy&Highway

08/01/2021

JOB DESCRIPTION Carpenter - Building / Heavy&Highway

DISTRICT 11

ENTIRE COUNTIES

Putnam, Rockland, Westchester

WAGES

WAGES:(per hour)

07/01/2021

BUILDING/HEAVY & HIGHWAY/TUNNEL:

Carpenter

Base Wage

\$ 37.69

+ \$7.63*

*For all hours paid straight or premium.

SHIFT DIFFERENTIAL: When it is mandated by a Government Agency irregular or off shift can be worked. The Carpenter shall receive an additional fifteen percent (15%) of wage plus applicable benefits.

NOTE: Carpenters employed in the removal or abatement of asbestos or any toxic or hazardous material or required to work near asbestos or any toxic or hazardous material and required to wear protective equipment shall receive two (2) hours extra pay per day, plus applicable supplemental benefits.

SUPPLEMENTAL BENEFITS

Per hour:

Journeyworker

\$ 31.91

OVERTIME PAY

BUILDING:

See (B, E, Q) on OVERTIME PAGE.

HEAVY&HIGHWAY/TUNNEL:

See (B, E, P, *R, **T, X) on OVERTIME PAGE.

*R applies to Heavy&Highway/Tunnel Overtime Holiday Code 25 with benefits at straight time rate.

**T applies to Heavy&Highway/Tunnel Overtime Holiday Codes 5 & 6 with benefits at straight time rate.

HOLIDAY

BUILDING:

Paid: See (1) on HOLIDAY PAGE.

Overtime: See (5, 6, 16, 25) on HOLIDAY PAGE.

Holidays that fall on Sunday will be observed Monday.

HEAVY&HIGHWAY/TUNNEL:

Paid: See (5, 6, 25) on HOLIDAY PAGE including benefits.

Overtime: See (5, 6, 25) on HOLIDAY PAGE.

REGISTERED APPRENTICES

1 year terms at the following wage rates:

Indentured before July 1 2016

1st	2nd	3rd	4th
\$ 18.85	\$ 22.61	\$ 26.38	\$ 30.15
+3.57*	+3.57*	+3.57*	+3.57*

Indentured after July 1 2016

1st	2nd	3rd	4th	5th
\$ 18.85	\$ 22.61	\$ 24.50	\$ 26.38	\$ 30.15
+3.57*	+3.57*	+3.57*	+3.57*	+3.57*

*For all hours paid straight or premium

SUPPLEMENTAL BENEFITS per hour:

All terms \$ 16.28

11-279.1B/HH

Electrician

08/01/2021

JOB DESCRIPTION Electrician

DISTRICT 9

ENTIRE COUNTIES

Bronx, Kings, New York, Queens, Richmond, Westchester

WAGES

Per hour: 07/01/2021

Service Technician \$ 34.40

Service and Maintenance on Alarm and Security Systems.

Maintenance, repair and /or replacement of defective (or damaged) equipment on, but not limited to, Burglar - Fire - Security - CCTV - Card Access - Life Safety Systems and associated devices. (Whether by service contract of T&M by customer request.)

SUPPLEMENTAL BENEFITS

Per hour:

Journeyworker: \$ 19.32

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

HOLIDAY

Paid: See (5, 6, 11, 15, 16, 17, 25, 26) on HOLIDAY PAGE

Overtime: See (5, 6, 11, 15, 16, 17, 25, 26) on HOLIDAY PAGE

9-3H

Electrician

08/01/2021

JOB DESCRIPTION Electrician

DISTRICT 8

ENTIRE COUNTIES

Westchester

WAGES

Per hour: 07/01/2021 04/21/2022

*Electrician/A-Technician \$ 53.75 \$ 53.75

Teledata 53.75 53.75

*All new installations of wiring, conduit, junction boxes and light fixtures for projects with a base bid of more than \$325,000. For projects with a base bid of \$325,000 or less, see Maintenance and Repair rates.

Note: On a job where employees are required to work on bridges over navigable waters, transmission towers, light poles, bosun chairs, swinging scaffolds, etc. 40 feet or more above the water or ground or under compressed air, or tunnel projects under construction or where assisted breathing apparatus is required, they will be paid at the rate of time and one-half for such work except on normal pole line or building construction work.

SUPPLEMENTAL BENEFITS

Per hour:

Journeyworker \$ 52.73 \$ 54.39

OVERTIME PAY

See (A, G, *J, P) on OVERTIME PAGE

*NOTE: Emergency work on Sunday and Holidays is at the time and one-half overtime rate.

HOLIDAY

Paid: See (1) on HOLIDAY PAGE

Overtime: See (5, 6, 8, 11, 15, 16, 25) on HOLIDAY PAGE

REGISTERED APPRENTICES

(1) year terms at the following wage rates:

	07/01/2021	01/01/2022	04/21/2022
1st term	\$ 14.00	\$ 15.00	\$ 15.00
2nd term	16.00	16.00	16.00
3rd term	18.00	18.00	18.00
4th term	20.00	20.00	20.00
MIJ 1-12 months	24.00	24.00	25.00
MIJ 13-18 months	27.50	27.50	28.50

Supplemental Benefits per hour:

	07/01/2021	04/21/2022
1st term	\$ 10.15	\$ 10.82
2nd term	13.05	13.05
3rd term	14.39	14.39
4th term	15.72	15.72
MIJ 1-12 months	13.39	13.49
MIJ 13-18 months	13.76	13.87

8-3/W

Electrician

08/01/2021

JOB DESCRIPTION Electrician

DISTRICT 8

ENTIRE COUNTIES

Westchester

WAGES

	07/01/2021	04/21/2022
Electrician -M	\$ 27.50	\$28.50
H - Telephone	\$ 27.50	\$28.50

All work with a base bid amount of \$325,000 or less. Including repairs and /or replacement of defective electrical and teledata equipment, all work necessary to retrofit, service, maintain and repair all kinds of lighting fixtures and local lighting controls, and washing and cleaning of foregoing fixtures.

*If the project exceeds \$375,000 due to changes in the scope of work, an Electrician/A Technician must be part of the labor ratio.

SUPPLEMENTAL BENEFITS

	07/01/2021	04/21/2022
Electrician &		
H - Telephone	\$ 13.76	\$13.87

OVERTIME PAY

See (B, G, *J, P) on OVERTIME PAGE

*Note: Emergency work on Sunday and Holidays is at the time and one-half overtime rate.

HOLIDAY

Paid: See (1) on HOLIDAY PAGE
Overtime: See (5, 6, 8, 11, 15, 16, 25) on HOLIDAY PAGE

8-3m

Elevator Constructor

08/01/2021

JOB DESCRIPTION Elevator Constructor

DISTRICT 4

ENTIRE COUNTIES

Bronx, Kings, Nassau, New York, Queens, Richmond, Suffolk

PARTIAL COUNTIES

Rockland: Entire County except for the Township of Stony Point

Westchester: Entire County except for the Townships of Bedford, Lewisboro, Cortland, Mt. Kisco, North Salem, Pound Ridge, Somers and Yorktown.

WAGES

Per hour:		
	07/01/2021	03/17/2022
Elevator Constructor	\$ 72.29	\$ 75.14
Modernization & Service/Repair	56.77	59.09

Four(4), ten(10) hour days may be worked at straight time during a week, Monday thru Friday.

NOTE- In order to use the '4 Day/10 Hour Work Schedule', as your normal schedule, you must submit an 'Employer Registration for Use of 4 Day/10 Hour Work Schedule' form PW30.1; and there must be a dispensation of hours in place on the project. If the PW30.1 IS NOT SUBMITTED you will be liable for overtime payments for work over the allotted hours per day listed.

SUPPLEMENTAL BENEFITS

Per Hour:

Elevator Constructor	\$ 41.92	\$ 43.914
Modernization & Service/Repairs	41.082	42.787

OVERTIME PAY

Constructor See (D, M, T) on OVERTIME PAGE.

Modern/Service See (B, F, S) on OVERTIME PAGE.

HOLIDAY

Paid: See (5, 6, 8, 11, 15, 16, 25) on HOLIDAY PAGE
Overtime: See (5, 6, 8, 11, 15, 16, 25) on HOLIDAY PAGE

REGISTERED APPRENTICES

WAGES PER HOUR:

*Note: 1st Term is based on Average wage of Constructor & Modernization.
Terms 2 thru 4 Based on Journeymans wage of classification Working in.

1 YEAR TERMS:

1st Term*	2nd Term	3rd Term	4th Term
50%	55%	65%	75%

SUPPLEMENTAL BENEFITS

Elevator Constructor		
1st Term	\$ 34.05	\$ 34.772
2nd Term	34.91	35.606
3rd Term	36.30	37.052
4th Term	37.70	38.497

Modernization & Service/Repair

1st Term	\$ 34.00	\$ 34.672
2nd Term	34.50	35.195
3rd Term	35.83	36.571
4th Term	37.15	37.938

4-1

Elevator Constructor

08/01/2021

JOB DESCRIPTION Elevator Constructor

DISTRICT 1

ENTIRE COUNTIES

Columbia, Dutchess, Greene, Orange, Putnam, Sullivan, Ulster

PARTIAL COUNTIES

Delaware: Towns of Andes, Bovina, Colchester, Davenport, Delhi, Harpersfield, Hemdon, Kortright, Meredith, Middletown, Roxbury, Hancock & Stamford

Rockland: Only the Township of Stony Point.

Westchester: Only the Townships of Bedford, Lewisboro, Cortland, Mt. Kisco, North Salem, Pound Ridge, Somers and Yorktown.

WAGES

Per Hour	07/01/2021	01/01/2022
Mechanic	\$ 62.51	\$ 64.63
Helper	70% of Mechanic Wage Rate	70% of Mechanic Wage Rate

Four (4), ten (10) hour days may be worked for New Construction and Modernization Work at straight time during a week, Monday thru Thursday or Tuesday thru Friday.

***Four (4), ten (10) hour days are not permitted for Contract Work/Repair Work

NOTE - In order to use the '4 Day/10 Hour Work Schedule' as your normal schedule, you must submit an 'Employer Registration for Use of 4 Day/10 Hour Work Schedule', form PW30.1; and there must be a dispensation of hours in place on the project. If the PW30.1 is not submitted you may be liable for overtime payments for work over 8 hours per day.

SUPPLEMENTAL BENEFITS

Per hour	07/01/2021	01/01/2022
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Journeyman/Helper
\$ 35.825* \$ 36.885*

(*)Plus 6% of regular hourly if less than 5 years of service. Plus 8% of regular hourly rate if more than 5 years of service.

OVERTIME PAY

See (D, O) on OVERTIME PAGE

HOLIDAY

Paid: See (5, 6, 15, 16) on HOLIDAY PAGE

Overtime: See (5, 6, 15, 16) on HOLIDAY PAGE

Note: When a paid holiday falls on Saturday, it shall be observed on Friday. When a paid holiday falls on Sunday, it shall be observed on Monday.

REGISTERED APPRENTICES

Wages per hour:

0-6 mo*	6-12 mo	2nd yr	3rd yr	4th yr
50 %	55 %	65 %	70 %	80 %

(*)Plus 6% of the hourly rate, no additional supplemental benefits.

Supplemental Benefits per hour worked:

Same as Journeyman/Helper

1-138

Glazier	08/01/2021
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JOB DESCRIPTION Glazier

DISTRICT 8

ENTIRE COUNTIES

Bronx, Dutchess, Kings, Nassau, New York, Orange, Putnam, Queens, Richmond, Rockland, Suffolk, Sullivan, Ulster, Westchester

WAGES

Per hour:	7/01/2021	11/01/2021
Glazier	\$ 58.60	+ \$1.25
*Scaffolding	59.55	
Glass Tinting & Window Film	29.60	
**Repair & Maintenance	29.60	

*Scaffolding includes swing scaffold, mechanical equipment, scissor jacks, man lifts, booms & buckets 24' or more, but not pipe scaffolding.

**Repair & Maintenance- All repair & maintenance work on a particular building, whenever performed, where the total cumulative contract value is under \$148,837. All Glass tinting, window film, regardless of material or intended use, and all affixing of decals to windows or glass.

SUPPLEMENTAL BENEFITS

Per hour:	7/01/2021
Journeyworker	\$ 36.04
Glass tinting & Window Film	21.19
Repair & Maintenance	21.19

OVERTIME PAY

See (B,H,V) on OVERTIME PAGE.

For 'Repair & Maintenance' and 'Glass Tinting & Window Film' see (B, B2, I, S) on overtime page.

HOLIDAY

Paid: See (1) on HOLIDAY PAGE

Overtime: See (4, 6, 16, 25) on HOLIDAY PAGE

For 'Repair & Maintenance' and 'Glass Tinting & Window Film' Only

Paid: See(5, 6, 16, 25)

Overtime: See(5, 6, 16, 25)

REGISTERED APPRENTICES

Wage per hour:

(1) year terms at the following wage rates:

	7/01/2021
1st term	\$ 20.72

2nd term	28.66
3rd term	34.67
4th term	46.62

Supplemental Benefits:

(Per hour)

1st term	\$ 16.58
2nd term	23.57
3rd term	26.09
4th term	30.91

8-1087 (DC9 NYC)

Insulator - Heat & Frost

08/01/2021

JOB DESCRIPTION Insulator - Heat & Frost

DISTRICT 8

ENTIRE COUNTIES

Dutchess, Orange, Putnam, Rockland, Westchester

WAGES

Per hour:	07/01/2021	05/31/2022
Insulator	\$ 56.25	+ \$ 2.00
Discomfort & Additional Training**	59.22	+ \$ 2.00
Fire Stop Work*	30.07	+ \$ 2.00

* Applies on all exclusive Fire Stop Work (When contract is for Fire Stop work only). No apprentices on these contracts only.

**Applies to work requiring: garb or equipment worn against the body not customarily worn by insulators; psychological evaluation; special training, including but not limited to "Yellow Badge" radiation training

Note: Additional \$0.50 per hour for work 30 feet or more above floor or ground level.

SUPPLEMENTAL BENEFITS

Per hour:

Journeyworker	\$ 35.10
Discomfort & Additional Training	37.06
Fire Stop Work:	
Journeyworker	17.90

OVERTIME PAY

See (B, E, E2, Q, *T) on OVERTIME PAGE

HOLIDAY

Paid: See (1) on HOLIDAY PAGE

Note: Last working day preceding Christmas and New Years day, workers shall work no later than 12:00 noon and shall receive 8 hrs pay.

Overtime: See (2*, 4, 6, 16, 25) on HOLIDAY PAGE.

*Note: Labor Day triple time if worked.

REGISTERED APPRENTICES

(1) year terms:

Insulator Apprentices:

1st	2nd	3rd	4th
\$ 30.07	\$ 35.30	\$ 40.54	\$ 45.78

Discomfort & Additional Training Apprentices:

1st	2nd	3rd	4th
\$ 31.55	\$ 37.08	\$ 42.61	\$ 48.16

Supplemental Benefits paid per hour:

Insulator Apprentices:

1st term	\$ 17.90
----------	----------

2nd term	21.35
3rd term	24.79
4th term	28.23

Discomfort & Additional Training Apprentices:

1st term	\$ 18.89
2nd term	22.52
3rd term	26.16
4th term	29.80

8-91

Ironworker

08/01/2021

JOB DESCRIPTION Ironworker

DISTRICT 9

ENTIRE COUNTIES

Bronx, Kings, Nassau, New York, Queens, Richmond, Suffolk, Westchester

WAGES

Per Hour: 07/01/2021

Ironworker Rigger \$ 67.99

Ironworker Stone
Derrickman \$ 67.99

SUPPLEMENTAL BENEFITS

Per hour: \$ 41.44

OVERTIME PAY

See (B, D1, *E, Q, **V) on OVERTIME PAGE

*Time and one-half shall be paid for all work on Saturday up to eight (8) hours and double time shall be paid for all work thereafter.

** Benefits same premium as wages on Holidays only

HOLIDAY

Paid: See (18) on HOLIDAY PAGE

Overtime: See (5, 6, 8, 25) on HOLIDAY PAGE

*Work stops at schedule lunch break with full day's pay.

REGISTERED APPRENTICES

Wage per hour:

1/2 year terms at the following hourly wage rate:

	1st	2nd	3rd	4th
07/01/2021	\$33.55	\$47.94	\$53.34	\$58.74

Supplemental benefits:

Per hour:				
07/01/2021	\$21.18	\$31.45	\$31.45	\$31.45

9-197D/R

Ironworker

08/01/2021

JOB DESCRIPTION Ironworker

DISTRICT 4

ENTIRE COUNTIES

Bronx, Kings, Nassau, New York, Queens, Richmond, Suffolk, Westchester

WAGES

Per Hour:	07/01/2021	01/01/2022
		Additional
		\$ 1.25

Ornamental	\$ 46.15
Chain Link Fence	46.15
Guide Rail	46.15

SUPPLEMENTAL BENEFITS

Per hour:	
Journeyworker:	\$ 60.05

OVERTIME PAY

See (B, B1, Q, V) on OVERTIME PAGE

HOLIDAY

Paid: See (1) on HOLIDAY PAGE
Overtime: See (5, 6, 25) on HOLIDAY PAGE

REGISTERED APPRENTICES

Apprentices hired before 8/31/2018:

(1/2) year terms at the following percentage of Journeyman's wage.

5th Term 80%

Supplemental Benefits per hour:

5th Term 54.03

Apprentices Hired after 9/1/18:

1 year terms

1st Term \$ 20.63

2nd Term 24.22

3rd Term 27.80

4th Term 31.38

Supplemental Benefits per hour:

1st Term \$ 17.89

2nd Term 19.14

3rd Term 20.40

4th Term 21.66

4-580-Or

Ironworker

08/01/2021

JOB DESCRIPTION Ironworker

DISTRICT 4

ENTIRE COUNTIES

Bronx, Kings, Nassau, New York, Queens, Richmond, Suffolk, Westchester

WAGES

PER HOUR:

07/01/2021

01/01/2022

Ironworker:

Structural \$ 54.20

Additional \$ 1.75/Hr.

Bridges

Machinery

SUPPLEMENTAL BENEFITS

PER HOUR PAID:

Journeyman \$ 82.35

OVERTIME PAY

See (B, B1, Q, *V) on OVERTIME PAGE

*NOTE: Benefits are calculated for every hour paid

HOLIDAY

Paid: See (1) on HOLIDAY PAGE

Overtime: See (5, 6, 18, 19) on HOLIDAY PAGE

REGISTERED APPRENTICES

WAGES PER HOUR:

6 month terms at the following rate:

1st \$28.21

2nd \$28.81

3rd - 6th \$29.42

Supplemental Benefits

PER HOUR PAID:

All Terms \$56.90

4-40/361-Str

Ironworker

08/01/2021

JOB DESCRIPTION Ironworker

DISTRICT 4

ENTIRE COUNTIES

Bronx, Kings, Nassau, New York, Queens, Richmond, Suffolk, Westchester

PARTIAL COUNTIES

Rockland: Southern section - south of Convent Road and east of Blue Hills Road.

WAGES

Per hour: 07/01/2021

Reinforcing &
Metal Lathing \$ 56.25

"Base" Wage \$ 54.70
plus \$ 1.55

"Base" Wage is used to calculate overtime hours only.

SUPPLEMENTAL BENEFITS

Per hour:
Reinforcing & Metal Lathing \$ 38.30

OVERTIME PAY

See (B, E, Q, *X) on OVERTIME PAGE

*Only \$22.00 per Hour for non worked hours

Supplemental Benefit Premiums for Overtime Hours worked:

Time & One Half \$ 45.08
Double Time \$ 51.33

HOLIDAY

Paid: See (1) on HOLIDAY PAGE
Overtime: See (5, 6, 11, 13, 18, 19, 25) on HOLIDAY PAGE

REGISTERED APPRENTICES

(1) year terms at the following wage rates:

1st term	2nd term	3rd term	4th Term
Wage Per Hour: \$ 22.55	\$ 28.38	\$ 34.68	\$ 37.18
"Base" Wage \$ 21.00 plus \$1.55	\$ 26.80 plus \$1.58	\$ 33.10 plus \$1.58	\$ 35.60 plus \$1.58

"Base" Wage is used to calculate overtime hours ONLY.

SUPPLEMENTAL BENEFITS

Per Hour:

1st term	2nd term	3rd term	4th Term
\$ 18.17	\$ 21.34	\$ 22.00	\$ 20.50

4-46Reinf

Laborer - Building

08/01/2021

JOB DESCRIPTION Laborer - Building

DISTRICT 8

ENTIRE COUNTIES

Putnam, Westchester

WAGES

07/01/2021

Laborer \$ 36.40
plus \$5.05**

Laborer - Asbestos & Hazardous
Materials Removal \$ 43.10*

* Abatement/Removal of:

- Lead based or lead containing paint on materials to be repainted is classified as Painter.
- Asbestos containing roofs and roofing material is classified as Roofer.

** This portion is not subject to overtime premium.

NOTE: Upgrade/Material condition work plan for work performed during non-outage under a wage formula of 90% wage/100% fringe benefits at nuclear power plants.

SUPPLEMENTAL BENEFITS

Per hour: 07/01/2021

Journeyworker \$ 27.50

OVERTIME PAY

See (B, E, E2, Q, *V) on OVERTIME PAGE

*Note: For Sundays and Holidays worked benefits are at the same premium as wages.

HOLIDAY

Paid: See (1) on HOLIDAY PAGE

Overtime: See (5, 6, 16, 25) on HOLIDAY PAGE

REGISTERED APPRENTICES

LABORER ONLY

Hourly terms at the following wage:

Level A	Level B	Level C	Level D
0-1000	1001-2000	2001-3000	3001-4000
\$ 21.04	\$ 24.86	\$ 28.69	\$ 32.51

Supplemental Benefits per hour:

Apprentices
All terms \$ 21.15

8-235/B

Laborer - Heavy&Highway

08/01/2021

JOB DESCRIPTION Laborer - Heavy&Highway

DISTRICT 8

ENTIRE COUNTIES

Putnam, Westchester

WAGES

PUTNAM: APPLIES TO ALL HEAVY & HIGHWAY WORK EXCLUDING HIGHWAYS, STREETS, AND BRIDGES

GROUP I: Blaster, Quarry Master, Curbs/Asphalt Screedman, Pipe Jacking and Boring Operations Operator, Qualified Dead Condition Pipe Fuser (B Mechanic)

GROUP II: Burner, Drillers(jumbo, joy, wagon, air track, hydraulic), Drill Operator, Self Contained Rotary Drill, Curbs, Raker, Bar Person, Concrete Finisher.

GROUP III: Pavement Breakers, Jeep Operator, Jack Hammer, Pneumatic Tools (all), Gas Driller, Guniting, Railroad Spike Puller, Pipelayer, Chain Saw, Deck winches on scows, Power Buggy Operator, Power Wheelbarrow Operator, Bar Person Helper, Compressed Air lance, Water Jet Lance.

GROUP IV: Concrete Laborers, Asph. Worker, Rock Scaler, Vibrator Oper., Bit Grinder, Air Tamper, Pumps, Epoxy (adhesives, fillers and troweled on), Barco Rammer, Concrete Grinder, Crack Router Operator, Guide Rail-digging holes and placing concrete and demolition when not to be replaced, distribution of materials and tightening of bolts.

GROUP V: Drillers Helpers, Common Laborer, Mason Tenders, Signal Person, Pit Person, Truck Spotter, Powder Person, Landscape/Nursery Person, Dump Person, Temp. Heat.

GROUP VIA: Asbestos/Toxic Waste Laborer-All removal (Roads, Tunnels, Landfills, etc.) Confined space laborer, Bio-remediation, Phyto-remediation, Lead or Hazardous material, Abatement Laborer.

Wages:(per hour) 07/01/2021

GROUP I \$45.65*
GROUP II 44.30*
GROUP III 43.90*
GROUP IV 43.55*

GROUP V	43.20*
GROUP VIA	45.20*
Operator Qualified	
Gas Mechanic(A Mech)	55.65*
Flagperson	36.85*

*NOTE: To calculate overtime premiums, deduct \$0.10 from above wages

SHIFT WORK: A shift premium will be paid on Public Work contracts for off-shift or irregular shift work when mandated by the NYS D.O.T. or other Governmental Agency contracts. Employees shall receive an additional 15% per hour above current rate for all regular and irregular shift work. Premium pay shall be calculated using the 15% per hour differential as base rate.

SUPPLEMENTAL BENEFITS

Per hour:

Journeyworker:

First 40 Hours

Per Hour \$26.10

Over 40 Hours

Per Hour 19.85

OVERTIME PAY

See (B, E, P, R, S) on OVERTIME PAGE

HOLIDAY

Paid: See (5, 6, 8, 15, 25, 26) on HOLIDAY PAGE

Overtime: See (5, 6, 8, 15, 25, 26) on HOLIDAY PAGE

NOTE: For Holiday Overtime: 5, 6 - Code 'S' applies

For Holiday Overtime: 8, 15, 25, 26 - Code 'R' applies

REGISTERED APPRENTICES

	1st term	2nd term	3rd term	4th term
	1-1000hrs	1001-2000hrs	2001-3000hrs	3001-4000hrs
07/01/2021	\$ 24.56	\$ 28.98	\$ 33.40	\$ 37.72

Supplemental Benefits per hour:

1st term	\$ 4.70 - After 40 hours: \$ 4.45
2nd term	\$ 4.80 - After 40 hours: \$ 4.45
3rd term	\$ 5.30 - After 40 hours: \$ 4.85
4th term	\$ 5.85 - After 40 hours: \$ 5.35

8-60H/H

Laborer - Tunnel

08/01/2021

JOB DESCRIPTION Laborer - Tunnel

DISTRICT 11

ENTIRE COUNTIES

Columbia, Dutchess, Greene, Orange, Otsego, Putnam, Rockland, Sullivan, Ulster, Westchester

PARTIAL COUNTIES

Chenango: Townships of Columbus, Sherburne and New Berlin.

Delaware: Townships of Andes, Bovina, Middletown, Roxbury, Franklin, Hamden, Stamford, Delhi, Kortright, Harpersfield, Merideth and Davenport.

WAGES

Class 1: All support laborers/sandhogs working above the shaft or tunnel.

Class 2: All laborers/sandhogs working in the shaft or tunnel.

Class 4: Safety Miners

Class 5: Site work related to Shaft/Tunnel

WAGES: (per hour)

	07/01/2021	07/01/2022
Class 1	\$ 51.95	\$ 53.45
Class 2	54.10	55.60
Class 4	60.50	62.00
Class 5	43.50	44.80

Toxic and hazardous waste, lead abatement and asbestos abatement work will be paid an additional \$ 3.00 an hour.

SHIFT DIFFERENTIAL...On all Government mandated irregular shift work:

- Employee shall be paid at time and one half the regular rate Monday through Friday.
- Saturday shall be paid at 1.65 times the regular rate.
- Sunday shall be paid at 2.15 times the regular rate.

SUPPLEMENTAL BENEFITS

Per hour:

Benefit 1	\$ 33.25	\$ 34.45
Benefit 2	49.81	51.60
Benefit 3	66.35	68.75

Benefit 1 applies to straight time hours, paid holidays not worked.

Benefit 2 applies to over 8 hours in a day (M-F), irregular shift work hours worked, and Saturday hours worked.

Benefit 3 applies to Sunday and Holiday hours worked.

OVERTIME PAY

See (B, E, Q, X) on OVERTIME PAGE

HOLIDAY

Paid: See (5, 6, 15, 25) on HOLIDAY PAGE

Overtime: See (5, 6, 15, 16, 25) on HOLIDAY PAGE

When a recognized Holidays falls on Saturday or Sunday, holidays falling on Saturday shall be recognized or observed on Friday and holidays falling on Sunday shall be recognized or observed on Monday. Employees ordered to work on the Saturday or Sunday of the holiday or on the recognized or the observed Friday or Monday for those holidays falling on Saturday or Sunday shall receive double time the established rate and benefits for the holiday.

REGISTERED APPRENTICES

FOR APPRENTICE RATES, refer to the appropriate Laborer Heavy & Highway wage rate contained in the wage schedule for the County and location where the work is to be performed.

11-17/60/235/754Tun

Lineman Electrician

08/01/2021

JOB DESCRIPTION Lineman Electrician

DISTRICT 6

ENTIRE COUNTIES

Westchester

WAGES

Below rates apply to electrical overhead and underground distribution and maintenance work and overhead and underground transmission line work, electrical substations, switching structures, continuous pipe-type underground fluid or gas filled transmission conduit and cable installations, maintenance jobs or projects, railroad catenary installations and maintenance, third rail installations, the bonding of rails and the installation of fiber optic cable. (Ref #14.04.01)

Includes Teledata Work performed within ten (10) feet of high voltage (600 volts or over) transmission lines.

Per hour:	07/01/2021	05/02/2022	05/01/2023	05/06/2024
Lineman, Tech, Welder	\$ 57.71	\$ 59.01	\$ 60.41	\$ 61.91
Crane, Crawler Backhoe	57.71	59.01	60.41	61.91
Cable Splicer-Pipe Type	63.48	64.91	66.45	68.10
Digging Mach Operator	51.94	53.11	54.37	55.72
Cert. Welder-Pipe Type	60.60	61.96	63.43	65.01
Tractor Trailer Driver	49.05	50.16	51.35	52.62
Groundman, Truck Driver	46.17	47.21	48.33	49.53
Equipment Mechanic	46.17	47.21	48.33	49.53
Flagman	34.63	35.41	36.25	37.15

Additional \$1.00 per hour for entire crew when a helicopter is used.

NOTE: THE FOLLOWING RATES WILL APPLY ON ALL CONTRACTING AGENCY MANDATED MULTIPLE SHIFTS OF AT LEAST FIVE (5) DAYS DURATION WORKED BETWEEN THE HOURS LISTED BELOW:

1ST SHIFT	8:00 AM TO 4:30 PM REGULAR RATE
2ND SHIFT	4:30 PM TO 1:00 AM REGULAR RATE PLUS 17.3%
3RD SHIFT	12:30 AM TO 9:00 AM REGULAR RATE PLUS 31.4%

Four (4), ten (10) hour days may be worked at straight time during a week, Monday thru Thursday. Friday may be used as a make-up day. Tuesday thru Friday may be worked with no make-up day.

NOTE - In order to use the '4 Day/10 Hour Work schedule', as your normal schedule, you must submit an 'Employer Registration for Use of 4 Day/10 Hour Work Schedule,' form PW30.1; and there must be a dispensation of hours in place on the project. If the PW30.1 is not submitted you may be liable for overtime payments for work over 8 hours per day.

SUPPLEMENTAL BENEFITS

Per hour worked (but also required on non-worked holidays):

	\$25.40 *plus 7% of hourly Wage	\$ 25.90 *plus 7% of hourly wage	\$ 26.40 *plus 7% of hourly wage	\$ 26.90 *plus 7% of hourly wage
Journeyman Lineman or Equipment Operators with Crane License	\$ 26.40 *plus 7% of hourly wage	\$ 27.90 *plus 7% of hourly wage	\$ 29.40 *plus 7% of hourly wage	\$ 30.90 *plus 7% of hourly wage

*The 7% is based on the hourly wage paid, straight time or premium time.

OVERTIME PAY

See (B, E, Q,) on OVERTIME PAGE. *Note* Double time for emergency work designated by the Dept of Jurisdiction.

NOTE: WAGE CAP - Double the straight time hourly base wage shall be the maximum hourly wage compensation for any hour worked.
Contractor is still responsible to pay the hourly benefit amount for each hour worked.

HOLIDAY

Paid See (5, 6, 8, 13, 25) on HOLIDAY PAGE plus Governor of NYS Election Day.
Overtime See (5, 6, 8, 13, 25) on HOLIDAY PAGE plus Governor of NYS Election Day.

NOTE: All paid holidays falling on Saturday shall be observed on the preceding Friday. All paid holidays falling on Sunday shall be observed on the following Monday. Supplements for holidays paid at straight time.

REGISTERED APPRENTICES

WAGES per hour: 1000 hour terms at the following percentage of the applicable Journeyman Lineman wage.

1st	2nd	3rd	4th	5th	6th	7th
60%	65%	70%	75%	80%	85%	90%

SUPPLEMENTAL BENEFITS per hour:

07/01/2021	05/02/2022	05/01/2023	05/06/2024
\$25.40 *plus 7% of hourly Wage	\$ 25.90 *plus 7% of hourly wage	\$ 26.40 *plus 7% of hourly wage	\$ 26.90 *plus 7% of hourly wage

*The 7% is based on the hourly wage paid, straight time or premium time.

6-1249aWest

Lineman Electrician - Teledata

08/01/2021

JOB DESCRIPTION Lineman Electrician - Teledata

DISTRICT 6

ENTIRE COUNTIES

Albany, Allegany, Broome, Cattaraugus, Cayuga, Chautauqua, Chemung, Chenango, Clinton, Columbia, Cortland, Delaware, Dutchess, Erie, Essex, Franklin, Fulton, Genesee, Greene, Hamilton, Herkimer, Jefferson, Lewis, Livingston, Madison, Monroe, Montgomery, Niagara, Oneida, Onondaga, Ontario, Orange, Orleans, Oswego, Otsego, Putnam, Rensselaer, Rockland, Saratoga, Schenectady, Schoharie, Schuyler, Seneca, St. Lawrence, Steuben, Sullivan, Tioga, Tompkins, Ulster, Warren, Washington, Wayne, Westchester, Wyoming, Yates

WAGES

Per hour:

For outside work, stopping at first point of attachment (demarcation).

07/01/2021

Cable Splicer	\$ 34.78
Installer, Repairman	\$ 33.01
Teledata Lineman	\$ 33.01
Tech., Equip. Operator	\$ 33.01
Groundman	\$ 17.50

NOTE: EXCLUDES Teledata work within ten (10) feet of High Voltage (600 volts and over) transmission lines. For this work please see LINEMAN.

NOTE: THE FOLLOWING RATES WILL APPLY ON ALL CONTRACTING AGENCY MANDATED MULTIPLE SHIFTS OF AT LEAST FIVE (5) DAYS DURATION WORKED:

1ST SHIFT

REGULAR RATE

H-37
Page 36

2ND SHIFT REGULAR RATE PLUS 10%
3RD SHIFT REGULAR RATE PLUS 15%

SUPPLEMENTAL BENEFITS

Per hour:

Journeyman

\$ 5.14
*plus 3% of
wage paid

*The 3% is based on the hourly wage paid, straight time rate or premium rate.

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

NOTE: WAGE CAP - Double the straight time hourly base wage shall be the maximum hourly wage compensation for any hour worked.
Contractor is still responsible to pay the hourly benefit amount for each hour worked.

HOLIDAY

Paid: See (1) on HOLIDAY PAGE
Overtime: See (5, 6, 16) on HOLIDAY PAGE

6-1249LT - Teledata

Lineman Electrician - Traffic Signal, Lighting

08/01/2021

JOB DESCRIPTION Lineman Electrician - Traffic Signal, Lighting

DISTRICT 6

ENTIRE COUNTIES

Westchester

WAGES

Lineman/Technician shall perform all overhead aerial work. A Lineman/Technician on the ground will install all electrical panels, connect all grounds, install and connect all electrical conductors which includes, but is not limited to road loop wires; conduit and plastic or other type pipes that carry conductors, flex cables and connectors, and to oversee the encasement or burial of such conduits or pipes.

A Groundman/Groundman Truck Driver shall: Build and set concrete forms, handle steel mesh, set footer cages, transport concrete in a wheelbarrow, hand or machine concrete vibrator, finish concrete footers, mix mortar, grout pole bases, cover and maintain footers while curing in cold weather, operate jack hammer, operate hand pavement breaker, tamper, concrete and other motorized saws, as a drill helper, operate and maintain generators, water pumps, chainsaws, sand blasting, operate mulching and seeding machine, air tools, electric tools, gas tools, load and unload materials, hand shovel and/or broom, prepare and pour mastic and other fillers, assist digger operator equipment operator in ground excavation and restoration, landscape work and painting. Only when assisting a lineman technician, a groundman/truck driver may assist in installing conduit, pipe, cables and equipment.

A flagger's duties shall consist of traffic control only.
(Ref #14.01.03)

Per hour:	07/01/2021	05/02/2022	05/01/2023	05/06/2024
Lineman, Technician	\$ 52.56	\$ 53.60	\$ 54.73	\$ 55.95
Crane, Crawler Backhoe	52.56	53.60	54.73	55.95
Certified Welder	55.19	56.28	57.47	58.75
Digging Machine	47.30	48.24	49.26	50.36
Tractor Trailer Driver	44.68	45.56	46.52	47.56
Groundman, Truck Driver	42.05	42.88	43.78	44.76
Equipment Mechanic	42.05	42.88	43.78	44.76
Flagman	31.54	32.16	32.84	33.57

Above rates are applicable for installation, testing, operation, maintenance and repair on all Traffic Control (Signal) and Illumination (Lighting) projects, Traffic Monitoring Systems, and Road Weather Information Systems. Includes digging of holes for poles, anchors, footer foundations for electrical equipment; assembly of all electrical materials or raceway; placing of fish wire; pulling of cables, wires or fiber optic cable through such raceways; splicing of conductors; dismantling of such structures, lines or equipment.

NOTE: THE FOLLOWING RATES WILL APPLY ON ALL CONTRACTING AGENCY MANDATED MULTIPLE SHIFTS OF AT LEAST FIVE (5) DAYS DURATION WORKED BETWEEN THE HOURS LISTED BELOW:

1ST SHIFT 8:00 AM TO 4:30 PM REGULAR RATE
2ND SHIFT 4:30 PM TO 1:00 AM REGULAR RATE PLUS 17.3%
3RD SHIFT 12:30 AM TO 9:00 AM REGULAR RATE PLUS 31.4%

Four (4), ten (10) hour days may be worked at straight time during a week, Monday thru Thursday. Friday may be used as a make-up day. Tuesday thru Friday may be worked with no make-up day.

NOTE - In order to use the '4 Day/10 Hour Work schedule', as your normal schedule, you must submit an 'Employer Registration for Use of 4 Day/10 Hour Work Schedule,' form PW30.1; and there must be a dispensation of hours in place on the project. If the PW30.1 is not submitted you may be liable for overtime payments for work over 8 hours per day.

SUPPLEMENTAL BENEFITS

Per hour worked (but also required on non-worked holidays):

	\$25.40 *plus 7% of hourly Wage	\$ 25.90 *plus 7% of hourly wage	\$ 26.40 *plus 7% of hourly wage	\$ 26.90 *plus 7% of hourly wage
Journeyman Lineman or Equipment Operators with Crane License	\$ 26.40 *plus 7% of hourly wage	\$ 27.90 *plus 7% of hourly wage	\$ 29.40 *plus 7% of hourly wage	\$ 30.90 *plus 7% of hourly wage

*The 7% is based on the hourly wage paid, straight time or premium time.

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE. *Note* Double time for emergency work designated by the Dept. of Jurisdiction.

NOTE: WAGE CAP - Double the straight time hourly base wage shall be the maximum hourly wage compensation for any hour worked. Contractor is still responsible to pay the hourly benefit amount for each hour worked.

HOLIDAY

Paid: See (5, 6, 8, 13, 25) on HOLIDAY PAGE and Governor of NYS Election Day.

Overtime: See (5, 6, 8, 13, 25) on HOLIDAY PAGE and Governor of NYS Election Day.

NOTE: All paid holidays falling on Saturday shall be observed on the preceding Friday. All paid holidays falling on Sunday shall be observed on the following Monday. Supplements for holidays paid at straight time.

REGISTERED APPRENTICES

WAGES per hour: 1000 hour terms at the following percentage of the applicable Journeyman Lineman wage.

1st	2nd	3rd	4th	5th	6th	7th
60%	65%	70%	75%	80%	85%	90%

SUPPLEMENTAL BENEFITS per hour:

07/01/2021	05/02/2022	05/01/2023	05/06/2024
\$25.40 *plus 7% of hourly Wage	\$ 25.90 *plus 7% of hourly wage	\$ 26.40 *plus 7% of hourly wage	\$ 26.90 *plus 7% of hourly wage

*The 7% is based on the hourly wage paid, straight time or premium time.

6-1249aWestLT

Mason - Building

08/01/2021

JOB DESCRIPTION Mason - Building

DISTRICT 9

ENTIRE COUNTIES

Nassau, Rockland, Suffolk, Westchester

WAGES

Per hour:	07/01/2021	12/06/2021 Additional	06/06/2022 Additional
Tile Setters	\$ 61.07	\$ 0.48	\$ 0.72

SUPPLEMENTAL BENEFITS

Per Hour:	\$ 24.91* + \$10.01
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* This portion of benefits subject to same premium rate as shown for overtime wages.

OVERTIME PAY

See (B, E, Q, V) on OVERTIME PAGE

Work beyond 10 hours on Saturday shall be paid at double the hourly wage rate.

HOLIDAY

Paid: See (1) on HOLIDAY PAGE

Overtime: See (5, 6, 11, 15, 16, 25) on HOLIDAY PAGE

REGISTERED APPRENTICES

Wage per hour:

Tile Setters:
(750 hour) term at the following wage rate:

Term:	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
	1-750	751-1500	1501-2250	2251-3000	3001-3750	3751-4500	4501-5250	5251-6000	6001-6750	6501-7000
07/01/2021	\$20.84	\$25.66	\$32.68	\$37.50	\$40.99	\$44.30	\$47.82	\$52.63	\$55.35	\$59.34

Supplemental Benefits per hour:

1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
\$12.55* +\$0.66	\$12.55* +\$0.71	\$15.16* +\$0.81	\$15.16* +\$0.85	\$16.16* +\$1.23	\$17.66* +\$1.28	\$18.66* +\$1.63	\$18.66* +\$1.68	\$16.66* +\$5.83	\$21.91* +\$6.32

* This portion of benefits subject to same premium rate as shown for overtime wages.

9-7/52A

Mason - Building	08/01/2021
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JOB DESCRIPTION Mason - Building

DISTRICT 11

ENTIRE COUNTIES

Putnam, Rockland, Westchester

PARTIAL COUNTIES

Orange: Only the Township of Tuxedo.

WAGES

Per hour:

	07/01/2021	06/01/2022 Additional	06/01/2023 Additional
Bricklayer	\$ 43.35	\$ 2.39	\$ 2.05
Cement Mason	43.35	2.39	2.05
Plasterer/Stone Mason	43.35	2.39	2.05
Pointer/Caulker	43.35	2.39	2.05

Additional \$1.00 per hour for power saw work

Additional \$0.50 per hour for swing scaffold or staging work

SHIFT WORK: When shift work or an irregular work day is mandated or required by state, federal, county, local or other governmental agency contracts, the following premiums apply:

Irregular work day requires 15% premium

Second shift an additional 15% of wage plus benefits to be paid

Third shift an additional 25% of wage plus benefits to be paid

SUPPLEMENTAL BENEFITS

Per hour:

Journeyman \$ 36.05.

OVERTIME PAY

OVERTIME:

Cement Mason See (B, E, Q, W) on OVERTIME PAGE.

All Others See (B, E, Q) on OVERTIME PAGE.

HOLIDAY

Paid: See (1) on HOLIDAY PAGE

Overtime: See (5, 6, 16, 25) on HOLIDAY PAGE

Whenever any of the above holidays fall on Sunday, they will be observed on Monday. Whenever any of the above holidays fall on Saturday, they will be observed on Friday.

REGISTERED APPRENTICES

Wages per hour:

750 hour terms at the following percentage of Journeyman's wage

1st	2nd	3rd	4th	5th	6th	7th	8th
-----	-----	-----	-----	-----	-----	-----	-----

50% 55% 60% 65% 70% 75% 80% 85%

Supplemental Benefits per hour

750 hour terms at the following percentage of journeyman supplements

1st	2nd	3rd	4th	5th	6th	7th	8th
50%	55%	60%	65%	70%	75%	80%	85%

Apprentices indentured before June 1st, 2011 receive full journeyman benefits

11-5wp-b

Mason - Building

08/01/2021

JOB DESCRIPTION Mason - Building

DISTRICT 9

ENTIRE COUNTIES

Bronx, Kings, Nassau, New York, Queens, Richmond, Suffolk, Westchester

WAGES

Building

07/01/2021 01/01/2022

Wages per hour:

Mosaic & Terrazzo Mechanic	\$ 58.46	Additional \$ 0.85
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Mosaic & Terrazzo Finisher	\$ 56.86
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SUPPLEMENTAL BENEFITS

Per hour:

Mosaic & Terrazzo Mechanic	\$ 26.11* + \$11.73
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Mosaic & Terrazzo Finisher	\$ 26.11* + \$11.71
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*This portion of benefits subject to same premium rate as shown for overtime wages.

OVERTIME PAY

See (A, E, Q) on OVERTIME PAGE

Deduct \$6.80 from hourly wages before calculating overtime.

HOLIDAY

Paid: See (1) on HOLIDAY PAGE

Overtime: See (5, 6, 8, 11, 15, 16, 25) on HOLIDAY PAGE

Easter Sunday is an observed holiday. Holidays falling on a Saturday will be observed on that Saturday. Holidays falling on a Sunday will be celebrated on the Monday.

REGISTERED APPRENTICES

Wages per hour:

(750 Hour) terms at the following wage rate.

	1st	2nd	3rd	4th	5th	6th	7th	8th
07/01/2021	\$ 25.82	\$ 28.40	\$ 31.00	\$ 33.58	\$ 36.16	\$ 38.74	\$ 43.91	\$ 49.08

Supplemental benefits per hour:

07/01/2021	\$13.06* +\$9.27	\$14.37* +\$10.19	\$15.67* +\$11.12	\$16.98* +\$12.04	\$18.28* +\$12.97	\$19.59* +\$13.90	\$22.20* +\$15.75	\$24.81* +\$17.60
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Apprentices hired after 07/01/2017:

Wages Per hour:

1st	2nd	3rd	4th	5th	6th
0- 1500	1501- 3000	3001- 3750	3751- 4500	4501- 5250	5251- 6000

07/01/2021	\$ 22.63	\$ 29.10	\$ 31.00	\$ 36.16	\$ 41.32	\$ 46.48
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Supplemental Benefits per hour:

	1st	2nd	3rd	4th	5th	6th
07/01/2021	\$4.59*	\$5.90*	\$15.67*	\$18.28*	\$20.89*	\$23.50*
	+\$6.49	+\$8.34	+\$11.12	+\$12.97	+\$14.83	+\$16.67

*This portion of benefits subject to same premium rate as shown for overtime wages.

9-7/3

Mason - Building

08/01/2021

JOB DESCRIPTION Mason - Building

DISTRICT 9

ENTIRE COUNTIES

Bronx, Kings, Nassau, New York, Queens, Richmond, Suffolk, Westchester

WAGES

Per hour:	07/01/2021	01/01/2022
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Building-Marble Restoration:	Additional
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Marble, Stone & Terrazzo Polisher, etc	\$ 46.16	\$ 1.10
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SUPPLEMENTAL BENEFITS

Per Hour:

Journeyworker:

Building-Marble Restoration:

Marble, Stone & Polisher	\$ 29.11
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OVERTIME PAY

See (B, *E, Q, V) on OVERTIME PAGE

*ON SATURDAYS, 8TH HOUR AND SUCCESSIVE HOURS PAID AT DOUBLE HOURLY RATE.

HOLIDAY

Paid: See (1) on HOLIDAY PAGE

Overtime: See (5, 6, 8, 11, 15, 25) on HOLIDAY PAGE

1ST TERM APPRENTICE GETS PAID FOR ALL OBSERVED HOLIDAYS.

REGISTERED APPRENTICES

WAGES per hour:

900 hour term at the following wage:

	1st 1- 900	2nd 901- 1800	3rd 1801- 2700	4th 2701
07/01/2021	\$32.28	\$36.91	\$41.51	\$46.16

Supplemental Benefits Per Hour:

07/01/2021	\$26.47	\$27.34	\$28.29	\$29.11
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9-7/24-MP

Mason - Building

08/01/2021

JOB DESCRIPTION Mason - Building

DISTRICT 9

ENTIRE COUNTIES

Bronx, Dutchess, Kings, Nassau, New York, Orange, Putnam, Queens, Richmond, Rockland, Suffolk, Sullivan, Ulster, Westchester

WAGES

Wages:	07/01/2021	01/03/2022
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Marble Cutters & Setters	\$ 61.73	Additional \$ 0.95
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SUPPLEMENTAL BENEFITS

Per Hour:

Journeyworker \$ 37.76

OVERTIME PAY

See (B, E, Q, V) on OVERTIME PAGE

HOLIDAY

Paid: See (1) on HOLIDAY PAGE

Overtime: See (5, 6, 8, 11, 15, 16, 25) on HOLIDAY PAGE

REGISTERED APPRENTICES

Wage Per Hour:

750 hour terms at the following wage.

1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
1-750	751-1500	1501-2250	2251-3000	3001-3750	3751-4500	4501-5250	5251-6000	6001-6751	6751-7500
\$ 24.70	\$ 27.77	\$ 30.87	\$ 33.94	\$ 37.03	\$ 40.11	\$ 43.20	\$ 46.29	\$ 52.46	\$ 58.64

Supplemental Benefits per hour:

1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
\$ 20.01	\$ 21.43	\$ 22.83	\$ 24.25	\$ 25.65	\$ 27.07	\$ 28.47	\$ 29.88	\$ 32.70	\$ 35.51

9-7/4

Mason - Building

08/01/2021

JOB DESCRIPTION Mason - Building

DISTRICT 9

ENTIRE COUNTIES

Nassau, Rockland, Suffolk, Westchester

WAGES

Per hour:	07/01/2021	12/06/2021	06/06/2022
Tile Finisher	\$ 46.89	Additional \$ 0.39	Additional \$ 0.58

SUPPLEMENTAL BENEFITS

Per Hour:

\$ 21.91*
+ \$9.84

*This portion of benefits subject to same premium rate as shown for overtime wages

OVERTIME PAY

See (B, E, Q, *V) on OVERTIME PAGE

Work beyond 10 hours on a Saturday shall be paid at double the hourly wage rate.

HOLIDAY

Paid: See (1) on HOLIDAY PAGE

Overtime: See (5, 6, 11, 15, 16, 25) on HOLIDAY PAGE

9-7/88A-tf

Mason - Building

08/01/2021

JOB DESCRIPTION Mason - Building

DISTRICT 9

ENTIRE COUNTIES

Bronx, Kings, Nassau, New York, Queens, Richmond, Suffolk, Westchester

WAGES

Per hour:	07/01/2021	01/01/2022
Marble, Stone, etc. Maintenance Finishers:	\$ 26.73	Additional \$ 0.68

Note 1: An additional \$2.00 per hour
for time spent grinding floor using
"60 grit" and below.

Note 2: Flaming equipment operator
shall be paid an additional \$25.00 per day.

SUPPLEMENTAL BENEFITS

Per Hour:

Marble, Stone, etc
Maintenance Finishers: \$ 14.00

OVERTIME PAY

See (B, *E, Q, V) on OVERTIME PAGE

*Double hourly rate after 8 hours on Saturday

HOLIDAY

Paid: See (5, 6, 8, 11, 15, 25) on HOLIDAY PAGE

Overtime: See (5, 6, 8, 11, 15, 25) on HOLIDAY PAGE

1st term apprentice gets paid for all observed holidays.

REGISTERED APPRENTICES

WAGES per hour:

07/01/2021

0-750	\$21.37
751-1500	\$22.09
1501-2250	\$22.81
2251-3000	\$23.52
3001-3750	\$24.61
3751-4500	\$26.04
4501+	\$26.73

Supplemental Benefits:

Per hour:

0-750	\$ 11.24
751-1500	\$ 11.60
1501-2250	\$ 11.97
2251-3000	\$ 12.35
3001-3750	\$ 12.84
3751-4500	\$ 13.63
4501+	\$ 14.00

9-7/24M-MF

Mason - Building / Heavy&Highway

08/01/2021

JOB DESCRIPTION Mason - Building / Heavy&Highway

DISTRICT 9

ENTIRE COUNTIES

Bronx, Kings, Nassau, New York, Queens, Richmond, Suffolk, Westchester

WAGES

Per hour: 07/01/2021 01/03/2022

Marble-Finisher	\$ 48.87	Additional \$ 0.61
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SUPPLEMENTAL BENEFITS

Journeyworker:
per hour

Marble- Finisher \$ 35.25

OVERTIME PAY

See (B, E, Q, V) on OVERTIME PAGE

HOLIDAY

Overtime: See (5, 6, 8, 11, 15, 16, 25) on HOLIDAY PAGE

* Work beyond 8 hours on a Saturday shall be paid at double the rate.

** When an observed holiday falls on a Sunday, it will be observed the next day.

9-7/20-MF

Mason - Heavy&Highway

08/01/2021

JOB DESCRIPTION Mason - Heavy&Highway

DISTRICT 11

ENTIRE COUNTIES

Putnam, Rockland, Westchester

PARTIAL COUNTIES

Orange: Only the Township of Tuxedo.

WAGES

Per hour:

	07/01/2021	06/01/2022 Additional	06/01/2023 Additional
Bricklayer	\$ 43.85	\$ 2.39	\$ 2.05
Cement Mason	43.85	2.39	2.05
Marble/Stone Mason	43.85	2.39	2.05
Plasterer	43.85	2.39	2.05
Pointer/Caulker	43.85	2.39	2.05

Additional \$1.00 per hour for power saw work

Additional \$0.50 per hour for swing scaffold or staging work

SHIFT WORK: When shift work or an irregular work day is mandated or required by state, federal, county, local or other governmental contracts, the following rates apply:

Irregular work day requires 15% premium

Second shift an additional 15% of wage plus benefits to be paid

Third shift an additional 25% of wage plus benefits to be paid

SUPPLEMENTAL BENEFITS

Per hour:

Journeyman \$ 36.05

OVERTIME PAY

Cement Mason See (B, E, Q, W, X)

All Others See (B, E, Q, X)

HOLIDAY

Paid: See (5, 6, 16, 25) on HOLIDAY PAGE

Overtime: See (5, 6, 16, 25) on HOLIDAY PAGE

Whenever any of the above holidays fall on Sunday, they will be observed on Monday. Whenever any of the above holidays fall on Saturday, they will be observed on Friday.

REGISTERED APPRENTICES

Wages per hour:

750 hour terms at the following percentage of Journeyman's wage

1st	2nd	3rd	4th	5th	6th	7th	8th
50%	55%	60%	65%	70%	75%	80%	85%

Supplemental Benefits per hour

750 hour terms at the following percentage of journeyman supplements

1st	2nd	3rd	4th	5th	6th	7th	8th
50%	55%	60%	65%	70%	75%	80%	85%

Apprentices indentured before June 1st, 2011 receive full journeyman benefits

11-5WP-H/H

Operating Engineer - Building

08/01/2021

JOB DESCRIPTION Operating Engineer - Building

DISTRICT 9

ENTIRE COUNTIES

Bronx, Kings, New York, Putnam, Queens, Richmond, Westchester

PARTIAL COUNTIES

Dutchess: that part of Dutchess County lying south of the North City Line of the City of Poughkeepsie.

WAGES

NOTE:Construction surveying

Party Chief--One who directs a survey party

Instrument Man--One who runs the instrument and assists Party Chief.

Rodman--One who holds the rod and assists the Survey Crew

Wages:(Per Hour)

07/01/2021

Building Construction:

Party Chief	\$ 76.09
Instrument Man	\$ 60.41
Rodman	\$ 41.11

Steel Erection:

Party Chief	\$ 79.02
Instrument Man	\$ 62.89
Rodman	\$ 44.03

**Heavy Construction-NYC counties only:
(Foundation, Excavation.)**

Party Chief	\$ 84.60
Instrument man	\$ 63.79
Rodman	\$ 54.52

SUPPLEMENTAL BENEFITS

Per Hour:	07/01/2021
Building Construction	\$ 24.40* +\$ 7.15
Steel Erection	\$ 25.00* +\$ 7.15
Heavy Construction	\$ 25.25* +\$ 7.15

* This portion subject to same premium as wages

Non-Worked Holiday Supplemental Benefit:	\$ 16.45
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OVERTIME PAY

See (A, B, E, Q) on OVERTIME PAGE

Code "A" applies to Building Construction and has double the rate after 7 hours on Saturdays.

Code "B" applies to Heavy Construction and Steel Erection and had double the rate after 8 hours on Saturdays.

HOLIDAY

Paid:	See (5, 6, 9, 11, 15, 16, 25) on HOLIDAY PAGE
Overtime:	See (5, 6, 9, 11, 15, 16, 25) on HOLIDAY PAGE

9-15Db

Operating Engineer - Building

08/01/2021

JOB DESCRIPTION Operating Engineer - Building

DISTRICT 8

ENTIRE COUNTIES

Putnam, Westchester

PARTIAL COUNTIES

Dutchess: All the counties of Westchester and Putnam and the southern part of Dutchess County defined by the northern boundary line of the City of Poughkeepsie, then due east to Route 115, then north along Route 115 to Bedell Road, then east along Bedell Road to Van Wagner Road, then north along Van Wagner Road to Bower Road, then east along Bower Road to Route 44 and along Route 44 east to Route 343, then along Route 343 east to the northern boundary of Town of Dover Plains and east along the northern boundary of Town of Dover Plains to the border line of the State of Connecticut and bordered on the west by the middle of the Hudson River.

WAGES

GROUP I:

Cranes (All Types up to 49 tons), Boom Trucks, Cherry Pickers (All Types), Clamshell Crane, Derrick (Stone and Steel), Dragline, Franki Pile Rig or similar, High Lift (Lull or similar) with crane attachment and winch used for hoisting or lifting, Hydraulic Cranes, Pile Drivers, Potain and similar.

Cranes (All types 50-99 tons), Drill Rig Casa Grande (CAT or similar), Franki Pile Rig or similar, Hydraulic Cranes (All types including Crawler Cranes- No specific boom length).

Cranes (All types 100 tons and over), All Tower Cranes, All Climbing Cranes irrespective of manufacturer and regardless of how the same is rigged, Franki Pile Rig or similar, Conventional Cranes (All types including Crawler Cranes-No specific boom length), Hydraulic Cranes.

GROUP I-A: Barber Green Loader-Euclid Loader, Bulldozer, Carrier-Trailer Horse, Concrete Cleaning Decontamination Machine Operator, Concrete-Portable Hoist, Conway or Similar Mucking Machines, Elevator & Cage, Excavators all types, Front End Loaders, Gradall, Shovel, Backhoe, etc. (Crawler or Truck), Heavy Equipment Robotics Operator/Mechanic, Hoist Engineer-Material, Hoist Portable Mobile Unit, Hoist (Single, Double or Triple Drum), Horizontal Directional Drill Locator, Horizontal Directional Drill Operator and Jersey Spreader, Letourneau or Tournapull (Scrapers over 20 yards Struck), Lift Slab Console, etc., Lull HiLift or Similar, Master Environmental Maintenance Mechanics, Mucking Machines Operator/Mechanic or Similar Type, Overhead Crane, Pavement Breaker (Air Ram), Paver (Concrete), Post Hole Digger, Power House Plant, Road Boring Machine, Road Mix Machine, Ross Carrier and Similar Machines, Rubber tire double end backhoes and similar machines, Scoopmobile Tractor-Shovel Over 1.5 yards, Shovel (Tunnels), Spreader (Asphalt) Telephie (Cableway), Tractor Type Demolition Equipment, Trenching Machines-Vermeer Concrete Saw Trencher and Similar, Ultra High Pressure Waterjet Cutting Tool System, Vacuum Blasting Machine operator/mechanic, Winch Truck A Frame.

GROUP I-B: Compressor (Steel Erection), Mechanic (Outside All Types), Negative Air Machine (Asbestos Removal), Push Button (Buzz Box) Elevator.

GROUP II: Compactor Self-Propelled, Concrete Pump, Crane Operator in Training (Over 100 Tons), Grader, Machines Pulling Sheep's Foot Roller, Roller (4 ton and over), Scrapers (20 yards Struck and Under), Vibratory Rollers, Welder.

GROUP III-A: Asphalt Plant, Concrete Mixing Plants, Forklift (All power sources), Joy Drill or similar, Tractor Drilling Machine, Loader (1 1/2 yards and under), Portable Asphalt Plant, Portable Batch Plant, Portable Crusher, Skid Steer (Bobcat or similar), Stone Crusher, Well Drilling Machine, Well Point System.

GROUP III-B: Compressor Over 125 cu. Feet, Conveyor Belt Machine regardless of size, Compressor Plant, Ladder Hoist, Stud Machine.

GROUP IV-A: Batch Plant, Concrete Breaker, Concrete Spreader, Curb Cutter Machine, Finishing Machine-Concrete, Fine Grading Machine, Hepa Vac Clean Air Machine, Material Hopper (sand, stone, cement), Mulching Grass Spreader, Pump Gypsum etc, Pump-Plaster-Grout-Fireproofing. Roller (Under 4 Ton), Spreading and Fine Grading Machine, Steel Cutting Machine, Siphon Pump, Tar Joint Machine, Television Cameras for Water, Sewer, Gas etc. Turbo Jet Burner or Similar Equipment, Vibrator (1 to 5).

GROUP IV-B: Compressor (all types), Heater (All Types), Fire Watchman, Lighting Unit (Portable & Generator) Pump, Pump Station (Water, Sewer, Portable, Temporary), Welding Machine (Steel Erection & Excavation).

GROUP V: Mechanics Helper, Motorized Roller (walk behind), Stock Attendant, Welder's Helper, Maintenance Engineer Crane (75 ton and over).

Group VI-A: Welder Certified

GROUP VI-B: Utility Man, Warehouse Man.

WAGES: (per hour)

	07/01/2021	3/7/2022	3/6/2023
GROUP I			
Cranes- up to 49 tons	\$ 63.86	\$ 65.03	\$ 66.23
Cranes- 50 tons to 99 tons	66.07	67.28	68.53
Cranes- 100 tons and over	75.37	76.77	78.21
GROUP I-A	55.96	56.97	58.01
GROUP I-B	51.60	52.52	53.48
GROUP II	54.00	54.98	55.70
GROUP III-A	52.04	52.97	53.94
GROUP III-B	49.56	50.44	51.35
GROUP IV-A	51.52	52.44	53.40
GROUP IV-B	43.62	44.38	45.17
GROUP V	47.00	47.83	48.69
Group VI-A	54.94	55.93	56.96
GROUP VI-B			
Utility Man	44.61	45.39	46.21
Warehouse Man	46.74	47.57	48.42

An additional 20% to wage when required to wear protective equipment on hazardous/toxic waste projects.

Engineers operating cranes with booms 100 feet but less than 149 feet in length will be paid an additional \$2.00 per hour.

Engineers operating cranes with booms 149 feet or over in length will be paid an additional \$3.00 per hour.

Loader operators over 5 cubic yard capacity additional .50 per hour.

Shovel operators over 4 cubic yard capacity additional \$1.00 per hour.

SUPPLEMENTAL BENEFITS

Per hour:

	07/01/2021	03/07/2022	03/06/2023
Journeyworker	\$ 29.17	\$ 29.87	\$ 30.57

OVERTIME PAY

See (B, E, Q, *V) on OVERTIME PAGE

HOLIDAY

Paid: See (5, 6, 8, 15, 25, 26) on HOLIDAY PAGE
Overtime: See (5, 6, 8, 15, 25, 26) on HOLIDAY PAGE

8-137B

Operating Engineer - Heavy&Highway

08/01/2021

JOB DESCRIPTION Operating Engineer - Heavy&Highway

DISTRICT 8

ENTIRE COUNTIES

Putnam, Westchester

PARTIAL COUNTIES

Dutchess: All the counties of Westchester and Putnam and the southern part of Dutchess County defined by the northern boundary line of the City of Poughkeepsie, then due east to Route 115, then north along Route 115 to Bedell Road, then east along Bedell Road to Van Wagner Road, then north along Van Wagner Road to Bower Road, then east along Bower Road to Route 44 and along Route 44 east to Route 343, then along Route 343 east to the northern boundary of Town of Dover Plains and east along the northern boundary of Town of Dover Plains to the border line of the State of Connecticut and bordered on the west by the middle of the Hudson River.

WAGES

GROUP I: Boom Truck, Cherry Picker, Clamshell, Crane, (Crawler, Truck), Dragline, Drill Rig (Casa Grande, Cat, or Similar), Floating Crane (Crane on Barges) under 100 tons, Gin Pole, Hoist Engineer-Concrete (Crane-Derrick-Mine Hoist), Knuckle Boom Crane, Rough Terrain Crane.

GROUP I-A: Auger (Truck or Truck Mounted), Boat Captain, Bulldozer-All Sizes, Central Mix Plant Operator, Chipper (all types), Close Circuit T.V., Combination Loader/Backhoe, Compactor with Blade, Concrete Finishing Machine, Gradall, Grader (Motor Grader), Elevator & Cage (Materials or Passenger), Excavator (and all attachments), Front End Loaders (1 1/2 yards and over), High Lift Lull and similar, Hoist (Single, Double, Triple Drum), Hoist Portable Mobile Unit, Hoist Engineer (Material), Jack and Bore Machine, Log Skidders, Mill Machines, Mucking Machines, Overhead Crane, Paver (concrete), Post Pounder (of any type), Push Cats, Road Reclaimer, Robot Hammer (Brokk or similar), Robotic Equipment (Scope of Engineer Schedule), Ross Carrier and similar, Scrapers (20 yard struck and over), Side Boom, Slip Form Machine, Spreader (Asphalt), Trenching Machines (Telephies-Vermeer Concrete Saw), Tractor Type Demolition Equipment, Vacuum Truck. Vibratory Roller(Riding) or Roller used in mainline paving operations.

GROUP I-B: Asphalt Mobile Conveyor/Transfer Machine, Road Paver (Asphalt).

GROUP II-A: Ballast Regulators, Compactor Self Propelled, Fusion Machine, Rail Anchor Machines, Roller (4 ton and over), Scrapers (20 yard struck and under).

GROUP II-B: Mechanic (Outside) All Types, Shop Mechanic.

GROUP III: Air Tractor Drill, Asphalt Plant, Batch Plant, Boiler (High Pressure), Concrete Breaker (Track or Rubber Tire), Concrete Pump, Concrete Spreader, Excavator Drill, Farm Tractor, Forklift (all types), Gas Tapping (Live), Hydroseeder, Loader (1 1/2 yards and under), Locomotive (all sizes), Machine Pulling Sheeps Foot Roller, Portable Asphalt Plant, Portable Batch Plant, Portable Crusher (Apprentice), Powerhouse Plant, Roller (under 4 ton), Sheer Excavator, Skid Steer/Bobcat, Stone Crusher, Sweeper (with seat), Well Drilling Machine.

GROUP IV: Service Person (Grease Truck), Deckhand.

GROUP IV-B: Conveyor Belt Machine (Truck Mounted), Heater (all types), Lighting Unit (Portable), Maintenance Engineer (For Crane Only), Mechanics Helper, Pump (Fireproofing), Pumps-Pump Station/Water/Sewer/Gypsum/Plaster, etc., Pump Truck (Sewer Jet or Similar), Welders Helper, Welding Machine (Steel Erection), Well Point System.

GROUP V: All Tower Cranes-All Climbing Cranes and all cranes of 100-ton capacity or greater (3900 Manitowac or similar) irrespective of manufacturer and regardless of how the same is rigged, Hoist Engineer (Steel), Engineer-Pile Driver, Jersey Spreader, Pavement Breaker/Post Hole Digger.

WAGES: Per hour:	07/01/2021	03/07/2022	03/06/2023
Group I	\$ 64.63	\$ 65.97	\$ 67.27
Group I-A	57.02	58.16	59.26
Group I-B	60.06	61.28	62.46
Group II-A	54.61	55.70	56.74
Group II-B	56.31	57.44	58.52
Group III	53.66	54.72	55.74
Group IV	48.80	49.74	50.63
Group IV-B	41.94	42.71	43.43
Group V			
Engineer All Tower, Climbing and			
Cranes of 100 Tons	73.18	74.73	76.24
Hoist Engineer(Steel)	66.29	67.67	69.01

Engineer(Pile Driver)	70.67	72.16	73.61
Jersey Spreader,Pavement Breaker (Air Ram)Post Hole Digger	55.87	56.99	58.06

SHIFT DIFFERENTIAL:

A 15% premium on all hours paid, including overtime hours for 2nd, 3rd shifts on all government mandated off-shift work

Engineers operating cranes with booms 100 feet but less than 149 feet in length will be paid an additional \$2.00 per hour over the rate listed in the Wage Schedule. Engineers operating cranes with booms 149 feet or over in length will be paid an additional \$3.00 per hour over the rate listed in the Wage Schedule. Loader and Excavator Operators: over 5 cubic yards capacity \$0.50 per hour over the rate listed in the Wage Schedule. Shovel Operators: over 4 cubic yards capacity \$1.00 per hour over the rate listed in the Wage Schedule.

Four (4), ten (10) hour days may be worked at straight time during a week, Monday thru Thursday; Friday may be used as a make-up day.

NOTE - In order to use the 4 Day/10 Hour Work schedule Registration for Use of 4 Day/10 Hour Work Schedule,form PW30.1; and there must be a dispensation of hours in place on the project. If the PW30.1 is not submitted you may be liable for overtime payments for work over 8 hours per day.

SUPPLEMENTAL BENEFITS

Per hour:

Journeyworker:	07/01/2021	03/07/2022	03/06/2023
	\$ 31.60 up to 40 Hours	\$ 32.60 up to 40 hours	\$ 33.75 up to 40 hours
	After 40 hours \$ 22.40* PLUS \$ 1.20 on all hours worked	After 40 hours \$ 23.40* PLUS \$ 1.20 on all hours worked	After 40 hours \$ 24.50* PLUS \$ 1.25 on all hours worked

*This amount is subject to premium

OVERTIME PAY

See (B, E, E2, P, *R, **U) on OVERTIME PAGE

HOLIDAY

Paid:..... See (5, 6, 8, 15, 25, 26) on HOLIDAY PAGE

Overtime..... See (5, 6, 8, 15, 25, 26) on OVERTIME PAGE

* For Holiday codes 8,15,25,26 code R applies

** For Holiday Codes 5 & 6 code U applies

Note: If employees are required to work on Easter Sunday they shall be paid at the rate of triple time.

REGISTERED APPRENTICES

(1)year terms at the following rate.

	07/01/2021	03/07/2022	03/06/2023
1st term	\$ 28.51	\$ 29.08	\$ 29.63
2nd term	34.21	34.90	35.56
3rd term	39.91	40.71	41.48
4th term	45.61	46.53	47.41
Supplemental Benefits per hour:			
	23.60	24.55	25.70

8-137HH

Operating Engineer - Heavy&Highway

08/01/2021

JOB DESCRIPTION Operating Engineer - Heavy&Highway

DISTRICT 9

ENTIRE COUNTIES

Putnam, Westchester

PARTIAL COUNTIES

Dutchess: South of the North city line of Poughkeepsie

WAGES

Party Chief - One who directs a survey party

Instrument Man - One who runs the instrument and assists Party Chief

Rodman - One who holds the rod and in general, assists the Survey Crew

Catogories cover GPS & Underground Surveying

Per Hour: 07/01/2021

Party Chief \$ 81.72

Instrument Man 61.43
Rodman 52.40

SUPPLEMENTAL BENEFITS

Per Hour: 07/01/2021

All Catogories
Straight Time: \$ 25.25* plus \$7.15

Premium:
Time & 1/2 \$ 37.88* plus \$7.15

Double Time \$ 50.50* plus \$7.15

Non-Worked Holiday Supplemental Benefits:
\$ 16.45

OVERTIME PAY

See (B, *E, Q) on OVERTIME PAGE

* Doubletime paid on all hours in excess of 8 hours on Saturday

HOLIDAY

Paid: See (5, 6, 7, 11, 12) on HOLIDAY PAGE
Overtime: See (5, 6, 7, 11, 12) on HOLIDAY PAGE

9-15Dh

Operating Engineer - Heavy&Highway - Tunnel

08/01/2021

JOB DESCRIPTION Operating Engineer - Heavy&Highway - Tunnel

DISTRICT 8

ENTIRE COUNTIES

Putnam, Westchester

PARTIAL COUNTIES

Dutchess: All the counties of Westchester and Putnam and the southern part of Dutchess County defined by the northern boundary line of the City of Poughkeepsie, then due east to Route 115, then north along Route 115 to Bedell Road, then east along Bedell Road to Van Wagner Road, then north along Van Wagner Road to Bower Road, then east along Bower Road to Route 44 and along Route 44 east to Route 343, then along Route 343 east to the northern boundary of Town of Dover Plains and east along the northern boundary of Town of Dover Plains to the border line of the State of Connecticut and bordered on the west by the middle of the Hudson River.

WAGES

GROUP I: Boom Truck, Cherry Picker, Clamshell, Crane(Crawler,Truck), Dragline, Drill Rig Casa Grande(Cat or Similar), Floating Crane(Crane on Barge-Under 100 Tons), Hoist Engineer(Concrete/Crane-Derrick-Mine Hoist), Knuckle Boom Crane, Rough Terrain Crane.

GROUP I-A: Auger(Truck or Truck Mounted), Boat Captain, Bull Dozer-all sizes, Central Mix Plant Operator, Chipper-all types, Close Circuit T.V., Combination Loader/Backhoe, Compactor with Blade, Concrete Finishing Machine, Gradall, Grader(Motor Grader), Elevator & Cage(Materials or Passengers), Excavator(and all attachments), Front End Loaders(1 1/2 yards and over), High Lift Lull, Hoist(Single, Double, Triple Drum), Hoist Portable Mobile Unit, Hoist Engineer(Material), Jack and Bore Machine, Log Skidder, Milling Machine, Moveable Concrete Barrier Transfer & Transport Vehicle, Mucking Machines. Overhead Crane, Paver(Concrete), Post Pounder of any type, Push Cats, Road Reclaimer, Robot Hammer(Brokk or similar), Robotic Equipment(Scope of Engineer Schedule), Ross Carrier and similar machines, Scrapers(20 yards struck and over), Side Boom, Slip Form Machine, Spreader(Asphalt), Trenching Machines, Telephies-Vermeer Concrete Saw, Tractor type demolition equipment, Vacuum Truck, Vibratory Roller (Riding) used in mainline paving operations.

GROUP I-B: Asphalt Mobile Conveyor/Transfer Machine, Road Paver(Asphalt).

GROUP II-A: Ballast Regulators, Compactor(Self-propelled), Fusion Machine, Rail Anchor Machines, Roller(4 ton and over), Scrapers(20 yard struck and under).

GROUP II-B: Mechanic(outside)all types, Shop Mechanic.

GROUP III: Air Tractor Drill, Asphalt Plant, Batch Plant, Boiler(High Pressure), Concrete Breaker(Track or Rubber Tire), Concrete Pump, Concrete Spreader, Excavator Drill, Farm Tractor, Forklift(all types of power), Gas Tapping(Live), Hydroseeder, Loader(1 1/2 yards and under), Locomotive(all sizes), Machine Pulling Sheeps Foot Roller, Portable Asphalt Plant, Portable Batch Plant, Portable Crusher(Apprentice), Powerhouse Plant, Roller(under 4 ton), Sheer Excavator, Skidsteer/Bobcat, Stone Crusher, Sweeper(with seat), Well Drilling Machine.

GROUP IV-A: Service Person(Grease Truck), Deckhand.

GROUP IV-B: Conveyor Belt Machine(Truck Mounted), Heater(all types), Lighting Unit(Portable), Maintenance Engineer(for Crane only), Mechanics Helper, Pump(Fireproofing), Pumps-Pump Station/Water/Sewer/Gypsum/Plaster, etc., Pump Truck(Sewer Jet or similar), Welding Machine(Steel Erection), Welders Helper.

GROUP V-A: Engineer(all Tower Cranes, all Climbing Cranes & all Cranes of 100 ton capacity or greater),Hoist Engineer(Steel-Sub Structure), Engineer-Pile Driver, Jersey-Spreader, Pavement breaker, Post Hole Digger

WAGES: (per hour)

	07/01/2021	03/07/2022	03/06/2023
GROUP I	\$ 64.63	\$ 65.97	\$ 67.27
GROUP I-A	57.02	58.16	59.21
GROUP I-B	60.06	61.28	62.46
GROUP II-A	54.61	55.70	56.74
GROUP II-B	56.31	57.44	58.52
GROUP III	53.66	54.72	55.74
GROUP IV-A	48.80	49.74	50.63
GROUP IV-B	41.94	42.71	43.43
GROUP V-A			
Engineer-Cranes	73.18	74.73	76.24
Engineer-Pile Driver	70.67	72.16	73.61
Hoist Engineer	66.29	67.67	69.01
Jersey Spreader/Post Hole Digger	55.87	56.99	58.06

SHIFT DIFFERENTIAL:

A 15% premium on all hours paid, including overtime hours for 2nd, 3rd shifts
on all government mandated off-shift work

An additional 20% to wage when required to wear protective equipment on hazardous/toxic waste projects. Operators required to use two buckets pouring concrete on other than road pavement shall receive \$0.50 per hour over scale. Engineers operating cranes with booms 100 feet but less than 149 feet in length will be paid an additional \$2.00 per hour. Engineers operating cranes with booms 149 feet or over in length will be paid an additional \$3.00 per hour. Operators of shovels with a capacity over (4) cubic yards shall be paid an additional \$1.00 per hour. Operators of loaders with a capacity over (5) cubic yards shall be paid an additional \$0.50 per hour.

SUPPLEMENTAL BENEFITS

Per hour:

Journeyworker:

	07/01/2021	03/07/2022	03/06/2023
	\$ 23.60	\$ 24.55	\$ 25.70
	+ \$8.00	+ \$8.00	+ \$8.00
(Limited to first 40 hours)		(Limited to first 40 hours)	(Limited to first 40 hours)

OVERTIME PAY

See (D, O, *U, V) on OVERTIME PAGE

HOLIDAY

Paid: See (5, 6, 8, 15, 25, 26) on HOLIDAY PAGE

Overtime: See (5, 6, 8, 15, 25, 26) on HOLIDAY PAGE

* Note: For Holiday codes 5 & 6, code U applies. For Holiday codes 8, 15, 25, 26, code R applies.

Note: If employees are required to work on Easter Sunday, they shall be paid at the rate of triple time.

REGISTERED APPRENTICES

(1)year terms at the following rates:

	07/01/2021	03/07/2022	03/06/2023
1st term	\$ 28.51	\$ 29.08	\$ 29.63
2nd term	34.21	34.90	35.56
3rd term	39.91	40.71	41.48
4th term	45.61	46.53	47.41

Supplemental Benefits per hour:

All terms	\$ 23.60	\$ 24.55	\$ 25.70
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Operating Engineer - Marine Dredging

08/01/2021

JOB DESCRIPTION Operating Engineer - Marine Dredging

DISTRICT 4

ENTIRE COUNTIES

Albany, Bronx, Cayuga, Clinton, Columbia, Dutchess, Essex, Franklin, Greene, Jefferson, Kings, Monroe, Nassau, New York, Orange, Oswego, Putnam, Queens, Rensselaer, Richmond, Rockland, St. Lawrence, Suffolk, Ulster, Washington, Wayne, Westchester

WAGES

These wages do not apply to Operating Engineers on land based construction projects. For those projects, please see the Operating Engineer Heavy/Highway Rates. The wage rates below for all equipment and operators are only for marine dredging work in navigable waters found in the counties listed above.

Per Hour: 07/01/2021 10/01/2021

CLASS A1 \$ 41.42 \$ 41.42

Deck Captain, Leverman

Mechanical Dredge Operator

Licensed Tug Operator 1000HP or more.

CLASS A2 36.91 36.91

Crane Operator (360 swing)

CLASS B To conform to Operating Engineer
Dozer, Front Loader Prevailing Wage in locality where work
Operator on Land is being performed including benefits.

CLASS B1 35.82 35.82

Derrick Operator (180 swing)

Spider/Spill Barge Operator

Operator II, Fill Placer,

Engineer, Chief Mate, Electrician,

Chief Welder, Maintenance Engineer

Licensed Boat, Crew Boat Operator

CLASS B2 33.72 33.72

Certified Welder

CLASS C1 32.80 32.80

Drag Barge Operator,

Steward, Mate,

Assistant Fill Placer

CLASS C2 30.89 31.74

Boat Operator

CLASS D 25.66 26.37

Shoreman, Deckhand, Oiler,

Rodman, Scowman, Cook,

Messman, Porter/Janitor

SUPPLEMENTAL BENEFITS

Per Hour:

THE FOLLOWING SUPPLEMENTAL BENEFITS APPLY TO ALL CATEGORIES

	07/01/2021	10/01/2021
All Classes A & B	\$11.98 plus 8%	\$11.98 plus 8%
	of straight time	of straight time
	wage, Overtime hours	wage, Overtime hours
	add \$ 0.63	add \$ 0.63

All Class C	\$11.68 plus 8%	11.68 plus 8%
	of straight time	of straight time
	wage, Overtime hours	wage, Overtime hours
	add \$ 0.48	add \$ 0.48

All Class D	\$11.38 plus 8%	11.38 plus 8%
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of straight time
wage, Overtime hours
add \$ 0.33

of straight time
wage, Overtime hours
add \$ 0.33

OVERTIME PAY

See (B2, F, R) on OVERTIME PAGE

HOLIDAY

Paid: See (1) on HOLIDAY PAGE
Overtime: See (5, 6, 8, 15, 26) on HOLIDAY PAGE

4-25a-MarDredge

Operating Engineer - Survey Crew - Consulting Engineer

08/01/2021

JOB DESCRIPTION Operating Engineer - Survey Crew - Consulting Engineer

DISTRICT 9

ENTIRE COUNTIES

Bronx, Kings, Nassau, New York, Putnam, Queens, Richmond, Suffolk, Westchester

PARTIAL COUNTIES

Dutchess: That part in Dutchess County lying South of the North City line of Poughkeepsie.

WAGES

Feasibility and preliminary design surveying, any line and grade surveying for inspection or supervision of construction.

Per hour: 07/01/2021
Survey Classifications

Party Chief \$ 45.83
Instrument Man 38.17
Rodman 33.34

SUPPLEMENTAL BENEFITS

Per Hour:

All Crew Members: \$ 20.60

OVERTIME PAY

OVERTIME:.... See (B, E*, Q, V) ON OVERTIME PAGE.

*Doubletime paid on the 9th hour on Saturday.

HOLIDAY

Paid: See (5, 6, 7, 11, 16) on HOLIDAY PAGE
Overtime: See (5, 6, 7, 11, 16) on HOLIDAY PAGE

9-15dconsult

Painter

08/01/2021

JOB DESCRIPTION Painter

DISTRICT 8

ENTIRE COUNTIES

Bronx, Kings, Nassau, New York, Putnam, Queens, Richmond, Suffolk, Westchester

WAGES

Per hour: 07/01/2021

Brush \$ 50.30*

Abatement/Removal of lead based
or lead containing paint on
materials to be repainted. 50.30*

Spray & Scaffold \$ 53.30*
Fire Escape 53.30*
Decorator 53.30*
Paperhanger/Wall Coverer 52.93*

*Subtract \$ 0.10 to calculate premium rate.

SUPPLEMENTAL BENEFITS

Per hour: 07/01/2021

Paperhanger \$ 31.83
All others 29.81
Premium 33.40*
H-53
Page 52

**Applies only to "All others" category, not paperhanger journeyworker.

OVERTIME PAY

See (A, H) on OVERTIME PAGE

HOLIDAY

Paid: See (1) on HOLIDAY PAGE

Overtime: See (5, 6, 16, 25) on HOLIDAY PAGE

REGISTERED APPRENTICES

One (1) year terms at the following wage rate.

Per hour:	07/01/2021
Appr 1st term...	\$ 19.56*
Appr 2nd term...	25.12*
Appr 3rd term...	30.42*
Appr 4th term...	40.65*

*Subtract \$ 0.10 to calculate premium rate.

Supplemental benefits:

Per Hour:	07/01/2021
Appr 1st term...	\$ 14.72
Appr 2nd term...	18.23
Appr 3rd term...	21.06
Appr 4th term...	26.67

8-NYDC9-B/S

Painter

08/01/2021

JOB DESCRIPTION Painter

DISTRICT 8

ENTIRE COUNTIES

Putnam, Suffolk, Westchester

PARTIAL COUNTIES

Nassau: All of Nassau except the areas described below: Atlantic Beach, Ceadershurst, East Rockaway, Gibson, Hewlett, Hewlett Bay, Hewlett Neck, Hewlett Park, Inwood, Lawrence, Lido Beach, Long Beach, parts of Lynbrook, parts of Oceanside, parts of Valley Stream, and Woodmere. Starting on the South side of Sunrise Hwy in Valley Stream running east to Windsor and Rockaway Ave., Rockville Centre is the boundary line up to Lawson Blvd. turn right going west all the above territory. Starting at Union Turnpike and Lakeville Rd. going north to Northern Blvd. the west side of Lakeville road to Northern blvd. At Northern blvd. going east the district north of Northern blvd. to Port Washington Blvd. West of Port Washington blvd. to St. Francis Hospital then north of first traffic light to Port Washington and Sands Point, Manor HAVen, Harbour Acres.

WAGES

Per hour:	07/01/2021
Drywall Taper	\$ 50.30*

*Subtract \$ 0.10 to calculate premium rate.

SUPPLEMENTAL BENEFITS

Per hour:	07/01/2021
Journeyman	\$ 29.81

OVERTIME PAY

See (A, H) on OVERTIME PAGE

HOLIDAY

Paid: See (1) on HOLIDAY PAGE

Overtime: See (5, 6, 16, 25) on HOLIDAY PAGE

REGISTERED APPRENTICES

Wages - Per Hour:	07/01/2021
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1500 hour terms at the following wage rate:

1st term	\$ 19.56*
2nd term	25.12*
3rd term	30.42*
4th term	40.65*

*Subtract \$ 0.10 to calculate premium rate.

Supplemental Benefits - Per hour:

One year term (1500 hours) at the following dollar amount.

1st year	\$ 14.72
2nd year	18.23
3rd year	21.06
4th year	26.67

8-NYDCT9-DWT

Painter - Bridge & Structural Steel

08/01/2021

JOB DESCRIPTION Painter - Bridge & Structural Steel

DISTRICT 8

ENTIRE COUNTIES

Albany, Bronx, Clinton, Columbia, Dutchess, Essex, Franklin, Fulton, Greene, Hamilton, Kings, Montgomery, Nassau, New York, Orange, Putnam, Queens, Rensselaer, Richmond, Rockland, Saratoga, Schenectady, Schoharie, Suffolk, Sullivan, Ulster, Warren, Washington, Westchester

WAGES

Per Hour:

STEEL:

Bridge Painting:	07/01/2021	10/01/2021
	\$ 51.50	\$ 53.00
	+ 8.63*	+ 9.63*

ADDITIONAL \$6.00 per hour for POWER TOOL/SPRAY, whether straight time or overtime.

NOTE: All premium wages are to be calculated on base rate per hour only.

* For the period of May 1st to November 15th, this amount is payable up to 40 hours. For the period of Nov 16th to April 30th, this amount is payable up to 50 hours. EXCEPTION: First and last week of employment, and for the weeks of Memorial Day, Independence Day and Labor Day, where the amount is paid for the actual number of hours worked (no cap).

NOTE: Generally, for Bridge Painting Contracts, ALL WORKERS on and off the bridge (including Flagmen) are to be paid Painter's Rate; the contract must be ONLY for Bridge Painting.

SHIFT WORK:

When directly specified in public agency or authority contract documents for an employer to work a second shift and works the second shift with employees other than from the first shift, all employees who work the second shift will be paid 10% of the base wage shift differential in lieu of overtime for the first eight (8) hours worked after which the employees shall be paid at time and one half of the regular wage rate. When a single irregular work shift is mandated in the job specifications or by the contracting agency, wages shall be paid at time and one half for single shifts between the hours of 3pm-11pm or 11pm-7am.

SUPPLEMENTAL BENEFITS

Per Hour:

Journeyworker:	07/01/2021	10/01/2021
	\$ 10.90	\$ 10.90
	+ 30.00*	+ 30.60*

* For the period of May 1st to November 15th, this amount is payable up to 40 hours. For the period of Nov 16th to April 30th, this amount is payable up to 50 hours. EXCEPTION: First and last week of employment, and for the weeks of Memorial Day, Independence Day and Labor Day, where the amount is paid for the actual number of hours worked (no cap).

OVERTIME PAY

See (B, F, R) on OVERTIME PAGE

HOLIDAY

Paid: See (1) on HOLIDAY PAGE
Overtime: See (4, 6) on HOLIDAY PAGE

REGISTERED APPRENTICES

Wage - Per hour:

Apprentices: (1) year terms	07/01/2021	10/01/2021
1st year	\$ 20.60	\$ 21.20
	+ 3.45*	+ 3.86*
2nd year	\$ 30.90	\$ 31.80
	+ 5.18*	+ 5.78*

3rd year	\$ 41.20 + 6.90*	\$ 42.40 + 7.70*
Supplemental Benefits - Per hour:		
1st year	\$.25 + 12.00*	\$.25 + 12.24*
2nd year	\$ 10.90 + 18.00*	\$ 10.90 + 18.36*
3rd year	\$ 10.20 + 24.00*	\$ 10.90 + 24.48*

NOTE: All premium wages are to be calculated on base rate per hour only.

8-DC-9/806/155-BrSS

Painter - Line Striping	08/01/2021
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JOB DESCRIPTION Painter - Line Striping

DISTRICT 8

ENTIRE COUNTIES

Albany, Bronx, Clinton, Columbia, Dutchess, Essex, Franklin, Fulton, Greene, Hamilton, Kings, Montgomery, Nassau, New York, Orange, Putnam, Queens, Rensselaer, Richmond, Rockland, Saratoga, Schenectady, Schoharie, Suffolk, Sullivan, Ulster, Warren, Washington, Westchester

WAGES

Per hour:

Painter (Striping-Highway):	07/01/2021	07/01/2022
Striping-Machine Operator*	\$ 30.32	\$ 31.53
Linerman Thermoplastic	36.93	38.34

Note: * Includes but is not limited to: Positioning of cones and directing of traffic using hand held devices. Excludes the Driver/Operator of equipment used in the maintenance and protection of traffic safety.

Four (4), ten (10) hour days may be worked at straight time during a week, Monday thru Thursday. Friday may be used as a make-up day.

NOTE - In order to use the '4 Day/10 Hour Work Schedule,' as your normal schedule, you must submit an 'Employer Registration for Use of 4 Day/10 Hour Work Schedule,' form PW30.1; and there must be a dispensation of hours in place on the project. If the PW30.1 is not submitted you may be liable for overtime payments for work over 8 hours per day.

SUPPLEMENTAL BENEFITS

Per hour paid:	07/01/2021	07/01/2022
Journeyworker:		
Striping Machine Operator:	\$ 10.03	\$ 10.03
Linerman Thermoplastic:	10.03	10.03

OVERTIME PAY

See (B, B2, E2, F, S) on OVERTIME PAGE

HOLIDAY

Paid: See (5, 20) on HOLIDAY PAGE
Overtime: See (5, 20) on HOLIDAY PAGE

REGISTERED APPRENTICES

One (1) year terms at the following wage rates:

	07/01/2021	07/01/2022
1st Term:	\$ 12.50	\$ 12.61
2nd Term:	18.19	18.92
3rd Term:	24.26	25.22

Supplemental Benefits per hour:

1st term:	\$ 9.16	\$ 10.03
2nd Term:	9.16	10.03
3rd Term:	9.16	10.03

Painter - Metal Polisher**08/01/2021**

JOB DESCRIPTION Painter - Metal Polisher**DISTRICT** 8**ENTIRE COUNTIES**

Albany, Allegany, Bronx, Broome, Cattaraugus, Cayuga, Chautauqua, Chemung, Chenango, Clinton, Columbia, Cortland, Delaware, Dutchess, Erie, Essex, Franklin, Fulton, Genesee, Greene, Hamilton, Herkimer, Jefferson, Kings, Lewis, Livingston, Madison, Monroe, Montgomery, Nassau, New York, Niagara, Oneida, Onondaga, Ontario, Orange, Orleans, Oswego, Otsego, Putnam, Queens, Rensselaer, Richmond, Rockland, Saratoga, Schenectady, Schoharie, Schuyler, Seneca, St. Lawrence, Steuben, Suffolk, Sullivan, Tioga, Tompkins, Ulster, Warren, Washington, Wayne, Westchester, Wyoming, Yates

WAGES

	07/01/2021
Metal Polisher	\$ 37.13
Metal Polisher*	38.23
Metal Polisher**	41.13

*Note: Applies on New Construction & complete renovation

** Note: Applies when working on scaffolds over 34 feet.

SUPPLEMENTAL BENEFITS

Per Hour: 07/01/2021

Journeyworker:

All classification \$ 10.64

OVERTIME PAY

See (B, E, P, T) on OVERTIME PAGE

HOLIDAY

Paid: See (5, 6, 11, 15, 16, 25, 26) on HOLIDAY PAGE

Overtime: See (5, 6, 9, 11, 15, 16, 25, 26) on HOLIDAY PAGE

REGISTERED APPRENTICES

Wages per hour:

One (1) year term at the following wage rates:

	07/01/2021
1st year	\$ 16.00
2nd year	17.00
3rd year	18.00
1st year*	\$ 16.39
2nd year*	17.44
3rd year*	18.54
1st year**	\$ 18.50
2nd year**	19.50
3rd year**	20.50

*Note: Applies on New Construction & complete renovation

** Note: Applies when working on scaffolds over 34 feet.

Supplemental benefits:

Per hour:

1st year	\$ 7.39
2nd year	7.39
3rd year	7.39

8-8A/28A-MP

Plumber**08/01/2021**

JOB DESCRIPTION Plumber**DISTRICT** 8**ENTIRE COUNTIES**

Putnam, Westchester

WAGES

Per hour:

	07/01/2021
Plumber and Steamfitter	\$ 59.01

SHIFT WORK:

When directly specified in public agency or authority contract documents, shift work outside the regular hours of work shall be comprised of eight (8) hours per shift not including Saturday, Sundays and holidays. One half (1/2) hour shall be allowed for lunch after the first four (4) hours of each shift. Wage and Fringes for shift work shall be straight time plus a shift premium of twenty-five (25%) percent. A minimum of five days Monday through Friday must be worked to establish shift work.

SUPPLEMENTAL BENEFITS

Per hour:

Journeyworker \$ 39.26

OVERTIME PAY

See (B, E, E2, Q, V) on OVERTIME PAGE

OVERTIME:.... See on OVERTIME PAGE.

HOLIDAY

Paid: See (1) on HOLIDAY PAGE

Overtime: See (5, 6, 8, 16, 25) on HOLIDAY PAGE

REGISTERED APPRENTICES

(1)year terms at the following wages:

1st Term	\$ 21.89
2nd Term	25.13
3rd Term	29.01
4th Term	41.43
5th Term	44.45

Supplemental Benefits per hour:

1st term	\$ 16.25
2nd term	18.13
3rd term	21.57
4th term	28.41
5th term	30.11

8-21.1-ST

Plumber - HVAC / Service

08/01/2021

JOB DESCRIPTION Plumber - HVAC / Service

DISTRICT 8

ENTIRE COUNTIES

Dutchess, Putnam, Westchester

PARTIAL COUNTIES

Delaware: Only the townships of Middletown and Roxbury

Ulster: Entire County(including Wallkill and Shawangunk Prisons) except for remainder of Town of Shawangunk and Towns of Plattekill, Marlboro, and Wawarsing.

WAGES

Per hour: 07/01/2021

HVAC Service \$ 40.68
+ \$ 4.32*

*Note: This portion of wage is not subject to overtime premium.

SUPPLEMENTAL BENEFITS

Per hour:

07/01/2021

Journeyworker HVAC Service

\$ 26.54

OVERTIME PAY

See (B, F, R) on OVERTIME PAGE

HOLIDAY

Paid: See (5, 6, 16, 25) on HOLIDAY PAGE

Overtime: See (5, 6, 16, 25) on HOLIDAY PAGE

REGISTERED APPRENTICES

HVAC SERVICE

(1) year terms at the following wages:

1st yr.	2nd yr.	3rd yr.	4th yr.	5th yr.
\$ 18.50	\$ 21.88	\$ 27.31	\$ 33.56	\$ 36.36
+\$2.37*	+\$2.67*	+\$3.22*	+\$3.84*	+\$4.07*

*Note: This portion of wage is not subject to overtime premium.

Supplemental Benefits per hour:

Apprentices	07/01/2021
1st term	\$ 19.66
2nd term	20.86
3rd term	22.21
4th term	24.02
5th term	25.33

8-21.1&2-SF/Re/AC

Plumber - Jobbing & Alterations

08/01/2021

JOB DESCRIPTION Plumber - Jobbing & Alterations

DISTRICT 8

ENTIRE COUNTIES

Dutchess, Putnam, Westchester

PARTIAL COUNTIES

Ulster: Entire county (including Wallkill and Shawangunk Prisons in Town of Shawangunk) EXCEPT for remainder of Town of Shawangunk, and Towns of Plattekill, Marlboro, and Wawarsing.

WAGES

Per hour:	07/01/2021
Journeyworker:	\$ 45.83

Repairs, replacements and alteration work is any repair or replacement of a present plumbing system that does not change existing roughing or water supply lines.

SHIFT WORK:

When directly specified in public agency or authority contract documents, shift work outside the regular hours of work shall be comprised of eight (8) hours per shift not including Saturday, Sundays and holidays. One half (1/2) hour shall be allowed for lunch after the first four (4) hours of each shift. Wage and Fringes for shift work shall be straight time plus a shift premium of twenty-five (25%) percent. A minimum of five days Monday through Friday must be worked to establish shift work.

SUPPLEMENTAL BENEFITS

Per hour:

Journeyworker	\$ 32.96
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OVERTIME PAY

See (B, *E, E2, Q, V) on OVERTIME PAGE

*When used as a make-up day, hours after 8 on Saturday shall be paid at time and one half.

HOLIDAY

Paid:	See (1) on HOLIDAY PAGE
Overtime:	See (5, 6, 8, 16, 25) on HOLIDAY PAGE

REGISTERED APPRENTICES

(1) year terms at the following wages:

1st year	\$ 19.88
2nd year	22.06
3rd year	23.90
4th year	33.57
5th year	35.46

Supplemental Benefits per hour:

1st year	\$ 10.74
2nd year	12.65
3rd year	16.58
4th year	22.39
5th year	24.32

Roofer

08/01/2021

JOB DESCRIPTION Roofer

DISTRICT 9

ENTIRE COUNTIES

Bronx, Dutchess, Kings, New York, Orange, Putnam, Queens, Richmond, Rockland, Sullivan, Ulster, Westchester

WAGES

Per Hour: 07/01/2021

Roofer/Waterproofer \$ 45.25
+ \$7.00*

* This portion is not subjected to overtime premiums.

Note: Abatement/Removal of Asbestos containing roofs and roofing material is classified as Roofer.

SUPPLEMENTAL BENEFITS

Per Hour: \$ 28.62

OVERTIME PAY

See (B, H) on OVERTIME PAGE

Note: An observed holiday that falls on a Sunday will be observed the following Monday.

HOLIDAY

Paid: See (1) on HOLIDAY PAGE

Overtime: See (5, 6) on HOLIDAY PAGE

REGISTERED APPRENTICES

(1) year term

1st	2nd	3rd	4th
\$ 15.84	\$ 22.63	\$ 27.15	\$ 33.94
	+ 3.50*	+ 4.20*	+ 5.26*

Supplements:

1st	2nd	3rd	4th
\$ 3.72	\$ 14.47	\$ 17.84	\$ 21.55

9-8R

Sheetmetal Worker

08/01/2021

JOB DESCRIPTION Sheetmetal Worker

DISTRICT 8

ENTIRE COUNTIES

Dutchess, Orange, Putnam, Rockland, Sullivan, Ulster, Westchester

WAGES

07/01/2021
SheetMetal Worker \$ 44.15
+ 3.37*

*This portion is not subject to overtime premiums.

SHIFT WORK

For all NYS D.O.T. and other Governmental mandated off-shift work:

10% increase for additional shifts for a minimum of five (5) days

SUPPLEMENTAL BENEFITS

Journeyworker \$ 44.20

OVERTIME PAY

OVERTIME:.. See (B, E, Q,) on OVERTIME PAGE.

HOLIDAY

Paid: See (1) on HOLIDAY PAGE

Overtime: See (5, 6, 8, 15, 16, 23) on HOLIDAY PAGE

REGISTERED APPRENTICES

1st	2nd	3rd	4th	5th	6th	7th	8th
\$ 16.36	\$ 18.41	\$ 20.46	\$ 22.51	\$ 24.54	\$ 26.60	\$ 29.12	\$ 31.65
+ 1.35*	+ 1.52*	+ 1.69*	+ 1.85*	+ 2.02*	+ 2.19*	+ 2.36*	+ 2.53*

*This portion is not subject to overtime premiums.

Supplemental Benefits per hour:

Apprentices	
1st term	\$ 18.96
2nd term	21.34
3rd term	23.71
4th term	26.11
5th term	28.46
6th term	30.82
7th term	32.72
8th term	34.64

8-38

Sheetmetal Worker	08/01/2021
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JOB DESCRIPTION Sheetmetal Worker

DISTRICT 4

ENTIRE COUNTIES

Bronx, Kings, Nassau, New York, Queens, Richmond, Rockland, Suffolk, Westchester

WAGES

Per Hour:	07/01/2021	8/01/2021
Sign Erector	\$ 52.29	\$ 53.97

NOTE: Structurally Supported Overhead Highway Signs(See STRUCTURAL IRON WORKER CLASS)

SUPPLEMENTAL BENEFITS

Per Hour:	07/01/2021	8/01/2021
Sign Erector	\$ 51.26	\$ 53.15

OVERTIME PAY

See (A, F, S) on OVERTIME PAGE

HOLIDAY

Paid: See (5, 6, 10, 11, 12, 16, 25) on HOLIDAY PAGE
Overtime: See (5, 6, 10, 11, 12, 16, 25) on HOLIDAY PAGE

REGISTERED APPRENTICES

Per Hour:
6 month Terms at the following percentage of Sign Erectors wage rate:

1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
35%	40%	45%	50%	55%	60%	65%	70%	75%	80%

SUPPLEMENTAL BENEFITS

Per Hour:										
07/01/2021										
1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	
\$ 14.34	\$ 16.26	\$ 18.17	\$ 20.10	\$ 28.02	\$ 30.47	\$ 33.72	\$ 36.27	\$ 38.77	\$ 41.29	
8/01/2021										
1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	
\$ TBD	\$ TBD	\$ TBD	\$ TBD	\$ TBD	\$ TBD	\$ TBD	\$ TBD	\$ TBD	\$ TBD	
4-137-SE										

4-137-SE

Sprinkler Fitter	08/01/2021
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JOB DESCRIPTION Sprinkler Fitter

DISTRICT 1

ENTIRE COUNTIES

Dutchess, Orange, Putnam, Rockland, Sullivan, Ulster, Westchester

WAGES

Per hour	07/01/2021
Sprinkler Fitter	\$ 47.19

SUPPLEMENTAL BENEFITS

Per hour	
Journeyman	\$ 28.09

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

HOLIDAY

Paid: See (1) on HOLIDAY PAGE

Overtime: See (5, 6) on HOLIDAY PAGE

Note: When a holiday falls on Sunday, the following Monday shall be considered a holiday and all work performed on either day shall be at the double time rate. When a holiday falls on Saturday, the preceding Friday shall be considered a holiday and all work performed on either day shall be at the double time rate.

REGISTERED APPRENTICES

Wages per hour

One Half Year terms at the following wage.

1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
\$ 22.67	\$ 25.19	\$ 27.46	\$ 29.98	\$ 32.50	\$ 35.02	\$ 37.54	\$ 40.05	\$ 42.57	\$ 45.09

Supplemental Benefits per hour

1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
\$ 8.27	\$ 8.27	\$ 19.22	\$ 19.22	\$ 19.47	\$ 19.47	\$ 19.47	\$ 19.47	\$ 19.47	\$ 19.47
									1-669.2

Teamster - Building / Heavy&Highway

08/01/2021

JOB DESCRIPTION Teamster - Building / Heavy&Highway

DISTRICT 8

ENTIRE COUNTIES

Putnam, Westchester

WAGES

GROUP A: Straight Trucks (6-wheeler and 10-wheeler), A-frame, Winch, Dynamite Seeding, Mulching, Agitator, Water, Attenuator, Light Towers, Cement (all types), Suburban, Station Wagons, Cars, Pick Ups, any vehicle carrying materials of any kind.

GROUP AA: Tack Coat

GROUP B: Tractor & Trailers (all types).

GROUP BB: Tri-Axle, 14 Wheeler

GROUP C: Low Boy (carrying equipment).

GROUP D: Fuel Trucks, Tire Trucks.

GROUP E: Off-road Equipment (over 40 tons): Athey Wagons, Belly Dumps, Articulated Dumps, Trailer Wagons.

GROUP F: Off-road Equipment (over 40 tons) Euclid, DJB.

GROUP G: Off-road Equipment (under 40 tons) Athey Wagons, Belly Articulated Dumps, Trailer Wagons.

GROUP H: Off-road Equipment (under 40 tons), Euclid.

GROUP HH: Off-road Equipment (under 40 tons) D.J.B.

GROUP I: Off-road Equipment (under 40 tons) Darts.

GROUP II: Off-road Equipment (under 40 tons) RXS.

WAGES:(per hour)

07/01/2021

GROUP A	\$ 42.47*
GROUP AA	45.27*
GROUP B	43.09*
GROUP BB	42.59*
GROUP C	45.22*
GROUP D	42.92*
GROUP E	43.47*
GROUP F	44.47*
GROUP G	43.22*
GROUP H	43.84*
GROUP HH	44.22*
GROUP I	43.97*
GROUP II	44.34*

* To calculate premium wage, subtract \$.20 from the hourly wage.

Note: Fuel truck operators on construction sites addit. \$5.00 per day.

For work on hazardous/toxic waste site addit. 20% of hourly rate.

Shift Differential: NYS DOT or other Governmental Agency contracts shall receive a shift differential of Fifteen(15%)percent above the wage rate

Four (4), ten (10) hour days may be worked at straight time during a week, Monday thru Thursday.

NOTE - In order to use the '4 Day/10 Hour Work schedule', as your normal schedule, you must submit an 'Employer Registration for Use of 4 Day/10 Hour Work Schedule,' form PW30.1; and there must be a dispensation of hours in place on the project. If the PW30.1 is not submitted you may be liable for overtime payments for work over 8 hours per day.

SUPPLEMENTAL BENEFITS

Per hour:

Journeyworker

First 40 hours	\$ 33.64
41st-45th hours	15.18
Over 45 hours	0.26

OVERTIME PAY

See (B, E, P, R) on OVERTIME PAGE

HOLIDAY

Paid: See (5, 6, 8, 9, 15, 25) on HOLIDAY PAGE

Overtime: See (5, 6, 8, 9, 15, 25) on HOLIDAY PAGE

8-456

Welder

08/01/2021

JOB DESCRIPTION Welder

DISTRICT 1

ENTIRE COUNTIES

Albany, Allegany, Bronx, Broome, Cattaraugus, Cayuga, Chautauqua, Chemung, Chenango, Clinton, Columbia, Cortland, Delaware, Dutchess, Erie, Essex, Franklin, Fulton, Genesee, Greene, Hamilton, Herkimer, Jefferson, Kings, Lewis, Livingston, Madison, Monroe, Montgomery, Nassau, New York, Niagara, Oneida, Onondaga, Ontario, Orange, Orleans, Oswego, Otsego, Putnam, Queens, Rensselaer, Richmond, Rockland, Saratoga, Schenectady, Schoharie, Schuyler, Seneca, St. Lawrence, Steuben, Suffolk, Sullivan, Tioga, Tompkins, Ulster, Warren, Washington, Wayne, Westchester, Wyoming, Yates

WAGES

Per hour 07/01/2021

Welder: To be paid the same rate of the mechanic performing the work.*

*EXCEPTION: If a specific welder certification is required, then the 'Certified Welder' rate in that trade tag will be paid.

OVERTIME PAY

HOLIDAY

1-As Per Trade

Overtime Codes

Following is an explanation of the code(s) listed in the OVERTIME section of each classification contained in the attached schedule. Additional requirements may also be listed in the HOLIDAY section.

NOTE: Supplemental Benefits are 'Per hour worked' (for each hour worked) unless otherwise noted

- (AA) Time and one half of the hourly rate after 7 and one half hours per day
- (A) Time and one half of the hourly rate after 7 hours per day
- (B) Time and one half of the hourly rate after 8 hours per day
- (B1) Time and one half of the hourly rate for the 9th & 10th hours week days and the 1st 8 hours on Saturday.
Double the hourly rate for all additional hours
- (B2) Time and one half of the hourly rate after 40 hours per week
- (C) Double the hourly rate after 7 hours per day
- (C1) Double the hourly rate after 7 and one half hours per day
- (D) Double the hourly rate after 8 hours per day
- (D1) Double the hourly rate after 9 hours per day
- (E) Time and one half of the hourly rate on Saturday
- (E1) Time and one half 1st 4 hours on Saturday; Double the hourly rate all additional Saturday hours
- (E2) Saturday may be used as a make-up day at straight time when a day is lost during that week due to inclement weather
- (E3) Between November 1st and March 3rd Saturday may be used as a make-up day at straight time when a day is lost during that week due to inclement weather, provided a given employee has worked between 16 and 32 hours that week
- (E4) Saturday and Sunday may be used as a make-up day at straight time when a day is lost during that week due to inclement weather
- (E5) Double time after 8 hours on Saturdays
- (F) Time and one half of the hourly rate on Saturday and Sunday
- (G) Time and one half of the hourly rate on Saturday and Holidays
- (H) Time and one half of the hourly rate on Saturday, Sunday, and Holidays
- (I) Time and one half of the hourly rate on Sunday
- (J) Time and one half of the hourly rate on Sunday and Holidays
- (K) Time and one half of the hourly rate on Holidays
- (L) Double the hourly rate on Saturday
- (M) Double the hourly rate on Saturday and Sunday
- (N) Double the hourly rate on Saturday and Holidays
- (O) Double the hourly rate on Saturday, Sunday, and Holidays
- (P) Double the hourly rate on Sunday
- (Q) Double the hourly rate on Sunday and Holidays
- (R) Double the hourly rate on Holidays
- (S) Two and one half times the hourly rate for Holidays

- (S1) Two and one half times the hourly rate the first 8 hours on Sunday or Holidays One and one half times the hourly rate all additional hours.
- (T) Triple the hourly rate for Holidays
- (U) Four times the hourly rate for Holidays
- (V) Including benefits at SAME PREMIUM as shown for overtime
- (W) Time and one half for benefits on all overtime hours.
- (X) Benefits payable on Paid Holiday at straight time. If worked, additional benefit amount will be required for worked hours. (Refer to other codes listed.)

Holiday Codes

PAID Holidays:

Paid Holidays are days for which an eligible employee receives a regular day's pay, but is not required to perform work. If an employee works on a day listed as a paid holiday, this remuneration is in addition to payment of the required prevailing rate for the work actually performed.

OVERTIME Holiday Pay:

Overtime holiday pay is the premium pay that is required for work performed on specified holidays. It is only required where the employee actually performs work on such holidays. The applicable holidays are listed under HOLIDAYS: OVERTIME. The required rate of pay for these covered holidays can be found in the OVERTIME PAY section listings for each classification.

Following is an explanation of the code(s) listed in the HOLIDAY section of each classification contained in the attached schedule. The Holidays as listed below are to be paid at the wage rates at which the employee is normally classified.

- (1) None
- (2) Labor Day
- (3) Memorial Day and Labor Day
- (4) Memorial Day and July 4th
- (5) Memorial Day, July 4th, and Labor Day
- (6) New Year's, Thanksgiving, and Christmas
- (7) Lincoln's Birthday, Washington's Birthday, and Veterans Day
- (8) Good Friday
- (9) Lincoln's Birthday
- (10) Washington's Birthday
- (11) Columbus Day
- (12) Election Day
- (13) Presidential Election Day
- (14) 1/2 Day on Presidential Election Day
- (15) Veterans Day
- (16) Day after Thanksgiving
- (17) July 4th
- (18) 1/2 Day before Christmas
- (19) 1/2 Day before New Years
- (20) Thanksgiving
- (21) New Year's Day
- (22) Christmas
- (23) Day before Christmas
- (24) Day before New Year's
- (25) Presidents' Day
- (26) Martin Luther King, Jr. Day
- (27) Memorial Day
- (28) Easter Sunday

(29) Juneteenth



New York State Department of Labor - Bureau of Public Work
State Office Building Campus
Building 12 - Room 130
Albany, New York 12240

REQUEST FOR WAGE AND SUPPLEMENT INFORMATION

As Required by Articles 8 and 9 of the NYS Labor Law

Fax (518) 485-1870 or mail this form for new schedules or for determination for additional occupations.

This Form Must Be Typed

Submitted By:

(Check Only One)

☐

Contracting Agency

☐

Architect or Engineering Firm

☐

Public Work District Office

Date:

A. Public Work Contract to be let by: (Enter Data Pertaining to Contracting/Public Agency)

1. Name and complete address ☐ (Check if new or change)

Telephone: ()

Fax: ()

E-Mail:

2. NY State Units (see Item 5)

☐ 01 DOT

☐ 02 OGS

☐ 03 Dormitory Authority

☐ 04 State University
Construction Fund

☐ 05 Mental Hygiene
Facilities Corp.

☐ 06 OTHER N.Y. STATE UNIT

☐ 07 City

☐ 08 Local School District

☐ 09 Special Local District, i.e.,
Fire, Sewer, Water District

☐ 10 Village

☐ 11 Town

☐ 12 County

☐ 13 Other Non-N.Y. State
(Describe)

3. SEND REPLY TO ☐ (check if new or change)
Name and complete address:

Telephone:()

Fax: ()

E-Mail:

4. SERVICE REQUIRED. Check appropriate box and provide project information.

☐ New Schedule of Wages and Supplements.

APPROXIMATE BID DATE :

☐ Additional Occupation and/or Redetermination

PRC NUMBER ISSUED PREVIOUSLY FOR
THIS PROJECT :

OFFICE USE ONLY

B. PROJECT PARTICULARS

5. Project Title

Description of Work

Contract Identification Number

Note: For NYS units, the OSC Contract No.

6. Location of Project:

Location on Site

Route No/Street Address

Village or City

Town

County

7. Nature of Project - Check One:

☐ 1. New Building

☐ 2. Addition to Existing Structure

☐ 3. Heavy and Highway Construction (New and Repair)

☐ 4. New Sewer or Waterline

☐ 5. Other New Construction (Explain)

☐ 6. Other Reconstruction, Maintenance, Repair or Alteration

☐ 7. Demolition

☐ 8. Building Service Contract

8. OCCUPATION FOR PROJECT :

☐ Construction (Building, Heavy
Highway/Sewer/Water)

☐ Tunnel

☐ Residential

☐ Landscape Maintenance

☐ Elevator maintenance

☐ Exterminators, Fumigators

☐ Fire Safety Director, NYC Only

☐ Guards, Watchmen

☐ Janitors, Porters, Cleaners,
Elevator Operators

☐ Moving furniture and
equipment

☐ Trash and refuse removal

☐ Window cleaners

☐ Other (Describe)

9. Has this project been reviewed for compliance with the Wicks Law involving separate bidding?

YES ☐

NO ☐

10. Name and Title of Requester

Signature



NEW YORK STATE DEPARTMENT OF LABOR
Bureau of Public Work - Debarment List

**LIST OF EMPLOYERS INELIGIBLE TO BID ON OR BE
AWARDED ANY PUBLIC WORK CONTRACT**

Under Article 8 and Article 9 of the NYS Labor Law, a contractor, sub-contractor and/or its successor shall be debarred and ineligible to submit a bid on or be awarded any public work or public building service contract/sub-contract with the state, any municipal corporation or public body for a period of five (5) years from the date of debarment when:

- Two (2) final determinations have been rendered within any consecutive six-year (6) period determining that such contractor, sub-contractor and/or its successor has WILLFULLY failed to pay the prevailing wage and/or supplements;
- One (1) final determination involves falsification of payroll records or the kickback of wages and/or supplements.

The agency issuing the determination and providing the information, is denoted under the heading 'Fiscal Officer'. DOL = New York State Department of Labor; NYC = New York City Comptroller's Office; AG = New York State Attorney General's Office; DA = County District Attorney's Office.

Debarment Database: To search for contractors, sub-contractors and/or their successors debarred from bidding or being awarded any public work contract or subcontract under NYS Labor Law Articles 8 and 9, or under NYS Workers' Compensation Law Section 141-b, access the database at this link: <https://applications.labor.ny.gov/EDList/searchPage.do>

For inquiries where WCB is listed as the "Agency", please call 1-866-546-9322

NYSDOL Bureau of Public Work Debarment List 06/28/2021

Article 8

AGENCY	Fiscal Officer	FEIN	EMPLOYER NAME	EMPLOYER DBA NAME	ADDRESS	DEBARMENT START DATE	DEBARMENT END DATE
DOL	NYC	*****9839	A.J.S. PROJECT MANAGEMENT, INC.		149 FIFTH AVENUE NEW YORK NY 10010	12/29/2016	12/29/2021
DOL	DOL	*****4018	ADIRONDACK BUILDING RESTORATION INC.		4156 WILSON ROAD EAST TABERG NY 13471	03/26/2019	03/26/2024
DOL	AG	*****1812	ADVANCED BUILDERS & LAND DEVELOPMENT, INC.		400 OSER AVE #2300HAUPPAUGE NY 11788	09/11/2019	09/11/2024
DOL	DOL	*****1687	ADVANCED SAFETY SPRINKLER INC		261 MILL ROAD P.O BOX 296EAST AURORA NY 14052	05/29/2019	05/29/2024
DOL	NYC	*****6775	ADVENTURE MASONRY CORP.		1535 RICHMOND AVENUE STATEN ISLAND NY 10314	12/13/2017	12/13/2022
DOL	NYC		AGOSTINHO TOME		405 BARRETTO ST BRONX NY 10474	05/31/2018	05/31/2023
DOL	DOL		AJ TORCHIA		10153 ROBERTS RD SAUQUOIT NY 13456	08/09/2016	08/09/2021
DOL	DOL		AMADEO J TORCHIA	TORCHIA'S HOME IMPROVEMENT	10153 ROBERTS RD SAUQUOIT NY 13456	08/09/2016	08/09/2021
DOL	NYC		AMJAD NAZIR		2366 61ST ST BROOKLYN NY 11204	12/15/2016	12/15/2021
DOL	NYC		AMJED PARVEZ		401 HANOVER AVENUE STATEN ISLAND NY 10304	01/11/2021	01/11/2026
DOL	DOL		ANGELO F COKER		2610 SOUTH SALINA STREET SUITE 14SYRACUSE NY 13205	09/17/2020	09/17/2025
DOL	DOL		ANGELO F COKER		2610 SOUTH SALINA STREET SUITE 14SYRACUSE NY 13205	12/04/2018	12/04/2023
DOL	DOL		ANITA SALERNO		158 SOLAR ST SYRACUSE NY 13204	01/07/2019	01/07/2024
DOL	NYC		ANTHONY J SCLAFANI		149 FIFTH AVE NEW YORK NY 10010	12/29/2016	12/29/2021
DOL	DOL		ANTHONY PERGOLA		3 WEST MAIN ST/SUITE 208 ELMSFORD NY 10323	01/23/2017	01/23/2022
DOL	DOL		ANTONIO ESTIVEZ		442 ARMONK RD MOUNT KISCO NY 10549	06/12/2018	06/12/2023
DOL	DOL		ARNOLD A. PAOLINI		1250 BROADWAY ST BUFFALO NY 14212	02/03/2020	02/03/2025
DOL	NYC		ARSHAD MEHMOOD		168-42 88TH AVENUE JAMAICA NY 11432	11/20/2019	11/20/2024
DOL	DOL		ARVINDER ATWAL		65 KENNETH PLACE NEW HYDE PARK NY 11040	07/19/2017	07/19/2022
DOL	NYC	*****6683	ATLAS RESTORATION CORP.		35-12 19TH AVENUE ASTORIA NY 11105	08/02/2017	08/02/2022
DOL	NYC	*****5532	ATWAL MECHANICALS, INC		65 KENNETH PLACE NEW HYDE PARK NY 11040	07/19/2017	07/19/2022
DOL	NYC	*****2591	AVI 212 INC.		260 CROSEY AVENUE APT 11BROOKLYN NY 11214	10/30/2018	10/30/2023
DOL	NYC		AZIDABEGUM		524 MCDONALD AVENUE BROOKLYN NY 11218	09/17/2020	09/17/2025
DOL	NYC		BALWINDER SINGH		421 HUDSON ST SUITE C5NEW YORK NY 10014	02/20/2019	02/20/2024
DOL	NYC	*****8416	BEAM CONSTRUCTION, INC.		50 MAIN ST WHITE PLAINS NY 10606	01/04/2019	01/04/2024
DOL	NYC	*****2113	BHW CONTRACTING, INC.		401 HANOVER AVENUE STATEN ISLAND NY 10304	01/11/2021	01/11/2026
DOL	DOL		BIAGIO CANTISANI			06/12/2018	06/12/2023
DOL	DOL	*****4512	BOB BRUNO EXCAVATING, INC		5 MORNINGSIDE DR AUBURN NY 13021	05/28/2019	05/28/2024
DOL	DOL		BOGDAN MARKOVSKI		370 W. PLEASANTVIEW AVE SUITE 2.329HACKENSACK NJ 07601	02/11/2019	02/11/2024
DOL	DOL		BRADLEY J SCHUKA		4 BROTHERS ROAD WAPPINGERS FALLS NY 12590	10/20/2020	10/20/2025
DOL	DOL	*****8551	BRANDY'S MASONRY		216 WESTBROOK STREET P O BOX 304SAYRE PA 18840	08/09/2016	08/09/2021
DOL	DOL	*****1449	BRRESTORATION NY INC		140 ARCADIA AVENUE OSWEGO NY 13126	09/12/2016	09/12/2021
DOL	DOL		BRUCE P. NASH JR.		5841 BUTTERNUT ROAD EAST SYRACUSE NY 13057	09/12/2018	09/12/2023
DOL	DOL	*****0225	C&D LAFACE CONSTRUCTION, INC.		8531 OSWEGO RD BALDWINVILLE NY 13027	02/03/2020	01/09/2023

NYSDOL Bureau of Public Work Debarment List 06/28/2021

Article 8

DOL	DOL	****8809	C.B.E. CONTRACTING CORPORATION		310 MCGUINNESS BLVD GREENPOINT NY 11222	03/07/2017	03/07/2022
DOL	DOL	****9383	C.C. PAVING AND EXCAVATING, INC.		2610 SOUTH SALINA ST SUITE 12SYRACUSE NY 13205	09/17/2020	09/17/2025
DOL	DOL	****9383	C.C. PAVING AND EXCAVATING, INC.		2610 SOUTH SALINA ST SUITE 12SYRACUSE NY 13205	12/04/2018	12/04/2023
DOL	DOL	****5161	CALADRI DEVELOPMENT CORP.		1223 PARK ST. PEEKSKILL NY 10566	05/17/2021	05/17/2026
DOL	DOL	****3391	CALI ENTERPRISES, INC.		1223 PARK STREET PEEKSKILL NY 10566	05/17/2021	05/17/2026
DOL	NYC		CALVIN WALTERS		465 EAST THIRD ST MT. VERNON NY 10550	09/09/2019	09/09/2024
DOL	DOL		CANTISANI & ASSOCIATES LTD		442 ARMONK RD MOUNT KISCO NY 10549	06/12/2018	06/12/2023
DOL	DOL		CANTISANI HOLDING LLC			06/12/2018	06/12/2023
DOL	DOL		CARMEN RACHETTA		8531 OSWEGO RD BALDWINVILLE NY 13027	02/03/2020	02/03/2025
DOL	DOL		CARMENA RACHETTA		8531 OSWEGO ROAD BALDWINVILLE NY 13027	02/03/2020	01/09/2023
DOL	DOL	****3812	CARMODY "2" INC			06/12/2018	06/12/2023
DOL	DOL	****1143	CARMODY BUILDING CORP	CARMODY CONTRACTING AND CARMODY CONTRACTING CORP.	442 ARMONK RD MOUNT KISCO NY 10549	06/12/2018	06/12/2023
DOL	DOL		CARMODY CONCRETE CORPORATION			06/12/2018	06/12/2023
DOL	DOL		CARMODY ENTERPRISES, LTD.		442 ARMONK RD MOUNT KISCO NY 10549	06/12/2018	06/12/2023
DOL	DOL		CARMODY INC		442 ARMONK RD MOUNT KISCO NY 10549	06/12/2018	06/12/2023
DOL	DOL	****3812	CARMODY INDUSTRIES INC			06/12/2018	06/12/2023
DOL	DOL		CARMODY MAINTENANCE CORPORATION		442 ARMONK RD MOUNT KISCO NY 10549	06/12/2018	06/12/2023
DOL	DOL		CARMODY MASONRY CORP		442 ARMONK RD MOUNT KISCO NY 10549	06/12/2018	06/12/2023
DOL	DOL	****8809	CBE CONTRACTING CORP		142 EAST MARKET STREET LONG BEACH NY 11561	03/07/2017	03/07/2022
DOL	AG		CESAR J. AGUDELO		81-06 34TH AVENUE APT. 6EJACKSON HEIGHTS NY 11372	02/07/2018	02/07/2023
DOL	DOL	****0026	CHANTICLEER CONSTRUCTION LLC		4 BROTHERS ROAD WAPPINGERS FALLS NY 12590	10/20/2020	10/20/2025
DOL	DOL		CHARLES ZIMMER JR		216 WESTBROOK STREET P O BOX 304SAYRE PA 18840	08/09/2016	08/09/2021
DOL	DOL		CHRISTOPHER J MAINI		19 CAITLIN AVE JAMESTOWN NY 14701	09/17/2018	09/17/2023
DOL	DOL		CHRISTOPHER PAPASTEFANO A/K/A CHRIS PAPASTEFANO		1445 COMMERCE AVE BRONX NY 10461	05/30/2019	05/30/2024
DOL	DOL	****1927	CONSTRUCTION PARTS WAREHOUSE, INC.	CPW	5841 BUTTERNUT ROAD EAST SYRACUSE NY 13057	09/12/2018	09/12/2023
DOL	DOL	****2524	CSI ELECTRICAL & MECHANICAL INC		42-32 235TH ST DOUGLSTON NY 11363	01/14/2019	01/14/2024
DOL	NYC		DALJIT KAUR BOPARAI		185-06 56TH AVE FRESH MEADOW NY 11365	10/17/2017	10/17/2022
DOL	DOL		DANICA IVANOSKI		61 WILLETT ST. PASSAIC NJ 07503	10/26/2016	10/26/2021
DOL	DOL		DARIAN L COKER		2610 SOUTH SALINA ST SUITE 2CSYRACUSE NY 13205	09/17/2020	09/17/2025
DOL	DOL		DARIAN L COKER		2610 SOUTH SALINA ST SUITE 2CSYRACUSE NY 13205	12/04/2018	12/04/2023
DOL	NYC		DAVID WEINER		14 NEW DROP LANE 2ND FLOORSTATEN ISLAND NY 10306	11/14/2019	11/14/2024
DOL	DOL		DEBBIE STURDEVANT		29 MAPLEWOOD DRIVE BINGHAMTON NY 13901	02/21/2017	02/21/2022
DOL	AG		DEBRA MARTINEZ		31 BAY ST BROOKLYN NY 11231	03/28/2018	03/28/2023
DOL	DOL		DELPHI PAINTING & DECORATING CO INC		1445 COMMERCE AVE BRONX NY 10461	05/30/2019	05/30/2024

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DOL	DOL		DENNIS SCHWANDTNER		C/O YES SERVICE AND REPAIR 145 LODGE AVE HUNTINGTON STATION NY 11476	08/09/2016	08/09/2021
DOL	DOL		DF CONTRACTORS OF ROCHESTER, INC.		1835 DAANSEN RD. PALMYRA NY 14522	05/16/2017	05/16/2022
DOL	DOL		DF CONTRACTORS, INC.		1835 DAANSEN RD. PALMYRA NY 14522	05/16/2017	05/16/2022
DOL	NYC		DIMITRIOS TSOUMAS		35-12 19TH AVENUE ASTORIA NY 11105	08/02/2017	08/02/2022
DOL	DOL		DOMENICO LAFACE		8531 OSWEGO RD BALDWINSVILLE NY 13027	02/03/2020	01/09/2023
DOL	DOL	*****3242	DONALD R. FORSAY	DF LAWN SERVICE	1835 DAANSEN RD. PALMYRA NY 14522	05/16/2017	05/16/2022
DOL	DOL		DONALD R. FORSAY		1835 DAANSEN RD. PALMYRA NY 14522	05/16/2017	05/16/2022
DOL	NYC		DUARTE LOPES		66-05 WOODHAVEN BLVD. STE 2 REGO PARK NY 11374	04/20/2017	04/20/2022
DOL	DOL	*****5175	EAGLE MECHANICAL AND GENERAL CONSTRUCTION LLC		11371 RIDGE RD WOLCOTT NY 14590	02/03/2020	02/03/2025
DOL	DOL		EAST COAST PAVING		2238 BAKER RD GILLET PA 16923	03/12/2018	03/12/2023
DOL	NYC	*****4269	EAST PORT EXCAVATION & UTILITIES		601 PORTION RD RONKONKOMA NY 11779	11/18/2016	11/18/2021
DOL	DOL	*****0780	EMES HEATING & PLUMBING CONTR		5 EMES LANE MONSEY NY 10952	01/20/2002	01/20/3002
DOL	NYC	*****5917	EPOCH ELECTRICAL, INC		97-18 50TH AVE CORONA NY 11368	04/19/2018	04/19/2024
DOL	DOL	*****7403	F & B PAINTING CONTRACTING INC		2 PARKVIEW AVENUE HARRISON NY 10604	09/26/2016	09/26/2021
DOL	DOL		FAIGY LOWINGER		11 MOUNTAIN RD 28 VAN BUREN DR MONROE NY 10950	03/20/2019	03/20/2024
DOL	DOL		FRANK BENEDETTO		19 CATLIN AVE JAMESTOWN NY 14701	09/17/2018	09/17/2023
DOL	DOL		FRANK BENEDETTO		C/O F & B PAINTING CONTRA 2 PARKVIEW AVENUE HARRISON NY 10604	09/26/2016	09/26/2021
DOL	DOL	*****4722	FRANK BENEDETTO AND CHRISTOPHER J MAINI	B & M CONCRETE	19 CAITLIN AVE JAMESTOWN NY 14701	09/17/2018	09/17/2023
DOL	NYC		FRANK MAINI		1766 FRONT ST YORKTOWN HEIGHTS NY 10598	01/17/2018	01/17/2023
DOL	NYC	*****6616	G & G MECHANICAL ENTERPRISES, LLC.		1936 HEMPSTEAD TURNPIKE EAST MEDOW NY 11554	11/29/2019	11/29/2024
DOL	DOL		GABRIEL FRASSETTI			04/10/2019	04/10/2024
DOL	DOL		GEOFF CORLETT		415 FLAGGER AVE #302 STUART FL 34994	10/31/2018	10/31/2023
DOL	DA		GEORGE LUCEY		150 KINGS STREET BROOKLYN NY 11231	01/19/1998	01/19/2998
DOL	DOL		GIGI SCHNECKENBURGER		261 MILL RD EAST AURORA NY 14052	05/29/2019	05/29/2024
DOL	DOL		GIOVANNI LAFACE		8531 OSWEGO RD BALDWINSVILLE NY 13027	02/03/2020	01/09/2023
DOL	NYC	*****3164	GLOBE GATES INC	GLOBAL OVERHEAD DOORS	405 BARRETTO ST BRONX NY 10474	05/31/2018	05/31/2023
DOL	NYC		GREAT ESTATE CONSTRUCTION, INC.		327 STAGG ST BROOKLYN NY 11206	10/10/2017	10/10/2022
DOL	DOL		GREGORY S. OLSON		P.O BOX 100 200 LATTA BROOK PARK HORSEHEADS NY 14845	03/08/2018	03/08/2023
DOL	DOL		HANS RATH		24 ELDOR AVENUE NEW CITY NY 10956	02/03/2020	02/03/2025
DOL	NYC	*****3228	HEIGHTS ELEVATOR CORP.		1766 FRONT ST YORKTOWN HEIGHTS NY 10598	01/17/2018	01/17/2023
DOL	DOL	*****5131	INTEGRITY MASONRY, INC.	M&R CONCRETE	722 8TH AVE WATERVLIET NY 12189	06/05/2018	06/05/2023
DOL	DOL		IRENE KASELIS		32 PENNINGTON AVE WALDWICK NJ 07463	05/30/2019	05/30/2024
DOL	DOL	*****9211	J. WASE CONSTRUCTION CORP.		8545 RT 9W ATHENS NY 12015	03/09/2021	03/09/2026

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DOL	DOL		J.A. HIRES CADWALLADER		P.O BOX 100 200 LATTA BROOK PARKHORSEHEADS NY 14845	03/08/2018	03/08/2023
DOL	DOL		JAMES C. DELGIACCO		722 8TH AVE WATERVLIET NY 12189	06/05/2018	06/05/2023
DOL	DOL		JAMES LIACONE		9365 WASHINGTON ST LOCKPORT IL 60441	07/23/2018	07/23/2023
DOL	DOL		JAMES RACHEL		9365 WASHINGTON ST LOCKPORT IL 60441	07/23/2018	07/23/2023
DOL	DOL	*****5368	JCH MASONRY & LANDSCAPING INC.		35 CLINTON AVE OSSINING NY 10562	09/12/2018	09/12/2023
DOL	NYC		JENNIFER GUERRERO		1936 HEMPSTEAD TURNPIKE EAST MEADOW NY 11554	11/29/2019	11/29/2024
DOL	DOL		JESSICA WHITESIDE		C/O BRRESTORATION NY INC 140 ARCADIA AVENUEOSWEGO NY 13126	09/12/2016	09/12/2021
DOL	AG		JOHN ANTHONY MASSINO		36-49 204TH STREET BAYSIDE NY 11372	02/07/2018	02/07/2023
DOL	DOL		JOHN F. CADWALLADER		200 LATTA BROOK PARK HORSEHEADS NY 14845	03/08/2018	03/08/2023
DOL	DOL	*****4612	JOHN F. CADWALLADER, INC.	THE GLASS COMPANY	P.O BOX 100 200 LATTA BROOK PARKHORSEHEADS NY 14845	03/08/2018	03/08/2023
DOL	DOL		JOHN GOCEK		14B COMMERCIAL AVE ALBANY NY 12065	11/14/2019	11/14/2024
DOL	DOL		JOHN WASE		8545 RT 9W ATHENS NY 12015	03/09/2021	03/09/2026
DOL	AG	*****0600	JOHNCO CONTRACTING, INC.		36-49 204TH STREET BAYSIDE NY 11372	02/07/2018	02/07/2023
DOL	DOL		JON E DEYOUNG		261 MILL RD P.O BOX 296EAST AURORA NY 14052	05/29/2019	05/29/2024
DOL	DOL		JORI PEDERSEN		415 FLAGER AVE #302STUART FL 34994	10/31/2018	10/31/2023
DOL	DOL		JOSE CHUCHUCA		35 CLINTON AVE OSSINING NY 10562	09/12/2018	09/12/2023
DOL	NYC		JOSEPH FOLEY		66-05 WOODHAVEN BLVD. STE 2REGO PARK NY 11374	04/20/2017	04/20/2022
DOL	DOL	*****9273	JOSEPH M LOVETRO		P O BOX 812 BUFFALO NY 14220	08/09/2016	08/09/2021
DOL	NYC		JOSEPH MARTINO		1535 RICHMOND AVENUE STATEN ISLAND NY 10314	12/13/2017	12/13/2022
DOL	DOL		JOY MARTIN		2404 DELAWARE AVE NIGARA FALLS NY 14305	09/12/2018	09/12/2023
DOL	DOL		JULIUS AND GITA BEHREND		5 EMES LANE MONSEY NY 10952	11/20/2002	11/20/3002
DOL	DOL	*****5062	K R F SITE DEVELOPMENT INC		375 LAKE SHORE DRIVE PUTNAM VALLEY NY 10579	01/23/2017	01/23/2022
DOL	NYC		K.S. CONTRACTING CORP.		29 PHILLIP DRIVE PARSIPPANY NJ 07054	02/13/2017	02/13/2022
DOL	DOL		KARIN MANGIN		796 PHELPS ROAD FRANKLIN LAKES NJ 07417	12/01/2020	12/01/2025
DOL	DOL		KATE E. CONNOR		7088 INTERSTATE ISLAND RD SYRACUSE NY 13209	03/31/2021	03/31/2026
DOL	DOL		KATIE BURDICK		2238 BAKER RD GILLET PA 16923	03/12/2018	03/12/2023
DOL	DOL	*****2959	KELC DEVELOPMENT, INC		7088 INTERSTATE ISLAND RD SYRACUSE NY 13209	03/31/2021	03/31/2026
DOL	DOL		KENNETH FIORENTINO		375 LAKE SHORE DRIVE PUTNAM VALLEY NY 10579	01/23/2017	01/23/2022
DOL	DOL	*****3490	L & M CONSTRUCTION/DRYWALL INC.		1079 YONKERS AVE YONKERS NY 10704	08/07/2018	08/07/2023
DOL	DA	*****8816	LAKE CONSTRUCTION AND DEVELOPMENT CORPORATION		150 KINGS STREET BROOKLYN NY 11231	08/19/1998	08/19/2998
DOL	DOL	*****4505	LARAPINTA ASSOCIATES INC		29 MAPLEWOOD DRIVE BINGHAMTON NY 13901	02/21/2017	02/21/2022
DOL	DOL		LAVERN GLAVE		161 ROBYN RD MONROE NY 10950	01/30/2018	01/30/2023
DOL	DOL	*****4388	LEN.J CONSTRUCTION, LLC		PO BOX 10007 ALBANY NY 12201	06/24/2016	09/19/2022
DOL	DOL	*****4388	LEN.J CONSTRUCTION, LLC		PO BOX 10007 ALBANY NY 12201	06/24/2016	09/19/2022
DOL	DOL	*****4388	LEN.J CONSTRUCTION, LLC		PO BOX 10007 ALBANY NY 12201	09/19/2017	09/19/2022

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DOL	DOL	*****4388	LEN.J CONSTRUCTION, LLC		PO BOX 10007 ALBANY NY 12201	09/19/2017	09/19/2022
DOL	DOL	*****4388	LEN.J CONSTRUCTION, LLC		PO BOX 10007 ALBANY NY 12201	01/17/2017	09/19/2022
DOL	DOL	*****4388	LEN.J CONSTRUCTION, LLC		PO BOX 10007 ALBANY NY 12201	09/19/2017	09/19/2022
DOL	DOL	*****4388	LEN.J CONSTRUCTION, LLC		PO BOX 10007 ALBANY NY 12201	09/19/2017	09/19/2022
DOL	DOL	*****4388	LEN.J CONSTRUCTION, LLC		PO BOX 10007 ALBANY NY 12201	08/14/2017	09/19/2022
DOL	DOL		LEROY NELSON JR		PO BOX 10007 ALBANY NY 12201	09/19/2017	09/19/2022
DOL	DOL		LEROY NELSON JR		PO BOX 10007 ALBANY NY 12201	09/19/2017	09/19/2022
DOL	DOL		LEROY NELSON JR		PO BOX 10007 ALBANY NY 12201	09/19/2017	09/19/2022
DOL	DOL		LEROY NELSON JR		PO BOX 10007 ALBANY NY 12201	09/19/2017	09/19/2022
DOL	DOL		LEROY NELSON JR		PO BOX 10007 ALBANY NY 12201	08/14/2017	08/14/2022
DOL	DOL		LEROY NELSON JR		PO BOX 10007 ALBANY NY 12201	01/17/2017	09/19/2022
DOL	DA	*****4460	LONG ISLAND GLASS & STOREFRONTS, LLC		4 MANHASSET TRL RIDGE NY 11961	09/06/2018	09/06/2023
DOL	AG	*****4216	LOTUS-C CORP.		81-06 34TH AVENUE APT. 6EJACKSON HEIGHTS NY 11372	02/07/2018	02/07/2023
DOL	DOL		LOUIS A. CALICCHIA		1223 PARK ST. PEEKSKILL NY 10566	05/17/2021	05/17/2026
DOL	NYC		LUBOMIR PETER SVOBODA		27 HOUSMAN AVE STATEN ISLAND NY 10303	12/26/2019	12/26/2024
DOL	NYC		M & L STEEL & ORNAMENTAL IRON CORP.		27 HOUSMAN AVE STATEN ISLAND NY 10303	12/26/2019	12/26/2024
DOL	DOL		M ANVER BEIG		142 EAST MARKET STREET LONG BEACH NY 11561	03/07/2017	03/07/2022
DOL	DOL		M. ANVER BEIG		142 EAST MARKET STREET LONG BEACH NY 11561	03/07/2017	03/07/2022
DOL	DOL	*****1784	MADISON AVE CONSTRUCTION CORP		39 PENNY STREET WEST ISLIP NY 11795	11/02/2016	11/02/2021
DOL	DOL	*****2196	MAINSTREAM SPECIALTIES, INC.		11 OLD TOWN RD SELKIRK NY 12158	02/02/2021	02/02/2026
DOL	DA		MANUEL P TOBIO		150 KINGS STREET BROOKLYN NY 14444	08/19/1998	08/19/2998
DOL	DA		MANUEL TOBIO		150 KINGS STREET BROOKLYN NY 11231	08/19/1998	08/19/2998
DOL	NYC		MAREK FABIJANOWSKI		50 MAIN ST WHITE PLAINS NY 10606	01/04/2019	01/04/2024
DOL	NYC		MARTINE ALTER		1010 NORTHERN BLVD. GREAT NECK NY 11021	03/09/2017	03/09/2022
DOL	DOL		MARVIN A STURDEVANT		29 MAPLEWOOD DRIVE BINGHAMTON NY 13901	02/21/2017	02/21/2022
DOL	DOL		MASONRY CONSTRUCTION, INC.		442 ARMONK RD MOUNT KISCO NY 10549	06/12/2018	06/12/2023
DOL	DOL	*****3333	MASONRY INDUSTRIES, INC.		442 ARMONK RD MOUNT KISCO NY 10549	06/12/2018	06/12/2023
DOL	NYC		MATINA KARAGIANNIS		97-18 50TH AVE CORONA NY 11368	04/19/2018	04/19/2023
DOL	DOL		MATTHEW P. KILGORE		4156 WILSON ROAD EAST TABERG NY 13471	03/26/2019	03/26/2024
DOL	DOL		MAURICE GAWENO		442 ARMONK RD MOUNT KISCO NY 10549	06/12/2018	06/12/2023
DOL	DOL	*****6416	MCCALL MASONRY		P O BOX 304 SAYRE PA 18840	08/09/2016	08/09/2021
DOL	DOL		MCLEAN "MIKKI BEANE"		1229 JAMES STREET SYRACUSE NY 13203	05/02/2017	05/02/2022
DOL	DOL		MCLEAN "MIKKI" DRAKE		1229 JAMES STREET SYRACUSE NY 13203	05/02/2017	05/02/2022
DOL	DOL		MCLEAN M DRAKE-BEANE		1229 JAMES STREET SYRACUSE NY 13203	05/02/2017	05/02/2022
DOL	DOL	*****9445	MCLEAN M WALSH	ELITE PROFESSION AL PAINTING OF CNY	1229 JAMES STREET SYRACUSE NY 13203	05/02/2017	05/02/2022

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DOL	DOL	*****9445	MCLEAN M WALSH	ELITE PROFESSIONAL PAINTING OF CNY	1229 JAMES STREET SYRACUSE NY 13203	05/02/2017	05/02/2022
DOL	DOL		MICHAEL LENIHAN		1079 YONKERS AVE UNIT 4YONKERS NY 10704	08/07/2018	08/07/2023
DOL	AG		MICHAEL RIGLIETTI		31 BAY ST BROOKLYN NY 11231	03/28/2018	03/28/2023
DOL	DOL	*****4829	MILESTONE ENVIRONMENTAL CORPORATION		704 GINESI DRIVE SUITE 29MORGANVILLE NJ 07751	04/10/2019	04/10/2024
DOL	NYC	*****9926	MILLENNIUM FIRE PROTECTION, LLC		325 W. 38TH STREET SUITE 204NEW YORK NY 10018	11/14/2019	11/14/2024
DOL	NYC	*****0627	MILLENNIUM FIRE SERVICES, LLC		14 NEW DROP LNE 2ND FLOORSTATEN ISLAND NY 10306	11/14/2019	11/14/2024
DOL	NYC	*****3826	MOVING MAVEN OF NY, INC.		1010 NORTHERN BLVD. GREAT NECK NY 11021	03/09/2017	03/09/2022
DOL	NYC	*****3550	MOVING MAVEN, INC		1010 NORTHERN BLVD. GREAT NECK NY 11021	03/09/2017	03/09/2022
DOL	AG		MSR ELECTRICAL CONSTRUCTION CORP.		31 BAY ST BROOKLYN NY 11231	03/28/2018	03/28/2023
DOL	DOL		MUHAMMAD BEIG		142 EAST MARKET STREET LONG BEACH NY 11561	03/07/2017	03/07/2022
DOL	DOL		MUHAMMAD BEIG		142 EAST MARKET STREET LONG BEACH NY 11561	03/07/2017	03/07/2022
DOL	NYC		MUHAMMED A. HASHEM		524 MCDONALD AVENUE BROOKLYN NY 11218	09/17/2020	09/17/2025
DOL	DA	*****9786	NATIONAL INSULATION & GC CORP		180 MILLER PLACE HICKSVILLE NY 11801	12/12/2018	12/12/2023
DOL	NYC		NICHOLAS FILIPAKIS		7113 FORT HAMILTON PARKWA BROOKLYN NY 11228	12/09/2016	12/09/2021
DOL	DOL	*****7429	NICOLAE I. BARBIR	BESTUCCO CONSTRUCTION, INC.	444 SCHANTZ ROAD ALLEN TOWN PA 18104	09/17/2020	09/17/2025
DOL	DOL	*****6966	NORTH COUNTRY DRYWALL AND PAINT		23167 COUNTY ROUTE 59 DEXTER NY 13634	10/24/2016	10/24/2021
DOL	DOL	*****0065	NORTHEAST LANDSCAPE AND MASONRY ASSOC		3 WEST MAIN ST/SUITE 208 ELMSFORD NY 10523	01/23/2017	01/23/2022
DOL	DOL	*****1845	OC ERECTERS, LLC A/K/A OC ERECTERS OF NY INC.		1207 SW 48TH TERRACE DEERFIELD BEACH FL 33442	01/16/2018	01/16/2023
DOL	NYC	*****0818	ONE TEN RESTORATION, INC.		2366 61ST ST BROOKLYN NY 11204	12/15/2016	12/15/2021
DOL	NYC		PARESH SHAH		29 PHILLIP DRIVE PARSIPPANY NJ 07054	02/13/2017	02/13/2022
DOL	DOL		PAULINE CHAHALES		935 S LAKE BLVD MAHOPAC NY 10541	03/02/2021	03/02/2026
DOL	NYC	*****9422	PELIUM CONSTRUCTION, INC.		22-33 35TH ST. ASTORIA NY 11105	12/30/2016	12/30/2021
DOL	DOL		PETER M PERGOLA		3 WEST MAIN ST/SUITE 208 ELMSFORD NY 10523	01/23/2017	01/23/2022
DOL	DOL		PETER STEVENS		11 OLD TOWN ROAD SELKIRK NY 12158	02/02/2021	02/02/2026
DOL	DOL		PIERRE LAPORT		224 COUNTY HIGHWAY 138 BROADALBIN NY 12025	03/07/2017	03/07/2022
DOL	DOL	*****1543	PJ LAPORT FLOORING INC		224 COUNTY HIGHWAY 138 BROADALBIN NY 12025	03/07/2017	03/07/2022
DOL	NYC	*****5771	PMJ ELECTRICAL CORP		7113 FORT HAMILTON PARKWA BROOKLYN NY 11228	12/09/2016	12/09/2021
DOL	DOL	*****0466	PRECISION BUILT FENCES, INC.		1617 MAIN ST PEEKSKILL NY 10566	03/03/2020	03/03/2025
DOL	NYC	*****4532	PROFESSIONAL PAVERS CORP.		66-05 WOODHAVEN BLVD. REGO PARK NY 11374	04/20/2017	04/20/2022
DOL	DA	*****6817	QUADRANT METAL BUILDINGS LLC		2740 SW MARTIN DOWNS BLVD PALM CITY FL 34990	08/25/2016	08/25/2021
DOL	NYC		RASHEL CONSTRUCTION CORP		524 MCDONALD AVENUE BROOKLYN NY 11218	09/17/2020	09/17/2025
DOL	DOL	*****1068	RATH MECHANICAL CONTRACTORS, INC.		24 ELDOR AVENUE NEW CITY NY 10956	02/03/2020	02/03/2025
DOL	DOL	*****2633	RAW POWER ELECTRIC CORP		3 PARK CIRCLE MIDDLETOWN NY 10940	01/30/2018	01/30/2023

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DOL	AG	*****7015	RCM PAINTING INC.		69-06 GRAND AVENUE 2ND FLOORMASPETH NY 11378	02/07/2018	02/07/2023
DOL	DOL		REGINALD WARREN		161 ROBYN RD MONROE NY 10950	01/30/2018	01/30/2023
DOL	DA		RIANN MULLER		2740 SW MARTIN DOWNS BLVD PALM CITY FL 34990	08/25/2016	08/25/2021
DOL	DOL	*****9148	RICH T CONSTRUCTION		107 WILLOW WOOD LANE CAMILLUS NY 13031	11/13/2018	11/13/2023
DOL	DOL		RICHARD MACONE		8617 THIRD AVE BROOKLYN NY 11209	09/17/2018	09/17/2023
DOL	DOL		RICHARD REGGIO		1617 MAIN ST PEEKSKILL NY 10566	03/03/2020	03/03/2025
DOL	DOL	*****9148	RICHARD TIMIAN	RICH T CONSTRUCTI ON	108 LAMONT AVE SYRACUSE NY 13209	10/16/2018	10/16/2023
DOL	DOL		RICHARD TIMIAN JR.		108 LAMONT AVE SYRACUSE NY 13209	10/16/2018	10/16/2023
DOL	DOL		RICHARD TIMIAN JR.		108 LAMONT AVE SYRACUSE NY 13209	11/13/2018	11/13/2023
DOL	DOL		ROBBYE BISSEsar		89-51 SPRINGFIELD BLVD QUEENS VILLAGE NY 11427	01/11/2003	01/11/3003
DOL	DOL		ROBERT A. VALERINO		3841 LANYARD COURT NEW PORT RICHEY FL 34652	07/09/2019	07/09/2024
DOL	DOL		ROBERT BRUNO		3 GAYLORD ST AUBURN NY 13021	11/15/2016	11/15/2021
DOL	DOL		ROBERT BRUNO		5 MORNINGSIDE DRIVE AUBURN NY 13021	05/28/2019	05/28/2024
DOL	NYC		ROBERT HOHMAN		149 FIFTH AVE NEW YORK NY 10010	12/29/2016	12/29/2021
DOL	DOL		RODERICK PUGH		404 OAK ST SUITE 101SYRACUSE NY 13203	07/23/2018	07/23/2023
DOL	DOL	*****4880	RODERICK PUGH CONSTRUCTION INC.		404 OAK ST SUITE 101SYRACUSE NY 13203	07/23/2018	07/23/2023
DOL	DOL		ROMEO WARREN		161 ROBYN RD MONROE NY 10950	01/30/2018	01/30/2023
DOL	DOL		RONALD MESSEN		14B COMMERCIAL AVE ALBANY NY 12065	11/14/2019	11/14/2024
DOL	DOL		ROSEANNE CANTISANI			06/12/2018	06/12/2023
DOL	DOL		RYAN ALBIE		21 S HOWELLS POINT ROAD BELLPORT NY 11713	02/21/2017	02/21/2022
DOL	DOL	*****3347	RYAN ALBIE CONTRACTING INC		21 S HOWELLS POINT ROAD BELLPORT NY 11713	02/21/2017	02/21/2022
DOL	DOL	*****1365	S & L PAINTING, INC.		11 MOUNTAIN ROAD P.O BOX 408MONROE NY 10950	03/20/2019	03/20/2024
DOL	DOL	*****7730	S C MARTIN GROUP INC.		2404 DELAWARE AVE NIAGARA FALLS NY 14305	09/12/2018	09/12/2023
DOL	DOL		SALVATORE A FRESINA			08/26/2016	08/26/2021
DOL	DOL		SAM FRESINA			08/26/2016	08/26/2021
DOL	NYC	*****0349	SAM WATERPROOFING INC		168-42 88TH AVENUE APT.1 AJAMAICA NY 11432	11/20/2019	11/20/2024
DOL	NYC		SANDEEP BOPARAI		185-06 56TH AVE FRESH MEADOW NY 11365	10/17/2017	10/17/2022
DOL	DOL	*****9751	SCW CONSTRUCTION		544 OLD ROUTE 23 ACRE NY 12405	02/14/2017	02/14/2022
DOL	NYC	*****6597	SHAIRA CONSTRUCTION CORP.		421 HUDSON STREET SUITE C5NEW YORK NY 10014	02/20/2019	02/20/2024
DOL	DOL	*****1961	SHANE BURDICK	CENTRAL TRAFFIC CONTROL, LLC.	2238 BAKER ROAD GILLET PA 16923	03/12/2018	03/12/2023
DOL	DOL		SHANE BURDICK		2238 BAKER ROAD GILLET PA 16923	03/12/2018	03/12/2023
DOL	DOL		SHANE NOLAN		9365 WASHINGTON ST LOCKPORT IL 60441	07/23/2018	07/23/2023
DOL	DOL		SHULEM LOWINGER		11 MOUNTAIN ROAD 28 VAN BUREN DRMONROE NY 10950	03/20/2019	03/20/2024

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DOL	DOL	*****0816	SOLAR ARRAY SOLUTIONS, LLC		9365 WASHINGTON ST LOCKPORT IL 60441	07/23/2018	07/23/2023
DOL	DOL	*****2221	SOUTH BUFFALO ELECTRIC, INC.		1250 BROADWAY ST BUFFALO NY 14212	02/03/2020	02/03/2025
DOL	DOL	*****3496	STAR INTERNATIONAL INC		89-51 SPRINGFIELD BLVD QUEENS VILLAGE NY 11427	08/11/2003	08/11/3003
DOL	DOL	*****6844	STEAM PLANT AND CHX SYSTEMS INC.		14B COMMERCIAL AVENUE ALBANY NY 12065	11/14/2019	11/14/2024
DOL	DOL	*****9933	STEED GENERAL CONTRACTORS, INC.		1445 COMMERCE AVE BRONX NY 10461	05/30/2019	05/30/2024
DOL	DOL		STEFANOS PAPASTEFANOU, JR. A/K/A STEVE PAPASTEFANOU, JR.		256 WEST SADDLE RIVER RD UPPER SADDLE RIVER NJ 07458	05/30/2019	05/30/2024
DOL	DOL	*****9751	STEPHEN C WAGAR		544 OLD ROUTE 23 ACRE NY 12405	02/14/2017	02/14/2022
DOL	DOL		STEVE TATE		415 FLAGER AVE #302STUART FL 34994	10/31/2018	10/31/2023
DOL	NYC		STEVEN GOVERNALE		601 PORTION RD RONKONKOMA NY 11779	11/18/2016	11/18/2021
DOL	DOL		STEVEN MARTIN		2404 DELWARE AVE NIAGARA FALLS NY 14305	09/12/2018	09/12/2023
DOL	DOL		STEVEN TESTA		50 SALEM STREET - BLDG B LYNNFIELD MA 01940	01/23/2017	01/23/2022
DOL	NYC	*****5863	SUKHMANY CONSTRUCTION, INC.		185-06 56TH AVE FRESH MEADOW NY 11365	10/17/2017	10/17/2022
DOL	DOL	*****1060	SUNN ENTERPRISES GROUP, LLC		370 W. PLEASANTVIEW AVE SUITE 2.329HACKENSACK NJ 07601	02/11/2019	02/11/2024
DOL	DOL	*****8209	SYRACUSE SCALES, INC.		158 SOLAR ST SYRACUSE NY 13204	01/07/2019	01/07/2024
DOL	DOL		TALAILA OCAMPA		1207 SW 48TH TERRACE DEERFIELD BEACH FL 33442	01/16/2018	01/16/2023
DOL	DOL		TERRY THOMPSON		11371 RIDGE RD WOLCOTT NY 14590	02/03/2020	02/03/2025
DOL	DOL		TEST		P.O BOX 123 ALBANY NY 12204	05/20/2020	05/20/2025
DOL	DOL	*****6789	TEST1000		P.O BOX 123 ALBANY NY 12044	03/01/2021	03/01/2026
DOL	DOL	*****5570	TESTA CORP		50 SALEM STREET - BLDG B LYNNFIELD MA 01940	01/23/2017	01/23/2022
DOL	DOL	*****5766	THE COKER CORPORATION	COKER CORPORATION	2610 SOUTH SALINA ST SUITE 14SYRACUSE NY 13205	12/04/2018	12/04/2023
DOL	DOL	*****5766	THE COKER CORPORATION	COKER CORPORATION	2610 SOUTH SALINA ST SUITE 14SYRACUSE NY 13205	09/17/2020	09/17/2025
DOL	DOL	*****3453	TORCHIA'S HOME IMPROVEMENT		10153 ROBERTS RD SAUQUOIT NY 13456	08/09/2016	08/09/2021
DOL	DOL	*****8311	TRIPLE B FABRICATING, INC.		61 WILLETT ST. PASSAIC NJ 07503	10/26/2016	10/26/2021
DOL	DOL	*****6392	V.M.K CORP.		8617 THIRD AVE BROOKLYN NY 11209	09/17/2018	09/17/2023
DOL	DOL	*****6418	VALHALLA CONSTRUCTION, LLC.		796 PHLEPS ROAD FRANKLIN LAKES NJ 07417	12/01/2020	12/01/2025
DOL	NYC	*****7361	VIABLE HOLDINGS, INC.	MOVING MAVEN	1010 NORTHERN BLVD. GREAT NECK NY 11021	03/09/2017	03/09/2022
DOL	DOL		VICTOR ALICANTI		42-32 235TH ST DOUGLSTON NY 11363	01/14/2019	01/14/2024
DOL	NYC		VIKTAR PATONICH		2630 CROPSY AVE BROOKLYN NY 11214	10/30/2018	10/30/2023
DOL	DOL		VIKTORIA RATH		24 ELDOR AVENUE NEW CITY NY 10956	02/03/2020	02/03/2025
DOL	NYC		VITO GARGANO		1535 RICHMOND AVE STATEN ISLAND NY 10314	12/13/2017	12/13/2022
DOL	NYC	*****3673	WALTERS AND WALTERS, INC.		465 EAST AND THIRD ST MT. VERNON NY 10550	09/09/2019	09/09/2024
DOL	DOL		WAYNE LIVINGSTON JR	NORTH COUNTRY DRYWALL AND PAINT	23167 COUNTY ROUTE 59 DEXTER NY 13634	10/24/2016	10/24/2021
DOL	DOL	*****3296	WESTERN NEW YORK CONTRACTORS, INC.		3841 LAYNARD COURT NEW PORT RICHEY FL 34652	07/09/2019	07/09/2024
DOL	DOL		WHITE PLAINS CARPENTRY CORP		442 ARMONK RD	06/12/2018	06/12/2023
DOL	DOL		WILLIAM C WATKINS		1229 JAMES STREET SYRACUSE NY 13203	05/02/2017	05/02/2022

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DOL	DOL		WILLIAM DEAK		C/O MADISON AVE CONSTR CO 39 PENNY STREETWEST ISLIP NY 11795	11/02/2016	11/02/2021
DOL	DOL	*****4043	WINDSHIELD INSTALLATION NETWORK, INC.		200 LATTA BROOK PARK HORSEHEADS NY 14845	03/08/2018	03/08/2023
DOL	DOL	*****4730	XGD SYSTEMS, LLC	TDI GOLF	415 GLAGE AVE #302STUART FL 34994	10/31/2018	10/31/2023
DOL	DOL	*****7345	YES SERVICE AND REPAIRS CORPORATION		145 LODGE AVE HUNTINGTON STATION NY 11476	08/09/2016	08/09/2021
DOL	NYC		ZAKIR NASEEM		30 MEADOW ST BROOKLYN NY 11206	10/10/2017	10/10/2022
DOL	NYC	*****8277	ZHN CONTRACTING CORP		30 MEADOW ST BROOKLYN NY 11206	10/10/2017	10/10/2022

SECTION I
COMPLIANCE WITH THE LABOR LAW
AND OTHER DEPARTMENT OF LABOR REGULATIONS

The Contractor shall comply with the applicable provisions of the "Labor Law" as amended, of the State of New York. This Contract shall be void unless applicable sections of said Labor Law are complied with. Each and every provision of law and clause required by law to be part of this Contract shall be deemed to be included herein and this Contract shall be read and enforced as though it were included herein, and if through mere mistake or otherwise any such provision is not included, then upon the application of either party hereto, the Contract shall forthwith be physically amended to make such inclusion.

Specifically, section 200-e, of the Labor Law, as so amended, prohibits in contracts, discrimination on account of race, creed, color, or national origin in employment of citizens upon public works.

There may be deduced from the amount payable to the Contractor by the Owner under this Contract a Penalty of five (\$5.00) dollars for each person for each calendar day during which such person was discriminated against or intimidated in violation of Section 200-e; provided, that for a second or any subsequent violation of the provisions of said paragraph, his Contract may be canceled or terminated by the Owner and all monies due or to become due hereunder may be forfeited.

SECTION J

INSURANCE REQUIREMENTS BY THE TOWN OF NORTH SALEM FROM CONTRACTORS

Contractor shall furnish a certificate of insurance prior to commencing work evidencing:

- A. **Worker's Compensation and Employer's Liability Policy**, covering operations in New York State.
- B. **Comprehensive General Liability Policy**, with limits of no less than \$1,000,000/\$3,000,000 Bodily Injury and Property Damage, and including coverage for:
 - I. Products/Completed Operations
 - II. Independent Contractors
 - III. Explosive, collapse and underground loses (x.c.u.)
 - IV. Contractual Liability (covering Hold Harmless attached)
 - V. Broad Form Property damage liability (including completed operations)
 - VI. Personal Injury including hazards, I, II, III
 - VII. The Town of North Salem shall be named as an "Additional Insured" on the Policy and the certificate of insurance shall show this as to the liability coverage on the certificate.
- C. **Comprehensive Automobile Policy**, with limits no less than \$1,000,000 Bodily Injury and Injury and Property Damage liability including coverage for owned, non-owned, and hired private passenger and commercial vehicles.
- D. **Umbrella Excess Liability Policy**, with limits no less than \$5,000,000 each occurrence.
- E. **Owner's Protective Liability Policy**, with limits no less than \$1,000,000 shall be taken out and maintained during the life of this contract which will proceed the owner from claims for damages for personal injury, liability, accidental or wrongful death, as well as property damage which may arise from operations under this contract whether such operations be by himself or by any subcontractor or by anyone directly or indirectly employed by either party.
- F. **Property Insurance**, Fire, Extended Coverage, Vandalism, and theft (or special Form) – Builder's Risk, Completed Value form written for full insurable value less foundations, excavation, concrete walls, masonry walls and underground utilities.
- G. **Contractor's Equipment**: the Contractor shall insure all equipment, tools, portable enclosures and vehicles owned, leased or used by them and shall evidence coverage with a certificate of insurance. The Contractor shall hold the Owner harmless for any loss or damage to such equipment, tools, etc.

H. Insurance Covering Special Hazards: the following special hazards shall be covered by the Commercial General Liability Insurance and the Umbrella Liability Insurance: Pollution Liability and Environmental Impairment Liability.

I. All Policies and Certificates of Insurance of the Contractor shall contain the following clause:

- a) Insurers shall have no right to recovery or subrogation against the Owner, Architect, and Construction Manager (including its employees and other agencies), it being the intention of the parties that the insurance policies so affected shall protect both parties should be primary coverage for any and all losses covered by the above-described insurance.

J. Certificates shall provide that thirty (30) days written notice, by registered mail with return receipts requested, prior to cancellation or expiration be given to the Town of North Salem. Policies that lapse and/or expire during term of work shall be recertified and received by the Town of North Salem no less than thirty (30) days prior to expiration or cancellation.

The Contractor shall furnish to the Town of North Salem Certificates of Insurance for A, B(I), B (III), C and D above, as evidence of coverage prior to signing of contract.

The cost of furnishing the above insurance shall be borne by the Contractor, there will be no direct payment for this work. Cost will be deemed to have been included in the price id for all scheduled items. The Contractor shall require all subcontractors to provide this same insurance coverage.

Contractor's Signature

Date

Print Name and Title

SECTION L NON-DISCRIMINATION CLAUSE

During the performance of the Contract, the Contractor agrees as follows:

- a. The Contractor will not discriminate against any employee or applicant for employment because of race, creed, color, or national origin, and will take affirmative action to insure that they are afforded equal employment opportunities without discrimination because of race, creed, color, or national origin. Such action shall be taken with reference, but not limited to: recruitment, employment, job assignment, promotion, upgrading, demotion, transfer, layoff or termination, rates of pay or other forms of compensation, and selection for training or retraining, including apprenticeship and on-the-job training.
- b. The Contractor will send to each labor union or representative of workers with which he has or is bound by a collective bargaining or other agreement or understanding, a notice, to be provided by the Commission of Human Rights, advising such labor union or representative of the Contractor's agreement under clauses "a." through "h." hereinafter called "non-discrimination clauses", and requesting such labor union or representative to agree in writing, whether in such collective bargaining or other agreement or understanding or otherwise, that such labor union or representative will not discriminate against any member or applicant for membership because of race, creed, color, or national origin, and will take affirmative action to insure that they are afforded equal membership opportunities without discrimination because of race, creed, color, or national origin. Such action shall be taken with reference, but not be limited to: recruitment, employment, job assignment, promotion, upgrading, demotion, transfer, layoff or termination, rates of pay, or other forms of compensation, and selection for training or retraining including apprenticeship and on-the-job training. Such notice shall be given by the Contractor, and such written agreement shall be made by such labor union or representative, prior to the commencement of performances of this contract. If such labor union or representative fails or refuses so to agree in writing, the Contractor shall promptly notify the Commission for Human Rights of such failure or refusal.
- c. The Contractor will post and keep posted in conspicuous places, available to employees and applicants for employment, notices to be provided by the Commission for Human Rights setting forth the substance of the provisions of clauses "a." and "b." and such provisions of the State's Laws against discrimination as the Commission for Human Rights shall determine.
- d. The Contractor will state, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, that all qualified applicants will be afforded equal employment opportunities without discrimination because of race, creed, color, or national origin.
- e. The Contractor will comply with the provisions of Sections 291-299 of the Executive Law and the Civil Rights Law, will furnish all information and reports deemed necessary by the Commission for Human Rights under these non-discrimination clauses and such sections of the Executive Law, and will, permit access to his books, records, and accounts by the Commission of Human Rights, and Owner representatives/counsel for purposes of

investigation to ascertain compliance with these non-discrimination clauses and such sections of the Executive Law and Civil Rights Law.

- f. The Contract may be forthwith canceled, terminated, or suspended in whole or in part, by the contracting agency upon the basis of a finding made by the Commission of Human Rights that the Contractor has not complied with these non-discrimination clauses, and the Contractor may be declared ineligible for future contracts made by or on the behalf of the Owner/Contracting Agency until he satisfied the Commission for Human Rights that he has established and is carrying out a program in conformity with the provisions of these non-discrimination clauses. Such finding shall be made by the Commission for Human Rights after conciliation efforts by the Commission have failed to achieve compliance with these non-discrimination clauses and after a verified complaint has been filed with the Commission, notice thereof has been given to the Contractor and an opportunity has been afforded him to be heard publicly before three members of the Commission. Such sanctions may be imposed and remedies otherwise provided by law.
- g. If this Contract is canceled or terminated under clause "f.", in addition to other rights of the Owner provided in this contract upon its breach by the Contractor, the Contractor will hold the Owner harmless against any additional expenses or costs incurred by the Owner in completing the work or in purchasing the services, materials, equipment, or supplies contemplated by this contract, and the Owner may withhold payments from the Contractor in an amount sufficient for this purpose and recourse may be had against the surety on the performance bond if necessary.
- h. The Contractor will include the provisions of clauses "a.", through "g." in every subcontract or purchase order in such a manner that such provisions will be binding upon each subcontractor or vendor as to operations to be performed within jurisdictional locale of the Project being contracted by the Owner. The Contractor will take such action in enforcing such provisions of such subcontract or purchase as the Owner/Contracting Agency may direct, including sanctions or remedies for noncompliance. If the Contractor becomes involved in or is threatened with litigation with a subcontractor or vendor as a result of such direction by the Contracting Agency/Owner, the Contractor shall promptly so notify the Owner's representatives/counsel, requesting him to intervene and protect the interests of the Owner (Contracting Agency's jurisdictional area).

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SECTION M
GENERAL CONDITIONS

Note: The headings of the articles herein are intended for the convenience or reference only and shall not be considered as having any bearing on their interpretation.

PART I

101 DEFINITIONS

Whenever used in any of the Contract Documents, the following meanings shall be given to the terms herein defined:

- a. The term "Contract" means the Contract executed by the Owner and the Contractor.
- b. The term "Owner" means the municipality which is authorized to undertake this Contract.
- c. The term "Contractor" means a person, firm or corporation entering into the Contract with the Owner to perform and complete the work involved in this Contract.
- d. The term "Subcontractor" means a person, firm or corporation supplying labor and materials or only labor for work at the site of the project for, and under separate contract or agreement with the Contractor.
- e. The term "Project Area" means the area shown on the drawings in the immediate vicinity of the work, unless otherwise defined in the Special Conditions. No private property is included unless the Owner has obtained an easement.
- f. The term "Engineer" or "Professional" means the person in charge, serving the Owner with engineering services, his successor, or any other person or persons, employed by said
- g. Owner for the purpose of administering the work embraced in this Contract, the said Engineer acting directly or indirectly through any Assistant.
- h. The term "Contract Documents" means and shall include the Documents listed in Article 3 of the Agreement.
- i. The term "Drawings" or "Contract Drawings" means the drawings listed in the Schedule of Drawings.
- j. The term "Technical Specifications" or "Supplemental Technical Specifications" means that part of the Contract Documents which describes, outlines and stipulates, the quality of materials to be furnished; the quality of workmanship required; measurement and payment.
- k. The term "Addendum" or "Addenda" means any changes, revisions or clarifications of the Contract Documents which have been duly issued by the Owner to prospective Bidders prior to the time of receiving Bids.

102 SUPERINTENDENCE BY CONTRACTOR

- a. Except where the Contractor is an individual and gives his personal superintendence to the work, the Contractor shall provide a competent superintendent, satisfactory to the Owner, for the work at all times during working hours with full authority to act for him.

The Contractor shall also provide an adequate staff for the proper coordination and expediting of his work. Should, in the opinion of the Owner, any language barrier exist between the superintendent and the Owner, the Contractor will employ a qualified interpreter.

- b. The Contractor shall lay out his own work including all survey required and he shall be responsible for all work executed by him under the Contract. He shall verify all figures, elevations, etc. before proceeding with the work and will be held responsible for any error resulting from his failure to do so.

103 SUBCONTRACTS

- a. The Contractor shall not execute an agreement with any Subcontractor or permit any Subcontractor to perform any work included in this Contract until he has received written approval of such Subcontractor from the Owner.
- b. The Contractor shall not execute an agreement with any Subcontractor or permit any Subcontractor to perform any work included in this Contract until he has submitted a Statement of Non-Collusion from the Subcontractor on the form shown in the "Bid Proposal" and has received written approval of such Subcontractor from the Owner. Unless specifically permitted otherwise, the Contractor shall perform with his own organization and with the assistance of workmen under his immediate superintendence work amounting to not less than 50 percent of the original total Contract value for the project, exclusive of specialty items not commonly found in contracts for similar work or which require highly specialized knowledge, craftsmanship or equipment, not ordinarily available in the organization of Contractors performing work of the character embraced in this Contract. Specialty items, if any, shall be specified elsewhere.
- c. The Contractor shall be as fully responsible to the Owner for the acts and omissions of his Subcontractors, and of persons either directly or indirectly employed by them, as he is for the acts and omissions of persons directly employed by him. All Subcontractors must have adequate superintendence on the work site when they are performing work.
- d. The Contractor shall cause appropriate provision to be inserted in all Subcontracts relative to the work to require compliance by each Subcontractor with the applicable provisions of the Contract for the work embraced in this Contract.
- e. Nothing contained in the Contract shall create any contractual relation between any Subcontractor and the Owner.

104 OTHER CONTRACTS

The Owner reserves the right to let other contracts in connection with this work or to perform work related to this project with his own forces. The Contractor shall offer other Contractors and the Owner reasonable opportunity for the introduction and storage of their materials and the execution

of their work, and shall properly connect and/or coordinate his work with theirs. The Contractor shall cooperate fully with such other Contractors, by scheduling his own work with that to be performed under other Contracts as may be directed by the Owner. The Contractor shall not permit or commit any act which will interfere with the performance of work by any other Contractor as scheduled.

Wherever work being done by the Owner's forces, or other Contractors is contiguous to work covered by this contract, the respective rights of the various interests involved shall be established by the Owner, to secure the completion of the various portions of the work in general harmony.

If any part of the Contractor's work depends for proper execution or results upon the work of others, the Contractor shall inspect and promptly report to the Engineer in writing any defects or deficiencies in such work that render it unsuitable for such proper execution and results.

105 RESPONSIBILITIES OF CONTRACTOR

Except as otherwise specifically stated in the Contract Documents the Contractor shall provide and pay for all materials, labor, tools, equipment, water, light, heat, power, transportation, superintendence, temporary construction of every nature, charges, levies, fees or other expenses and all other services and facilities of every nature whatsoever necessary for the performance of the Contract and to complete this Contract in every respect within the specified time.

106 FITTING AND COORDINATION OF THE WORK

The Contractor shall be responsible for the proper fitting of all work and for the coordination of the operations of all trades, Subcontractors or Materialmen engaged upon this Contract. He shall be prepared to guarantee to each of his Subcontractors the locations and measurements which they may require for the fitting of their work to all surrounding work. The Contractor shall, at his own expense, effect all cutting, fitting, or patching of his work required to make the same conform to the Contract Drawings and specifications and, except with consent of the Owner, not to cut or otherwise alter the work of any other Contractor.

107 MUTUAL RESPONSIBILITY OF CONTRACTOR

If, through acts or neglect on the part of the Contractor, any other Contractor or Subcontractor shall suffer loss or damage on the work, the Contractor shall settle with such other Contractor or Subcontractor by agreement or arbitration, if such other Contractor or Subcontractor will so settle. If such other Contractor or Subcontractor shall assert any claim against the Owner on account of any damage alleged to have been so sustained, the Owner will notify the Contractor, who shall defend at his own expense any suit based upon such claim, and, in any judgment or claim and pay all costs and expenses, in connection therewith and will in all other respects, including, but not limited to attorney's fees and court costs, hold harmless the Owner and Engineer.

108 ASSIGNMENT OR NOVATION

The Contractor shall not assign or transfer, whether by an assignment or novation, any of its rights, duties, benefits, obligations, liabilities or responsibilities under this Contract without the written consent of the Owner; provided, however, that assignments to banks, trust companies, or other financial institutions may be made without the consent of the Owner. No assignment or novation of this Contract shall be valid unless the assignment or novation expressly provides that the assignment of any of the Contractor's rights or benefits under the Contract is subject to a prior lien for labor performed, services rendered and materials, tools and equipment supplied for the performance of the work under this contract in favor of all persons, firms or corporations rendering such labor or services or supplying such materials, tools or equipment.

109 PROGRESS SCHEDULE

The Contractor shall submit within seven (7) calendar days after execution of the Agreement, a carefully prepared realistic Progress Schedule showing the proposed dates of starting and completing of each and every item of work on each and every section of work in accordance with these Specifications if applicable to this specific Contract. The Progress Schedule shall include as a minimum:

1. The project name, number, and geographic location.
2. The Contract time, Contract beginning date, and ending date.
3. The time of beginning and completion of each significant phase of this Contract.

The initial requisition will not be approved for payment until said schedule is submitted. Said schedule will be revised or updated monthly unless otherwise permitted by the Owner. No monthly payments will be approved without a revised/updated monthly Progress Schedule approved by the Owner.

The Progress Schedule shall show the plan of construction and the proposed method of carrying out this work including a full statement of the equipment to be used.

110 COMMUNICATIONS

- a. All notices, demands, requests, instructions, approvals, proposals and claims must be in writing.
- b. Any notice to or demand upon the Contractor shall be sufficiently given if delivered at the office of the Contractor stated on the signature page of the Agreement (or at such other office as the Contractor may from time to time designate) in a sealed, postage-prepaid envelope or delivered with charges prepaid to any telegraph company for transmission, each case addressed to such office.
- c. All papers required to be delivered to the Owner shall, unless otherwise specified in writing to the Contractor, be delivered to the Town of North Salem, Town Hall, Route

116, North Salem, NY 10560 and any notice to or demand upon the Owner shall be sufficiently given if so delivered, or if deposited, in the United States mail in a sealed, postage-prepaid envelope, or delivered with charges prepaid to any telegraph company for transmission to said Owner at such address as the Owner may subsequently specify in writing to the Contractor for such purpose.

- d. Any such notice shall be deemed to have been given as of the time of actual delivery or (in case of mailing) when the same should have been received in due course of post, or in the case of telegrams, at the time of actual receipt, as the case may be.

111 PAYMENTS TO CONTRACTOR

1. Partial Payments

- a. The Engineer shall prepare an estimate of the work performed for partial payment as of a mutually agreed upon date at least 30 days after beginning of work, and approximately every 30 days thereafter. The amount of the payment due the Contractor shall be determined by adding the total value of work completed to date and deducting (1) five percent (5%) of the total amount, to be retained until final payment and (2) the amount of all previous payments. The total value of work completed to date shall be based on the estimated quantities of work completed and on the unit prices, if any, contained in the Agreement.

There will be no payments or partial payments to the Contractor for materials purchased and stored/stockpiled on the project site.

- b. Monthly or partial payments made by the Owner to the Contractor are moneys advanced for the purpose of assisting the Contractor to expedite the work of construction. All materials and completed work covered by such monthly or partial payments shall remain the property of the Contractor and he shall be responsible for the care and protection of all materials and work upon which payments have been made. Such payments shall not constitute a waiver of the right of the Owner to require the fulfillment of all terms of the Contract and the delivery of all improvements in this Contract complete and satisfactory to the Owner in all details.

2. Final Payment

- a. After final inspection and acceptance by the Owner of all work under the Contract, the Contractor shall prepare his requisition for final payment which shall be based upon the carefully measured or computed quantity of each item of work at the applicable unit prices stipulated in the Agreement. The total amount of the final payment due the Contractor under this Contract shall be the amount computed without retainage, less all previous payments. Final payment to the Contractor shall be made subject to his furnishing the Owner with a release in satisfactory form of all claims against the Owner arising under and by virtue of his Contract, other than such claims, if any, as may be specifically excepted by the Contractor from the operation of the release as provided elsewhere herein.
- b. The Owner, before paying the final estimate, will require the Contractor to furnish releases

or receipts from all Subcontractors having performed any work and all persons having supplied materials, equipment (installed on the Project) and services to the Contractor; the Owner deems this necessary in order to protect its interest. The Owner, however, may if it deems such action advisable, make payment in part or in full to the Contractor without requiring the furnishing of such releases or receipts, any payment so made shall in no way impair the obligations of any surety or sureties furnished under this Contract.

- c. If it was necessary for the Owner to expend money for labor, materials or equipment on this project because the Contractor failed to perform satisfactorily or promptly, and a bill for such sum remains unpaid, the Owner may deduct this sum from partial payments or the final payment. Furthermore, if the specifications provide for certain work to be done by the Owner with the fee or cost to be borne by the Contractor, and a bill for such services remains unpaid, the Owner may deduct this sum from the partial or the final payment.
- d. Withholding of any amount due the Owner under the section entitled "LIQUIDATED DAMAGES" shall be deducted from the final payment due the Contractor. At the Owner's option, liquidated damages may be deducted from any partial payment.

3. Withholding Payments

Notwithstanding the above, the Owner may withhold from any payment otherwise due the Contractor so much as may be necessary to protect the Owner and if it so elects may also withhold any amounts due from the Contractor to any Subcontractors or material dealers, for work performed or material furnished by them. The foregoing provisions shall be construed solely for the benefit of the Owner and will not require the Owner to determine or adjust any claims or disputes between the Contractor and his Subcontractors or material dealers, or to withhold any moneys for their protection unless the Owner elects to do so. The failure or refusal of the Owner to withhold any moneys from the Contractor shall in no way impair the obligations of any surety or sureties under any bond or bonds furnished under this Contract.

4. Payments Subject to Submission of Certificates

Each payment to the Contractor by the Owner shall be made subject to submission by the Contractor of all written certifications required of him and his Subcontractors by the section entitled "CONTRACTOR'S CERTIFICATES" under the GENERAL CONDITIONS.

112 CHANGES IN THE WORK

- a. The Owner may make changes in the work required to be performed by the Contractor under the Contract by making additions thereto, or by omitting work there from, without invalidating the Contract.
- b. Except for the purpose of affording protection against any emergency endangering life or property, the Contractor shall make no change in the materials used or in the specified manner of constructing and/or installing the improvements or supply additional labor, services or materials beyond that actually required for the execution of the Contract, unless in pursuance of a written order from the Owner authorizing the Contractor to proceed with the change. No claim for an adjustment of the Contract price will be valid unless so

ordered.

- c. The Contractor agrees to perform any of the aforementioned changed work, along with all other required work found under the Contract, without delay and in accordance with good construction practices.
- d. These changes outlined above may be made without relieving or releasing the Contractor from any of his obligations under the Contract provisions, and without affecting the validity of the guaranty bonds and without relieving or releasing the surety or sureties of said bonds. All such work shall be executed under the terms of the original Contract unless it is provided otherwise.
- e. All adjustments to the Contract payment provisions will be made in accordance with the following paragraphs.
- f. If applicable unit prices are contained in the Agreement (established as a result of either a Unit Price Bid or a Supplemental Schedule of Unit Prices), the Owner may order the Contractor to proceed with desired changes in the work, the value of such changes to be determined by the measured quantities involved and the applicable unit prices specified in the Contract. Payment of unit price overruns, due to change order, may be withheld until Owner Approval is obtained.
- g. If applicable unit prices are not contained in the Agreement, the Owner shall, before ordering the Contractor to proceed with desired changes, request an itemized proposal from him covering the work involved in the change after which the procedure shall be as follows:
 - 1. If the change in the work involves additional work, the procedure shall be as follows:
 - a) If the proposal is acceptable, the Owner will prepare the Change Order in accordance therewith for acceptance by the Contractor, or
 - b) If the proposal is not acceptable and prompt agreement between the two parties cannot be reached, the Owner may order the Contractor to proceed with the work on a Cost-Plus Basis. A Cost-Plus Basis is defined as the net cost of the work to the Contractor plus an allowance to cover overhead and profit as stipulated below:
“Net Cost of the Work” is defined as (1) gross cost of labor plus (2) net cost of materials plus (3) gross cost of equipment.
(1) “Gross cost of labor” is defined as net cost of labor plus fringe benefits.
“Net cost of labor” is defined as the cost of required labor based on the prevailing rates established by the State Labor Department and stated in the Contract Document. No part of any salary for employees above the grade of foreman, and having general supervision of this work, will be included in this item.
“Fringe Benefits” are defined as all insurances, taxes and other benefits for the employee required by law or by union contract. In lieu of an item-by-item determination of the actual value of such fringe benefits, all fringe benefits are hereby determined to total an amount of 50% of net cost of labor, and the Contractor in submitting his bid agrees that this percentage shall be used, regardless of whether actual fringe benefits are more or less than this amount.

- (2) "Net cost of materials" shall be defined as the cost of all materials incorporated in the work, including delivery charges, less any allowable cash discounts, as shown by receipted bills.
- (3) "Gross cost of equipment" is defined as the "net cost of equipment" plus an allowance of 10% for fuel and lubricants.

"Net cost of equipment" shall be defined as a rental rate which is reasonable and based on rental rates prevailing in the area where the work is to be done. Such rental rate shall be negotiated, and shall be agreed upon in writing before the work is begun. However, in no case shall the rental exceed the rates set forth in the current edition of the "Associated Equipment Distributors Compilation of Rental Rates for Construction Equipment".

The cost of furnishing small tools and accessories and materials used for construction but not incorporated in the work shall be considered as part of the Contractor's overhead, and shall not be included in the "net cost of the work".

An allowance of 15% will be added for overhead and profit and is hereby stipulated to be in lieu of an actual determination of overhead and profit. The Contractor in submitting his bid agrees that this allowance shall be used, regardless of whether actual overhead and profit is more or less than this amount.

No percentage for overhead and profit shall be added to the amounts of equipment rental prices agreed upon, but the price agreed upon shall be the total compensation allowed for use of such equipment.

2. If the change in the work requires a reduction in the work involved, the procedure shall be as follows:

- a. If the proposal is acceptable, the Owner will prepare the Change Order in accordance therewith for acceptance by the Contractor; or
- b. If the proposal is not acceptable and prompt agreement between the two parties cannot be reached, the Engineer shall fix the cost value of the credit. The Owner may then order the Contractor to proceed with the work. Should the Contractor disagree with the cost value of the credit as fixed by the Engineer, he may appeal the same in accordance with the procedures outlined in the GENERAL CONDITIONS, "ARBITRATION".

h. Each Change Order shall include in its final form:

1. A detailed description of the change in the work.
 2. The Contractor's proposal (if any) or a confirmed copy thereof.
 3. A definite statement as to the resulting change in the Contract price and/or time.
 4. The statement that the change order is subject to the approval of the Town Board.
- i. Contractor shall not take advantage of any obvious error in the specifications or any such error in the drawings or other Contract Documents. Any obvious error or discrepancy in or between any of the Contract Documents shall be immediately reported to the Engineer who shall make such corrections and interpretations as may be deemed necessary for the

completion of the work in a satisfactory and acceptable manner.

113 CLAIMS FOR EXTRA COST

- a. All claims between the parties, including all claims for additional compensation and/or additional time, arising out of, or in any way related to this Contract and/or the performance of the same, or its interpretation, shall within ten (10) days of the event, or action giving rise to the claim be presented to the Engineer. All papers pertaining to claims shall be filed in quadruplicate. Such notice need not detail the amount of the claim but shall state the facts surrounding the claim in sufficient detail to identify the claim, together with its character and scope. In the meantime, the Contractor shall proceed with the work as directed. Any claim not presented within the time limit specified in this paragraph shall be deemed to have been waived, except that if the claim is not given within ten (10) days of its commencement, the claim will be considered only for a period commencing ten (10) days prior to the receipt by the Engineer of notice thereof. The Contractor shall in no case allow any claim or dispute to delay the work.
- b. As soon as practicable after the final submission of all information the Owner shall make a determination of any claim. Said decision of the Owner shall be a condition precedent to any further action on the claim. However, upon certification in writing by the claimant that the claim has been submitted in its final form, the Owner shall be obliged to render a decision on said claim within sixty (60) days of the date of said certification. Should the Owner fail to render its decision within the aforementioned sixty (60) day period, its decision will not be a condition precedent to any further action on the part of the claimant.
- c. There shall be no added compensation paid for delay to the Contractor unless the Owner causes said delay by a material breach of Contract, and compliance with the foregoing notice provisions shall be a condition precedent to the prosecution of any such claim. In any claim for delay except for "Excusable Delays and Extensions of Time" as defined in the GENERAL CONDITIONS SECTION "TERMINATION: DELAYS AND EXTENSIONS; LIQUIDATED DAMAGES" wherein it is alleged that the Contractor's equipment was caused to remain idle, only one half of the prevailing rental rates for use of said equipment will be considered as damages for idled equipment in order to allow for the absence of fair wear and tear, which is allowed for in prevailing rental rates for equipment usage.
- d. Claims for additional compensation for extra work, due to alleged errors in ground elevations, contour lines, or bench marks, will not be considered unless accompanied by certified survey data, made prior to the time the original ground was disturbed, clearly showing that errors exist which resulted, or would result, in handling more material or performing more work, than would be reasonable estimated from the Drawings and maps issued.
- e. If, on the basis of the available evidence, the Owner determines that an adjustment of the Contract Price and/or Time is justifiable, the procedure shall be as provided in Sections - "CHANGES IN THE WORK" or "TERMINATIONS; DELAYS AND EXTENSIONS; LIQUIDATED DAMAGES" of the GENERAL CONDITIONS.

- f. In the event of an unfavorable decision by the Owner, the Contractor shall have the right to contest said decision as provided for under the provisions of the Contract.

114 NO OPTIONS PAID

It shall be clearly understood that there will be no payment for materials incorporated into the work (other than that shown on the Contract Drawings or specified) unless ordered by the Engineer.

115 TIME AND MATERIALS WORK NOTIFICATION

Should the Contractor perform work in accordance with the GENERAL CONDITIONS, "CHANGES IN THE WORK", he shall give a minimum of 24 hours advance written notice prior to his anticipated beginning any work on a Cost-Plus Basis, to the Owner and specifically the Engineer.

116 TERMINATION: DELAYS AND EXTENSIONS: LIQUIDATED DAMAGES

A. Termination of Contract

For its own convenience the Owner may, at any time prior to the issuance of a Notice to Proceed, void the Contract by giving unequivocal and unconditional written notice of such avoidance to the Contractor and in the event of such avoidance the Owner will not be liable to the Contractor for any claims or losses, including anticipated loss of profit and moneys expended in anticipation of performance under the Contract.

At any time subsequent to the Notice to Proceed the Owner may, at its own convenience, terminate the Contract by giving unequivocal and unconditional written notice of such termination to the Contractor. In the event of such termination by the Owner, the Owner shall be responsible to the Contractor for the following moneys only, which moneys shall be subject to legitimate charges of the Owner against the Contractor:

1. All reasonable cost incurred by the Contractor in performance of or in anticipation of performance of the Contract provided the Contractor shall take all reasonable steps to mitigate such damages including the return and/or resale of materials ordered; and
2. On Lump Sum projects, a markup of 10% for profit and 10% for overhead on the reasonable cost of the work that is completed and in place in accordance with the Contract Drawings and Specifications will be allowed. On unit price Contracts, allowances for profit and overhead shall be considered to have been included in each of the Contractor's original unit price Bid. The Contractor shall remain responsible for the work completed, in accordance with the Contract provisions.

Should any work under this Contract be subject to, or terminated by the action of any third party, governmental unit or court due to any ecological or other reason, the rights of the Contractor to recover from the Owner shall be determined as set forth above.

The Owner may give notice in writing to the Contractor and his Surety of any material breach of the Contract by the Contractor to include but not be limited to any of the following:

1. Failure to begin the work under the Contract within the time specified.
2. Failure to perform the work with sufficient workmen, equipment or materials to ensure the prompt completion of said work.
3. Unsuitable performance of the work or failure to perform anew such work as shall be rejected as defective and unsuitable.
4. Neglecting or refusing to remove material rejected as defective and unsuitable.
5. Discontinuing the suitable prosecution of the work for a period of 72 hours, excluding Sundays and holidays without written authorization of the Engineer.
6. Failure to commence discontinued work within 48 hours after notice to resume (excluding Sundays and holidays).
7. Becoming insolvent or declared bankrupt or commits any act of bankruptcy or insolvency.
8. Allowing a final judgment to stand against him unsatisfied for a period of ten (10) calendar days.
9. Making any assignment for the benefit of creditors.
10. Violating any covenants contained in the Contract Documents.
11. Failure to eliminate unsafe conditions within 12 hours.

The Contractor or Surety within a period of ten (10) calendar days after such notice shall take all practical action to correct said material breach. Should said action fail to meet with the approval of the Owner, the Owner may, at its discretion, order the Surety to complete the work or, without violating the Contract, take the prosecution of the work out of the hands of said Contractor and Surety.

The Owner may appropriate or use any or all materials and equipment on the ground as may be suitable and acceptable and may enter into an agreement, either by negotiation or public letting, for the completion of said contract according to the terms and provisions thereof, or use such other methods or combinations thereof, as in its opinion shall be required or desirable for the completion of said Contract in an acceptable manner. All costs and charges incurred by the Owner together with the cost of completing the work under Contract, shall be deducted from any moneys due or which may become due said Contractor. In case such expense shall exceed the sum which would have been payable under the Contract, then the Contractor and the Surety shall be liable and shall pay to the Owner the amount of said excess.

B. Excusable Delays and Extensions of Time

The right of the Contractor to proceed shall not be terminated nor shall the Contractor be charged with liquidated damages for any delays in the completion of the work due:

1. To any acts of the Government, including controls or requisitioning of materials, equipment, tools, or by labor by reason of war, National Defense, or any other national emergency.
2. To any acts of the Owner, caused by injunction or litigation against said Owner, by a third party.
3. To causes not reasonably foreseeable by the parties to this Contract at the time of the execution of the Contract which are beyond the control and without the fault or negligence of the Contractor, including, but not restricted to, acts of God or of the public enemy, acts of another Contractor, in the performance of some other Contract with the Owner, fires, floods, epidemics, quarantine, restrictions, strikes, freight embargoes, and weather of unusual severity such as hurricanes, tornadoes, cyclones and other extreme weather conditions; and
4. To any delay of any Subcontractor occasioned by any of the causes specified in subparagraphs 1, 2 and 3 of this paragraph "B".

Provided, however, that the Contractor promptly notify Owner with ten (10) days in writing of the cause of the delay. Upon receipt of such notification, the Owner shall ascertain the facts and the cause and extent of delay. If, upon the basis of the facts and the terms of this Contract, the delay is properly excusable, the Owner shall extend the time for completing the work for a period of time commensurate with the period of excusable delay.

No claim for damages or any claim other than for an extension of time as herein provided shall be made or asserted against the Owner by reason of any delay.

C. Liquidated Damages For Delay

If the work is not completed within the time stipulated in Section -TIME OF COMPLETION under SPECIAL CONDITIONS, including any extensions of time for excusable delays as herein provided, the Contractor shall pay to the Owner as fixed, agreed, and as liquidated damages (it being impossible to determine the actual damages occasioned by the delay) for each calendar day of delay, until the work is completed, the amount as set forth in Section - LIQUIDATED DAMAGES under SPECIAL CONDITIONS and the Contractor and his sureties shall be liable to the Owner for the amount thereof. Neither permission given by the Owner for the Contractor to continue the work after the time fixed for completion, nor the inspection and acceptance of such work, shall be deemed a waiver on the part of the Owner of any of his rights under this contract.

117 ENGINEER'S AUTHORITY

The Engineer will decide all questions which may arise in relation to the work and the construction thereof. The Engineer's estimates and decisions shall be final and conclusive, except as herein otherwise expressly provided. In case any question shall arise between the parties hereto relative to said Contract, the determination or decision of the Engineer shall be a condition precedent to the right of the Contractor to receive any money or payment for work under this Contract affected in any manner or to any extent by such question.

118 TECHNICAL SPECIFICATIONS AND CONTRACT DRAWINGS

Anything mentioned in the Technical Specifications and not shown on the Contract Drawings or shown on the Contract Drawings and not mentioned in the Technical Specifications shall be of like effect as if shown on or mentioned in both. In case of difference between the Contract Drawings and Technical Specifications, the matter shall be immediately submitted to the Owner without whose decision said discrepancy shall not be adjusted by the Contractor, save only at his own risk and expense. Therefore, the worse case scenario with the highest cost will be considered included on the bid.

119 REQUESTS FOR SUPPLEMENTARY INFORMATION

It shall be the responsibility of the Contractor to make timely requests of the Owner for any additional information not already in his possession which should be furnished by the Owner under the terms of this Contract, and which he will require in the planning and execution of the work. Such requests may be submitted from time to time as the need is approached, but each shall be filed in ample time to permit appropriate action to be taken by all parties involved so as to avoid delay. Each request shall be in writing, and list the various items and latest date by which each will be required by the Contractor. The first list shall be submitted within two (2) weeks after Contract award and shall be as complete as possible at that time. The Contractor shall, if requested, furnish promptly any assistance and information the Engineer may require in responding to these requests of the Contractor. The Contractor shall be fully responsible for any delay in his work or to others arising from his failure to comply fully with the provisions of this Section.

120 SHOP DRAWINGS

Shop drawings are required for all manufactured items. In the case of reinforced concrete, details or reinforcing bars and form construction and materials shall be submitted in the same manner as shop drawings.

- a. All required shop drawings, machinery details, layout drawings, working drawings, material and equipment descriptions, etc., shall be submitted to the Engineer in three (3) copies for review sufficiently in advance of requirements to afford ample time for checking, including time for correcting, resubmitting, rechecking if necessary. Two (2) weeks should be allowed for checking from the date of receipt by the Engineer. The Contractor, with the approval of the Engineer, may submit manufacturer's literature as a substitute for, or supplement to, the shop drawings, etc. The minimum size for any submission shall be 8 1/2 x 11" and the maximum size shall be 24" x 36".
- b. No construction, purchase, delivery, installation or work shall be done or made on any part or feature of this Contract which is dependent upon shop drawing review, until such review has been received from the Engineer. If the Contractor proceeds without reviewed shop drawings, it shall be at his own risk. No claim by the Contractor, for extension of the

Contract time will be granted by reason of his failure in this respect.

- c. Shop drawings, etc., or printed matter shall give all dimensions, sizes, etc., to enable the Engineer to determine suitability of the construction, installation, material or layout for the purposes intended. Where needed for clarity, the drawings shall include outline, sectional views and detailed machine work, finish, etc., required. The drawings to be submitted shall be coordinated by the Contractor with any other drawings previously reviewed, with the design and function of any equipment or structure and the Contract Drawings.
- d. By submitting shop drawings, etc., the Contractor thereby represents that he has determined and verified all field measurements, field construction criteria, materials, catalog numbers and similar data, or will do so and that he has checked and coordinated each shop drawing, etc., with the requirements of the work and of the Contract Documents.
- e. If any drawings show variations from the requirements of the Contract because of standard shop practice and/or other reasons, the Contractor shall make specific mention of such variation in his letter of transmittal in order, that if acceptable, suitable action may be taken for proper adjustment of the Contract price and/or time; otherwise the Contractor will not be relieved of the responsibility for executing the work in accordance with the Contract even though the drawings have been reviewed.
- f. After review, the submittals will be stamped "No Exception Taken", "Make Corrections Noted", "Revise & Resubmit" or "Rejected". Two (2) prints of "No Exceptions Taken", or "Make Corrections Noted", drawings will be returned to the Contractor for his use and distribution to his suppliers and/or Subcontractors. In the case of those stamped "Resubmit" or "Rejected", two (2) prints will be returned to the Contractor who shall make all indicated corrections and resubmit (3) prints.
- g. In any submission which is noted as "No Exception Taken" or "Make Corrections Noted", the review shall not extend to details or dimensions and shall not relieve the Contractor from his responsibility for compliance with the Contract Drawings and specifications.
- h. When the Contractor proposes a revision to a previously submitted shop drawing, etc., three (3) copies shall be resubmitted for review. This resubmittal shall clearly indicate, in a revision block, the date, description and location of the revision. The letter of transmittal shall state the reasons for the revision.
- i. The Contractor shall furnish as many copies of the submittals as is necessary for the proper coordination of the work and shall maintain a complete set of the reviewed submissions at the site of the work at all times.
- j. Upon the final acceptance of the project, the Contractor shall, on request, furnish the Owner with a complete set of shop drawing tracings or reproducible cloth reproductions of the shop drawing tracings.
- k. There will be no direct payment made for any of the above submittals, or reproducible drawings if required, but the cost thereof shall be considered as included in the general cost of the work.

121 SAMPLES, CERTIFICATES AND TESTS

The Contractor shall submit all samples, materials, certified test reports, materials certificates, certificates of compliance, affidavits, etc., as called for in the Contract Documents or required by the Engineer, promptly after award of the Contract and acceptance of the Contractor's bonds. No such materials and/or equipment, etc., shall be manufactured or delivered to the site, except at the Contractor's own risk, until the required samples/certificates/tests/etc., have been approved in writing by the Engineer. Any delay in the work caused by late or improper submission of the above for approval shall not be considered just cause for an extension of the Contract time.

a. Samples

Unless otherwise specified, the Contractor shall furnish the required samples without charge, and shall provide every facility for the securing of material samples. He shall provide means and assist in the verification of all scales, measures and other devices which he operates. Samples to be submitted shall be taken by the Engineer or a laboratory approved by the Owner, unless otherwise specified. All materials being used shall be subject to resampling and testing at any time during their preparation and/or use.

All samples submitted by the Contractor shall be properly identified to include, but not be limited to, the project name, project number, item number and description of material, name of the producer, place of origin, and other detailed information which will assist the Engineer passing upon the acceptability of the sample. Certified test reports, materials certificates and/or certificates of compliance required to be submitted with the sample or if permitted in lieu of samples, shall conform to the requirements stated hereafter.

b. Certified Test Report

A certified test report shall be a document containing a list of the dimensions, chemical, metallurgical, electrical and physical results obtained from an actual test of the materials involved, and shall certify that the materials meet the requirements of the Contract Drawings and specifications, and shall also include the following information:

1. Item number and description of material
2. Date of manufacture
3. Date of testing
4. Name of organization to whom the material is consigned
5. Quantity of material represented, such as batch, lot, group, etc.
6. Means of identifying the consignment, such as label, marking, lot number, etc.
7. Date and method of shipment
8. Name of organization performing tests

The certified test report shall be signed by an authorized and responsible agent for the organization supplying the material, and it shall be notarized.

c. Materials Certificate

A material certificate shall be a document certifying that the materials, components and equipment furnished, conform to all requirements of the Contract Drawings and specifications. The document shall also include the following information:

1. Project to which the material is consigned
2. Name of Contractor to whom material is supplied
3. Item number and description of material
4. Quantity of material represented by the certificate
5. Means of identifying the consignment, such as label, marking, lot numbers, etc.
6. Date and method of shipment

d. Certificate of Compliance

A certificate of compliance shall be a document certifying that the materials, components and equipment covered by the previously submitted certified test report and materials certificate, have been installed in the work and that they conform to all the requirements of the Contract Drawings and specifications. The following information shall also be required on the document:

1. Project number
2. Item number and description of material
3. Quantity represented by the certificate
4. Name of manufacturer

The certificate of compliance shall be signed by an authorized and responsible agent for the prime Contractor, and shall be notarized.

f. Tests

Tests as required by the Specifications will be made in accordance with the latest revision to the standard method in effect at the time of bidding of the American Society of Testing Materials, the New York State Department of Transportation, and American Water Works Association, the American Society of State Highway Officials or any other organization that is recognized as an authority on a particular material unless otherwise specified on the Contract Drawings or Special Conditions. Representative preliminary samples or the material proposed for use shall be submitted, without charge by the Contractor or producer for examination and tested in accordance with specified methods. All materials being used are subject to test or rejection at any time during their preparation and use.

Materials will be rejected by the Engineer whenever, in his judgment, they fail to meet the requirements of the specifications.

The Owner reserves the right to retest all materials which have been tested and accepted at the source of supply, after the same have been delivered, and to reject all materials, which when retested, do not meet the requirements of the specifications.

g. Approval/Acceptance

Approval on any materials shall be general only and shall not constitute a waiver of the Owner's right to demand full compliance with Contract Requirements. After actual deliveries, the Engineer will have such check tests made as he deems necessary in each instance, and may reject materials and accessories for cause even though such materials and articles have been given general approval. If materials, equipment or accessories which fail to meet check tests have been incorporated in the work, the Engineer will have

the right to cause their removal and replacement by proper materials or to demand and secure such preparation by the Contractor as is equitable.

The Engineer may accept a material or combination of materials and therefore waive noncomplying test results provided that all of the following conditions are met:

1. Results of prior and subsequent series of tests of the material or materials from the same source or sources are found satisfactory.
2. The incidence and degree of nonconformance with the specification requirements are, in the Engineer's judgment within reasonable and practical limits.
3. The Contractor has diligently exercised material controls consistent with good practices in the Engineer's judgment.
4. No adverse effect on the value or serviceability of the completed work could result.

The Engineer may at his discretion waive testing of extremely minor quantities of material when such material is obtained from sources that are prevalently on test.

h. Costs

Except as otherwise specifically stated in the Contract, the costs of sampling and testing will be divided as follows:

1. The Contractor shall furnish without extra cost, including packing and delivery charges, all samples required for testing purposes, including those samples taken on the project by the Engineer. The Owner shall pay all other testing costs of said samples.
2. The Contractor shall assume all costs of retesting.
3. The Contractor shall assume all costs of testing materials offered in substitution for those found deficient or for those specified.

122 MATERIALS AND WORKMANSHIP

- a. Unless otherwise specifically provided for in the Technical Specifications, all workmanship, equipment, materials and articles incorporated in the work shall be new and the best grade of the respective kinds for the purpose. Where equipment, materials, articles or workmanship are referred to in the Technical Specifications as "equal to" any particular standard, the Engineer shall decide the question of equality.
- b. All work performed and all materials furnished shall be in conformity with the lines, grades, cross sections, dimensions and material requirements, including tolerances shown on the Contract Drawings or indicated in the Specifications.
- c. The Contractor shall furnish to the Owner for approval the manufacturer's detailed specifications for all machinery, mechanical and other special equipment, which he contemplates installing together with full information as to type, performance characteristics and all other pertinent information as required, and shall likewise submit for approval as required full information concerning all other materials or articles which he proposes to incorporate in the work. See Section - SAMPLES, CERTIFICATES AND TESTS.

d. Machinery, mechanical and other equipment, materials or articles installed or used without such prior approval shall be at the risk of subsequent rejection.

e. Materials specified by reference to the number or symbol of a specific standard, such as an ASTM Standard, a Federal Specification or other similar standard, shall comply with requirements in the latest revision thereof and any amendment or supplement thereto in effect on the date of the Invitation for Bids, except as limited to type, class or grade, or modified in such reference. The standards referred to, except as modified in the Technical Specifications, shall have full force and effect as though printed therein.

f. The Contractor shall employ only competent and skillful workers to do the work and whenever the Engineer shall notify the Contractor, in writing, that any man on the work is, in his opinion, incompetent or disorderly, the Contractor shall forthwith remove such person and shall not again employ him on any part of the work without the written consent of the Engineer.

g. The Owner may stop any work or any part of the work under the Contract if the methods or conditions are such that unsatisfactory work might result, if improper materials or workmanship is being used, or unsafe conditions exist. Any action by the Owner under this provision shall not be deemed a cause of delay and no extensions of permitted time will be granted because of such action.

h. In the event the materials furnished or the work performed deviates from the requirements of the Contract Drawings and Specifications, but in the opinion of the Owner, constitutes substantial performance, the Owner may accept the same. Should the deviation in question result in a savings to the Contractor, the Owner will be entitled to a credit in the full amount of said savings. Should the deviation in question result in an additional cost to the Contractor, the Owner will not be liable to the Contractor for such additional cost.

If the materials or the finished product in which the materials are used or the work performed are not in conformity with the Contract Drawings and Specifications and have resulted in an inferior or unsatisfactory product, the work and materials shall be removed and replaced or otherwise corrected by and at the expense of the Contractor.

123 PERMIT AND CODES

- a. The Contractor shall give all notices required by and shall observe and comply with all Federal and State laws and Local by-laws, ordinances and regulations in any manner affecting the conduct of the work, and all such orders or decrees as may exist at present and those which may be enacted later, of bodies or tribunals having any jurisdiction or authority over the work. The Contractor shall indemnify and save harmless the Owner and Engineer and all of its officers, agents and servants against any claim or liability arising from or based on the violation of any such law, by-law, ordinance, regulation, order or decree, whether by himself or his employees. All construction work and/or utility installations shall comply with all applicable ordinances and/or codes including any and all written waivers thereto.

Before commencing any work, the Contractor shall examine the Contract Drawings and Specifications for compliance with applicable ordinances, codes, etc., and shall immediately report any discrepancy to the Owner. Where the requirements of the Contract Drawings and Specifications fail to comply with such applicable ordinances, codes, etc., the Owner will adjust the Contract by Change Order to conform to such ordinances, codes, etc., (unless waivers covering the differences have been granted by the governing body or department) and make appropriate adjustment in the Contract Price.

Should the Contractor fail to observe the foregoing provisions and proceed with the construction or work and/or install any utility at variance with any applicable ordinance, code, etc., including any written waivers (notwithstanding the fact that such installation is in compliance with the Contract Drawings and Specifications), the Contractor shall remove such work without cost to the Owner, but a Change Order will be issued to cover only the excess cost the Contractor would have been entitled to receive if the change had been made before the Contractor commenced work on the items involved.

- b. Unless otherwise specified, the Contractor shall at his own expense, secure and pay to the appropriate department of the Local/State/Federal Government the fees or charges for all permits including but not limited to those required for the making of water taps and the supplying of any equipment required by the Regulations of the Consolidated Water District, Electrical Underwriters permits, and any other permits required by the regulatory body or any of its agencies.
- c. The Contractor shall comply with applicable Local/State/Federal laws, ordinances codes, etc., governing noise, the disposal of surplus excavation, materials, debris and rubbish on or off the Project Area and commit no trespass on any public or private property in any operation due to or connected with the work under this Contract.

124 CARE OF WORK

- a. The Contractor shall be responsible for the proper care and protection of all materials delivered and work performed until completion and final acceptance, whether or not the same has been covered in whole or in part by payments made by the Owner.
- b. Materials shall be stored so as to insure the preservation of their quality and fitness for the work and shall be located so as to facilitate prompt inspection. When considered necessary, they shall be place on wooden platforms or other hard, clean surfaces and not on the ground and when directed, shall be placed in weatherproof buildings.
- c. Stored materials, even though approved before storage, shall be inspected prior to their use in the work and shall meet the requirements of the specifications at the time it is proposed to use them.
- d. The Contractor shall at his sole expense and without any additional cost to the Owner provide watchmen and/or other security measures as may be reasonably required to properly protect and care for materials and work completed, and to otherwise prevent property damage and/or personal injury.
- e. In an emergency affecting the safety of life or property including adjoining property,

the Contractor, without special instructions or authorization from the Owner, is authorized to act at his discretion to prevent such threatened loss or injury, and he shall so act. He shall likewise act if instructed to do so by the Owner. Any compensation claimed by the Contractor on account of such emergency work will be determined by the Owner as provided in the Section - CHANGES IN THE WORK under GENERAL CONDITIONS.

- f. The Contractor shall avoid damage as a result of his operations to existing sidewalks, streets, curbs, pavements, utilities (except those which are to be replaced or removed), adjoining property, etc., and he shall at his own expense completely repair any damage thereto caused by his operation. If any damage is not repaired or acceptable arrangements for repair are not made within a reasonable period of time, the Commissioner may act to repair such damage by the Owner's forces or using another Contractor employed for that purpose, and the costs of such repair shall be deducted from any payment due the Contractor. If a damage claim has been referred by the Contractor to his insurance company, such referral shall in no way relieve the Contractor of his responsibilities.
- g. The Contractor shall shore up, brace, underpin, secure, and protect as may be necessary, all foundations and other parts of existing structures adjacent to, adjoining, and in the vicinity of the site, which may be in any way affected by the excavations or other operations connected with the construction of this Contract. The Contractor shall be responsible for the giving of any and all required notices to any adjoining or adjacent property owner or other party before the commencement of any work. The Contractor shall indemnify and save harmless the Owner and the Building Inspector from any damages on account of settlements or the loss of lateral support of adjoining property and from all loss or expense and all damages for which the Owner and the Building Inspector may become liable in consequence of such injury or damage to the work or adjoining and adjacent structures and/or their premises.

125 ACCIDENT PREVENTION

- a. The Contractor shall exercise proper precautions and safety measures at all times for the protection of persons and/or property and shall be responsible for all injuries and/or damages to all persons and/or property, either on or off the site, which occur as a result of his prosecution of the work under this Contract. The safety provisions of all applicable Local/State/Federal laws and building and construction codes shall be observed and the Contractor shall take or cause to be taken such additional safety and health measures as the Owner may determine to be reasonably necessary.
- b. Machinery, equipment and trucks shall be properly guarded, and operational hazards shall be eliminated in accordance with the provisions and intent of the latest revised edition of the Manual, Accident Prevention in Construction, published by the Associated General Contractors of America, to the extent that such provisions are not in contravention of applicable law. A copy of this manual shall be available for reference at all times in the Contractor's field office. The Contractor's attention is also

called to the Section - SAFETY PROVISIONS of the GENERAL CONDITIONS.

- c. The Contractor shall maintain an accurate record of all cases of death, occupational disease, and injury requiring medical attention or causing loss of time from work, arising out of and in the course of employment of the work under this Contract in accordance with the requirements of the applicable State/Local/Federal regulations. The Contractor shall promptly furnish the Owner with reports concerning these matters.
- d. The Contractor shall indemnify and save harmless the Owner and the Building Inspector from any and all claims for damages resulting from personal injury, death and/or property damage, suffered or alleged to have suffered, by any person as a result of any work conducted under this Contract. See also the Section - INDEMNITY CLAUSE of the GENERAL CONDITIONS.

126 SANITARY FACILITIES

The Contractor shall furnish, install, and maintain ample sanitary facilities for the workmen. As the needs arise, a sufficient number of enclosed temporary toilets shall be conveniently placed as required by the Health/Sanitary Codes of the Local/State/Federal Government. Drinking water shall also be provided from an approved source, so piped or transported as to keep it safe and fresh and served from single service containers or satisfactory types of sanitary drinking stands or fountains. All such facilities and services shall be furnished in strict accordance with existing and governing Health/Sanitary regulations.

127 USE OF PREMISES

- a. The Contractor shall confine his equipment, storage of materials, and construction operations to the Contract Limits as shown on the Drawings and as prescribed by ordinances or permits, or as may be described by the Owner, and shall not unreasonably encumber the site or public right-of-ways with his materials and construction equipment.
- b. The Contractor shall comply with all instructions of the Owner, Building Inspector and the ordinances, codes, etc., of the Local/State/Federal Government, regarding signs, advertising, traffic, fires, explosives, danger signals, barricades, etc.

128 REMOVAL OF DEBRIS, CLEANING, ETC.

The Contractor shall, periodically or as directed during the progress of the work, remove and legally dispose of all surplus excavated materials and debris, and keep the Project Area and public right-of-ways reasonably clear. Upon completion of the work, prior to final inspection, he shall remove all temporary construction facilities, debris and unused materials provided for the work, and restore the whole site of the work and public right-of-ways to a condition satisfactory to the

Engineer. Trash burning on the site of the work will be subject to prior approval of the Owner and existing Local/State/Federal regulations.

The cost of all required cleanup shall be included in the various prices bid under this Contract. The Contractor shall also include in the bid price the removal of snow from the project area.

129 LAYOUT OF WORK

The Contractor shall perform all layout work necessary for the satisfactory execution of the construction as shown on the Contract Drawings and all costs in connection therewith shall be included in the contract price. The Contractor shall employ competent personnel and all work shall be subject to the approval of the Engineer.

The Contractor shall be held responsible for the protecting and safe guarding of all control points and bench marks set by the Engineer and his own forces. Any replacement or reestablishment of control points or bench marks by the Engineer, shall be at the expense of the Contractor.

The required horizontal and vertical control necessary to perform this work is furnished on the Contract Drawings.

130 BLASTING

If explosives are used, all requirements for transportation, use and storage of Local/State/Federal laws and regulations must be complied with and all necessary permits and licenses obtained by the Contractor at his expense. Permits and licenses must be shown to the Engineer on request.

Explosives must be carefully transported, stored, handled and used. The Contractor will keep on the job only such quantities of explosives as may be needed for the work underway and only during such time as they are being used. Explosives shall be stored in a secure manner in locked containers and separate from all tools. Caps and detonators shall be stored separately from other explosives. When the need for explosives is ended, all such material remaining on the job shall be promptly removed from the premises. Care must be taken that no explosives, caps or detonators are stolen or get in to the hands of unauthorized persons or left unguarded where they may cause accidents.

An accurate blasting log must be maintained continuously for the duration of the Contract. The log shall record, for each shot, the location, amount of holes, depth, spacing, amount of explosive per hole, number of caps used and the exact date and time of the blast. In addition, a sketch showing displacement of direct and delay caps for each shot shall be recorded.

Explosives shall be such power and placed and used in such quantities and positions as will not make the excavation unduly large, nor shatter unnecessarily the rock upon or against which the main or structure is to be built, nor injure adjacent persons or property, those portions of the new work or structure as may already be in place or other adjacent pipes, ducts or other structures. The quantity of explosives fired at one blast must be small enough and the time for blasting selected to avoid undue annoyance to persons owning or occupying premises near the work.

The rock must be completely matted when blasts are fired to prevent damage or injury to persons or property or the scattering of broken fragments on the adjacent ground. Adequate warning shall be given all persons in the vicinity before any blast is discharged.

When blasting is required, the operation shall be conducted with such care as not to cause damage to any of the existing underground utilities. Should such occur, the cost of repairs shall be the sole responsibility of the Contractor.

When blasting for trench excavation, each shot sequence shall begin sufficiently ahead of completed work to prevent damage to the completed work which must be properly protected prior to each shot.

The provisions herein shall apply where soil formation resembles rock, whether in trench, structure or general excavation, even if it is of such a nature that it is not classified and paid for as rock excavation, and if so ordered by the Engineer, will apply to openings cut through masonry, nested boulders or other materials not herein classed as rock.

In areas where the proposed construction is built against the face of rock excavation, all loosened or shattered portions of the rock must be completely removed by barring, wedging or other approved means so the masonry can be built firmly in contact with solid rock.

The Contractor shall notify each public utility or others having structures in proximity of the site, and others who may be affected, of his intention to use explosives. Said notice shall be given in accordance with the applicable regulations therefore and sufficiently in advance to enable the involved agencies/companies/persons and the Contractor to take such steps as may be necessary to protect life and property. Such notice shall not in any way relieve the Contractor of responsibility for any damage resulting from his blasting operations.

When in sufficiently close proximity to existing gas, water, sanitary, storm or other utilities and structures and all services connected thereto, the Contractor shall remove the rock by methods other than blasting, if necessary, in order to protect said utilities and their barring wedging, jack hammer, drilling, rock, jacks or other such hand or machinery methods which will not damage the adjacent utility.

No explosive shall be brought into, stored or used on the site of any job by the Contractor unless and until he shall have furnished the Engineer with a satisfactory certificate of insurance showing that the risks arising from the presence of and use of explosives and from blasting are included with the insurance provided by the Contractor to secure his obligations to the Owner. Insurance should also cover damage to any underground utilities or other underground facilities.

131 INSPECTION/ACCEPTANCE OF THE WORK

All materials and workmanship shall be subject to inspection, examination or test by the Owner and the Engineer to determine the acceptability of the work at any and all times during manufacture or construction and at any and all places where such manufacture or construction is carried on and the Contractor shall provide proper facilities for such access and inspection. The Owner or Engineer shall have the right to reject defective material and workmanship or require its correction. The Owner or Engineer shall have the right to reject materials which have not been approved prior to incorporation in the work, and the right to reject work that has been performed without

inspection. Rejected materials shall be removed and replaced without charge. Rejected workmanship shall be corrected if possible to the Engineer's satisfaction without additional charge. If in the opinion of the Engineer correction is not feasible, or if correction has been attempted but is not satisfactory to the Engineer, the work must be removed and replaced without additional charge. If the Contractor fails to proceed at once with the correction or replacement of rejected workmanship or defective materials, the Owner may by Contract or otherwise have the defects remedied or rejected materials removed from the Project Area and charge the cost of the same against any moneys which are due or may become due the Contractor, without prejudice to any rights or remedies of the Owner.

Neither inspection, testing, approval nor acceptance of the work in whole or in part by the Owner or its agents shall relieve the Contractor or his sureties of the full responsibility for materials furnished or work performed not in strict accordance with the Contract.

The assignment of a part time inspector to this project will in no way relieve the Contractor of the requirements to comply with all of the specifications.

Where the Contractor has been directed (by the Engineer) to leave certain items of work exposed for inspection, and he fails to do so, he will be required to uncover such work, at his own expense.

132 FINAL INSPECTION

When the improvements embraced in this Contract are substantially completed, the Contractor shall notify the Owner in writing that the work will be ready for final inspection on a definite date which shall be stated in the notice. The notice will be given at least ten (10) days prior to the date stated for final inspection, and bear the signed concurrence of the representative of the Owner having charge of inspection. If the Owner determines that the status of the improvements is as represented, it will make the arrangements necessary to have final inspection commenced on the date stated in the notice, or as soon thereafter as is practicable. The inspection party may also include the representative of the Federal Agency, other Governmental Agencies and representatives of each department of the Owner having charge of improvements of like character when such improvements are later to be accepted by the Owner.

133 INSURANCE

The insurance requirements for this Contract are specified in Section J of these documents.

134 WARRANTY OF TITLE

No material, supplies or equipment incorporated or to be incorporated in the work shall be purchased subject to any chattel mortgage or under a conditional sale or other agreement by which an interest therein or in any part thereof is retained by the seller or supplier. The Contractor shall warrant good title to all materials, supplies and equipment installed or incorporated in the work

and upon completion of all work, shall deliver to same together with all improvements and appurtenances constructed or placed thereon by him to the Owner free from any claims, liens or charges. Neither the Contractor, nor any person, firm or corporation furnishing any material or labor for any work covered by this Contract, shall have any right to a lien upon any improvement or appurtenance thereon. Nothing contained in this paragraph, however, shall defeat or impair the right of person furnishing materials or labor to recover under any law permitting such persons to look to funds due the Contractor in the hands of the Owner. The provisions of this paragraph shall be inserted in all Subcontracts and material Contracts and notice of its provisions shall be given to all persons furnishing materials for the work when no formal Contract is entered into for such materials.

135 GENERAL GUARANTEE

Neither the final certificate of payment nor any provision in the Contract nor partial or entire use of the improvements embraced in this Contract by the Owner or the public shall constitute an acceptance of work not done in accordance with any Contract or relieve the Contractor of liability in respect to any express warranties or responsibility for faulty materials or workmanship. The Contractor shall promptly remedy any defects in the work and pay for any damage to other work resulting there from which shall appear within a period of two (2) years from the date of final payment. If any work is done under the guarantee and maintenance provisions, the guarantee and maintenance bond shall be extended with respect to such repair or replacement work for a period of two (2) years from the date the maintenance work was completed.

136 NO ARBITRATION

All claims, counterclaims, disputes and other matters in question between the Owner and the Contractor, not otherwise resolved, arising out of or relating to this agreement or its breach shall be decided in a court of competent jurisdiction. The Owner and the Contractor hereby agree that there shall be no requirement for arbitration of any controversies or disputes hereunder, all such matters to be resolved at law.

137 RISK OF LOSS

The Owner assumes no responsibility for the condition of existing buildings and structures and other property on the Project Area nor for their continuance in the condition existing at the time of issuance of the Invitation for Bids or thereafter. No adjustment of Contract Price or allowance for any change in conditions which may occur after the Invitation for Bids has been issued will be made except as provided for herein.

138 REQUIRED PROVISIONS DEEMED INSERTED

Each and every provision of law and clause required by law to be inserted in this Contract shall be deemed to be inserted herein and the Contract shall be read and enforced as though it were included herein, and if through mistake or otherwise any such provision is not inserted, or is not correctly inserted, then upon the application of either party the Contract shall forthwith be physically amended to make such insertion or correction.

139 CORRECTIONS

The Engineer shall have the right to correct any errors or omissions in the Contract, specifications, or Contract expression of their intent.

Such corrections shall take effect from the time that the Engineer gives notice thereof, and any alterations in the work rendered necessary thereby shall be made as corrected. Any conflict between the approved Contract Drawings and specifications, or any disagreement in measurements upon the Contract Drawings must be submitted to the Engineer before construction of the work.

140 SAFETY PROVISIONS

The safety provisions of applicable laws, building and construction codes and the safety codes approved by the State Labor Commissioner shall be observed.

The provisions of the Federal Occupational Safety and Health Administration's "Occupational Safety and Health Standards" and "Safety and Health Regulations for Construction" shall be observed.

Should at any time during the work under this Contract any Local/State/Federal safety inspector visit the site for the purpose of a safety inspection, the Contractor shall immediately notify the Engineer's representative on the job site.

141 CONNECTING TO EXISTING WORK

The Contractor shall remove such existing masonry, concrete, equipment and piping as is necessary, in order to make the proper connections to the existing work at the locations shown. Also, he shall make the necessary pipe line, roadway and other connections at the several points in order that on completion of this Contract, water, sewage, or storm water, as the case may be, will flow through the several pipe lines and structures. Unless otherwise specified herein, no extra payment will be made for this work, but the entire cost of the same shall be included in the unit or lump sum prices Bid for the various items of the work to be done under this Contract.

142 EXISTING IMPROVEMENTS

The Contractor shall conduct his work so as to minimize damage to existing improvements, except where specifically stated otherwise in the specifications or drawings; it will be the responsibility of the Contractor to restore, as nearly as practical, to their original conditions all improvements on public or private property damaged by his operations.

The utility mains, ducts, poles and services in the construction area, where shown on the Contract Drawings are at the approximate locations furnished by various utilities concerned. Whenever existing improvement information is either indicated on the drawings or supplied to the Contractor at a later date, it is understood that such information is furnished in good faith for the Contractor's convenience. The Contractor must interpret this information according to his own judgment, and must make his own determinations regarding the location of all improvements. No claim will be allowed because of incorrect or incomplete existing improvement information.

The various utility companies have been made aware of the pending construction and are generally familiar with the locations of conflicts in the case of the proposed construction. The various utility companies will make all adjustments to their own lines except where otherwise shown on the Contract Drawings or specified. The Contractor shall give ample notice to the various utilities so that existing lines can be marked in the field and adjustments made. The Contractor shall cooperate fully with the various utilities and shall plan his work so that least interference is caused for all parties concerned. No additional payments shall be made to the Contractor for delays caused by utility interference. The Contractor shall support all utility lines uncovered during excavation.

143 ACCESS TO SITE

The Contractor shall make every effort to minimize damage to all access routes, and he shall be required to restore them to their original condition. The Contractor shall acquire all necessary permits for working in, on or from public streets or right-of-ways and for securing additional access rights thereto with respect to the County and State Agencies. No Street Opening Permits will be required by the Town, but the ordinances and rules and regulations pertaining thereto are in full force and effect as if repeated herein.

All costs of the removal and restoration to original conditions of walls, fences, structures, utility lines, poles, guy wires or anchors, and other improvements required for passage for the Contractor's equipment shall be borne by the Contractor. The Contractor shall notify the proper authorities of the Owner and all utilities of any intended modification or disruption to their property prior to the start of construction and shall cooperate with them in the scheduling and performance of his operation.

If the Contractor, by direct negotiation and bargain with any land owner, lessee or tenant, has secured for himself any right to use more space or greater privileges than the space provided by the Owner, for purposes incidental to the performance of the Contract, he shall, upon request of the Engineer, furnish to the Engineer proper evidence that such additional rights have been properly secured and assurance that no damage to or claim upon the Owner will arise therefrom.

The Owner shall not be liable in any way for any expense incurred by the Contractor in securing any such right to use additional property.

The Contractor shall be responsible for reimbursing the Owner and others for any and all losses, damage or expense which the Owner and/or Local Government or those others may suffer, either directly or indirectly or through any claims of any person or party, for any trespass outside the spaces and right-of-ways provided by the Owner to the Contractor of any violation or disregard of the terms and conditions established for the use or occupancy of those rights or for negligence in the exercise of those rights.

The Owner may retain or deduct from any sum or sums due or to become due to the Contractor such amount or amounts as may be proper to insure the Owner against loss or expense by reason of the failure of the Contractor to observe the limits and conditions of the right-of-ways, rights-of-access, etc., provided by the Owner.

144 ACCESS TO ADJACENT PROPERTIES

The Contractor shall at all times maintain vehicular and pedestrian access to all properties abutting or adjacent to construction under this Contract, all at the Contractor's sole expense. In the event that normal access is cut off to a particular property due operations or proposed work called for under the Contract, the Contractor shall, at his sole expense, make other arrangements for access to said property satisfactory to the property owner, tenant and the Building Inspector.

145 USE OF ROADWAYS

During the progress of the work, the Contractor shall make ample provision for both vehicular and foot traffic on any public road, and shall indemnify and save harmless the Owner from any expense whatsoever due to his operations on/over said roadways. The Contractor shall also provide free access to all fire hydrants, water and gas valves located along the line or in the vicinity of his work. Gutters and waterways must be kept open or other provisions made for the removal of storm water. Roadway intersections may be blocked but one half at a time and the Contractor shall lay and maintain temporary driveways, bridges and crossings, such as in the opinion of the Building Inspector are necessary to reasonably accommodate the public and to provide access to private roadways. In the event of the Contractor's failure to comply with these provisions, the Owner may cause the same to be done, and will deduct the cost of such work from any moneys due or to become due the Contractor under this Contract, but the performance of such work by the Owner or at its insistence shall serve in no way to release the Contractor from his general or particular liability for the safety of the public or the work.

146 INDEMNITY CLAUSE

The Contractor agrees to protect, defend, indemnify and hold the Owner and its employees free and harmless from and against any and all losses, claims, liens, demands and cause of action of every kind and character including, but not limited to, the amount of judgments, penalties, interest, court costs, legal fees incurred by the Owner arising in favor of any party, including claims, liens, debts, personal injuries, including employees of the Owner, death or damages to property (including property of the Owner's) and without limitation by enumeration, all other claims or demand of every character occurring or in anyway incident to, in connection with or arising directly or indirectly out of the said agreement. The Contractor agrees to investigate, handle, respond to, provide defense for and defend any such claims, demand, or suit at its sole expense and agrees to bear all other costs and expenses related thereto, even if (claims, etc.) is groundless, false or fraudulent.

147 DISPUTES

- a. Any disputes between the parties arising out of, or in any way related to this Contract and/or the performance of the same, or its interpretation, shall within ten (10) days of the event or action giving rise to the dispute be presented to the Engineer. All papers pertaining to the dispute shall be filed in quadruplicate. Such notice shall state the facts surrounding the dispute in sufficient detail to identify the dispute, together with its character and scope. In the meantime, the Contractor shall proceed with the work under this Contract as directed. Any dispute not presented within the time limit specified in this paragraph shall be deemed to have been waived, except that if the dispute is of a continuing character and notice of the dispute is not given within ten (10) days of its commencement, the dispute will be considered only for a period commencing ten (10) days prior to the receipt by the Engineer of notice thereof. The Contractor shall in no case allow any dispute to delay the work under this Contract.
- b. As soon as practicable after the final submission of all information, the Owner shall make a determination of the dispute. Said decision of the Owner shall be a condition precedent to any further action on the dispute. However, upon certification in writing by the claimant that the dispute has been submitted in its final form, the Owner shall be obliged to render a decision on said dispute within sixty (60) days of the date of said certification. Should the Owner fail to render its decision within the aforementioned sixty (60) day period, its decision will not be a condition precedent to any further action on the part of the claimant.
- c. Each decision by the Owner will be in writing and will be mailed to the Contractor by registered or certified mail, return receipt requested, directed to this last known address.
- d. In the event of an unfavorable decision by the Owner, the Contractor shall have the right to contest said decision as provided for under the provision of this Contract. The Contractor shall in no case allow the dispute or decision to delay the work but shall notify the Owner promptly that he is proceeding with the work under protest and he may then except the matter in question from the final release.

148 GENERAL MUNICIPAL LAWS OF NEW YORK STATE

The attention of the Contractor is directed to the fact that all pertinent General Municipal Laws of the State of New York shall be adhered to. In addition, this Contract is subject to all New York State statutes, including but not limited to the Town Law, Highway Law, Real Property Law and Finance Law.

149 “OR EQUAL” CLAUSE UNLESS OTHERWISE SPECIFIED

Whenever a material, article or piece of equipment is identified on the Contract Drawings or in the specifications by reference to manufacturers’ or vendors’ names, trade names, catalogue numbers, etc., the intent is to establish a standard. Any material, article or equipment of other manufacturers and vendors of equally high quality (particularly with regard to points specified in the specifications) which will perform equivalently within the design ranges specified will be equally acceptable provided that the material, article or equipment so proposed is, in the opinion of the Engineer, of equal substance and function. Further, the manufacturer must agree to comply fully with the warranty requirements of the specifications. The Contractor may not assume that substitute equipment will be approved by the Engineer and non-approval of said equipment will form no basis for a claim for additional compensation by the Contractor. No substitute equipment shall be purchased or installed by the Contractor without the Engineer’s written approval. If the Engineer’s approval is obtained for alternate equipment, the structures, buildings, piping or electrical necessary to accommodate the equipment and if engineering is required due to substitution of other material, the Contractor shall reimburse the Owner for the Engineering service. The Contractor must pay for any laboratory testing required to establish the equality of his proposal.

150 CONSTRUCTION, EXCAVATION AND DEMOLITION OPERATIONS AT OR NEAR UNDERGROUND FACILITIES

The Contractor’s attention is directed to the State of New York, Department of Labor, Board of Standards and Appeals Industrial Code Rule 53 - “Construction, Excavation and Demolition Operation at or near Underground Facilities” effective April 1, 1975.

The Contractor will be required to comply with all applicable requirements of Industrial Code Rule 53.

Requests for copies by mail should be directed to State of New York, Department of Labor, Office of Public Information, State Office Building Campus, Albany, New York 11201; or, single copies may be obtained by applying in person at the Department’s office in Albany or in New York City at the Department of Labor, 345 Hudson St. #6, New York, New York 10014.

151 REVIEW BY OWNER

The Owner, its authorized representatives and agents shall, at all times have access to and be permitted to observe and review all work, material, equipment, payrolls, personnel records, employment conditions, material invoices and other relevant data and records pertaining to this Contract, provided, however, that all instructions and approval with respect to the work will be given to the Contractor only by the Owner through its authorized representative or agents.

152 DEDUCTIONS FOR UNCORRECTED WORK

If the Owner deems it not expedient to require the Contractor to correct work not done in accordance with the Contract Documents, an equitable deduction from the Contract Price will be made by agreement between the Contractor and the Owner and subject to settlement in case of dispute, as herein provided.

153 PATENTS

The Contractor shall hold and save the Owner and Engineer, their officers, and employees, harmless from liability of any nature of kind, including but not limited to court costs and attorney's fees, for or on account of, any patented or unpatented invention, process, article or appliance manufactured or used in the performance of the Contract, including its use by the Owner, unless otherwise specifically stipulated in the Technical Specifications.

154 INFORMATION FROM OWNER

In addition to showing the construction under this Contract, the drawings may show certain information obtained by the Owner regarding conditions and features which exist at the site of the work, both at and below the surface of the ground. The Owner and the Engineer expressly disclaim any responsibility for the accuracy or completeness of the information given on the drawings with regard to the existing conditions and features and the Contractor will not be entitled to any extra compensation on account of inaccuracy or incompleteness of such information. The information which is shown is only for the convenience of the Contractor, who must verify this information to his own satisfaction.

155 EXISTING UTILITIES, STRUCTURES AND FIXTURES

The Contractor will be required, at his own expense, to do everything necessary to support, protect and sustain all sewers, water, gas mains or service pipes; electric light, power poles, telephone or telegraph poles, manholes, valve boxes, conduits and any and all utilities, structures or fixtures

laid across or along the site of the work. In case any of the said utilities, structures or fixtures are damaged by the Contractor, they shall be repaired by the Contractor at his own expense, or by the authorities having control of the same and the expense of said repairs shall be deducted from the moneys due or to become due the Contractor under this Contract.

Should it become necessary to remove or relocate any utilities, structures or other fixtures, due to a grade and alignment conflict which would require the proposed utility, structure or fixture (not trench excavation, sheeting or other construction features) to occupy the same space as the existing pipe, pole, conduit and/or other fixture. The Contractor shall notify the Owner of the obstruction and the Engineer of the location and the circumstances and shall cease work (which might prove detrimental to the utility, structure or fixture encountered) if necessary until satisfactory arrangements have been made with the Owners of the same to properly care for and relocate them. Should it be necessary to cease work and a delay is caused thereby, the Contractor shall have no claim for damages or any claim other than for an extension of time. See GENERAL CONDITIONS, CLAIMS FOR EXTRA COST.

The removal or relocation of such interferences may be done by the Owner of the interfering utility or structure with his own forces, or by a Contractor whom he may engage for such purpose, or by private Contract between the utility company and this Contractor; or alternately he may request the Owner to cause this work to be performed under this Contract (at the utility company's expense). In the last instance, the Contractor shall perform such work under the terms of this Contract and shall be compensated as described in GENERAL CONDITIONS - CHANGES IN THE WORK, except where SPECIAL CONDITIONS OR TECHNICAL SPECIFICATIONS provide otherwise.

If the Contractor desires temporary changes of location of his convenience for any reason whatsoever, of water lines, gas lines, sewer lines, wire lines, service connections, water and gas meter boxes, valve boxes, light standards, cableways, signals and any other utilities, structure or fixtures, he shall satisfy the Engineer and Owner that the proposed relocation does not interfere with his or other Contractor's operations, or the requirements of the Contract Drawings and does not cause an obstruction or a hazard to traffic. The Contractor shall make his own request to the utility companies, pipe owners or other parties affected for such relocation work. Such relocation work for the convenience of the Contractor shall be made solely at the Contractor's expense.

The Contractor shall not remove or relocate any utility, structure, or fixture without the written approval of the Owner of that utility, structure or fixture unless otherwise shown on the Contract Drawings, specifications or ordered by the Engineer.

156 CONTROL OF EXISTING FLOWS

During the construction of all proposed work, the Contractor shall take every precaution and do the necessary work to maintain the flow of storm drainage, sanitary sewage and natural flows through the working areas. The Contractor is solely responsible for providing his flow control system and there shall be no separate payment for the required work. The Contractor shall be responsible for any flooding or sanitary backup on his work and to the property owners affected by such flooding or backup. The Contractor shall make such provisions as may be required by the

Local, State or Federal Health officers or any other public bodies with jurisdiction over the flow of storm drainage, sanitary seepage and natural flows.

In the event the Contractor uses water from natural water sources for his operations, intake methods shall be such as to create no harmful effects; and where water is taken from a stream, reasonable flow downstream from the intake shall be maintained.

157 SEWAGE, SURFACE, GROUNDWATER, AND FLOOD FLOWS

The Contractor shall furnish all the necessary equipment, shall take all necessary precautions, and shall assume the entire cost of handling any sewage, seepage, storm, groundwater, surface and flood flows which may be encountered at any time during the construction of the work. The manner of providing for these flows shall meet the approval of the Engineer and the entire cost of said work shall be included in the unit or lump sum prices bid for the various items of the work to be done under the Contract.

The Contractor shall employ such feasible and practical methods in his operations as will prevent pollution, sedimentation or the introduction of impurities or other objectionable materials that may become suspended or dissolved in waters reaching streams, ponds, lakes, water supplies, or other water bodies.

Water shall not be disposed of by discharging it into any street gutter, drainage channel, existing drainage system, natural stream, waterway, lake, pond, or bog, etc., without the prior approval of the Authority having jurisdiction thereof. Should such approval be obtained, the Contractor shall ensure that no solids, debris, suspended soil particles, impurities, or pollutants are allowed to enter the drainage system. The Contractor shall be fully responsible for any damages to these systems resulting from his disposal methods and any necessary measures (such as but not limited to cleanup) required to return the system to preconstruction conditions. In addition to the above, disposal on private property shall be only with the prior written permission of the property Owner.

Any water used for any purpose by the Contractor shall not be discharged in such a way as to create pollution, sedimentation or other adverse effects upon the aforementioned streams or waters.

In addition, the Contractor shall provide all necessary pumps, dams, drains, ditches, flumes, well points and other means of excluding and removing groundwater or water from any other source, from trenches, tunnels and other parts of the work and for preventing the trench slopes from sliding or caving. He shall sufficiently dewater all trenches, tunnels or other excavations to completely dry out and solidify the bottom of the trench to whatever depth is necessary below said bottom of the trench to provide a firm solid, completely dry bottom on which to place foundation material, lay pipe or build a structure.

It is expressly understood that the Engineer or Owner is not responsible for any flooding, high water tables, underground water or any other water problems which may be encountered on any portion of the work called for under this Contract and that the Contractor must include all anticipated costs for dewatering all excavations in the price bid under this Contract.

158 WEATHER CONDITIONS/WORK IN FREEZING WEATHER

In the event of temporary suspension of work, or during inclement weather, or whenever the Engineer shall direct, the Contractor will, and will cause his Subcontractors to protect carefully his and their work and materials against damage or injury from the weather. If, in the opinion of the Engineer, any work or materials shall have been damaged or injured by reason of failure on the part of the Contractor or any of his Subcontractors so to protect his and their work, such materials shall be removed and replaced at the expense of the Contractor.

Unless written permission be given, work liable to be affected by frost or freezing shall be suspended during freezing weather. When work proceeds under such a condition, the Contractor shall provide approved facilities for heating the materials and for protecting the finished work.

159 MAINTENANCE AND PROTECTION OF TRAFFIC

The provisions herein shall be deemed in effect unless more stringent provisions are called for within the Technical Specifications. The Contractor will be required to protect and maintain pedestrians and vehicular traffic.

The Contractor shall maintain and protect traffic by so conducting his construction operations that the traveling public is subjected to a minimum of delay and hazard.

Residents along the existing roads and those having business along them shall have safe means of ingress and egress at all times. Traffic shall be maintained at the intersections of all roads or streets crossing the road construction. Where directed by the Superintendent of Highways the Contractor shall provide such adequate and proper bridges over excavations as may be necessary or directed for the purpose of accommodating pedestrians or vehicles.

In the event any portion of a public road must be closed to traffic, permission shall be secured by the Contractor from the Town Superintendent of Highways or County or State Highway Department if in their jurisdiction and notice must be given by the Contractor to the Police and Fire Departments, and adequate detour sign posted.

Approved signs shall be provided along all highways while work is in progress, and where traffic direction is required, flagmen shall be designated by the Contractor to direct traffic past the equipment, machinery or construction operations. Construction equipment shall be removed entirely from the traveled roadway when work is shut down for the day and two lanes of traffic shall be maintained at night. Barricades shall be placed wherever the safety of the traveling public requires, where a road is officially closed, where an excavation is being made, or where heavy construction equipment is operating. In addition barricades shall be placed where they are deemed necessary in the opinion of the Superintendent of Highways or the Chief of Police, to direct traffic or to prevent entrance to streets of areas where construction is in progress.

Barricades shall be in accordance with the Owner's Public Works Specifications, and shall be lighted as provided therein. On traveled roads, a lighted warning sign is to be placed two hundred (200') feet before the approach of barricades, or as is necessary for safety along the approach line.

Where trenches have been cut, barricades, red flags, and warning signs, all properly lighted, shall be placed at frequent intervals and maintained until the trenches have been properly backfilled and compacted.

All barricades, lights, flags, and bombs shall be maintained intact at all times overnight, over the weekends, holidays or if the project is shut down for any period of time.

160 HOURS OF WORK

No work shall be done on the job before 8:00 a.m. nor after 5:00 p.m. unless the Owner is notified, nor shall any work be done on Saturdays, Sundays, or legal holidays unless Contractor shall have given Owner written request at least forty-eight (48) hours in advance. No additional payment will be made by Owner for overtime work under any circumstances unless a prior written order has been given to the Building Inspector. The Contractor shall comply with the Town Noise Ordinance which prohibits all work except emergency repair work, before 8:00 a.m. and after 7:30 p.m. Any expenses and/or damages, including the cost of inspection or time of Town employees required, arising from the Contractor's operations beyond the hours and/or days specified above will be borne by the Contractor. The cost for inspection to be borne by the Contractor will be for premium time beyond that specified.

161 WATCHMAN

Contractor may, at his option and expense, employ a watchman to protect property at all times during which work is not under active supervision of his Construction Superintendent. Owner will not assume responsibility for losses or damage to property through theft or vandalism.

162 FIELD COPIES

The Contractor shall keep one copy of the specifications, plans and all shop drawings in good order, available to the Commissioner and his representative at the job location.

163 EMERGENCY WORK

If in the opinion of the Superintendent of Highways, the work is carried on in such fashion that the public safety, private property, streets or utilities are endangered, or that the work is carried on in such a manner as to create unnecessary inconvenience to the public the Superintendent shall, immediately upon given notice, be authorized to undertake such corrective measures as he may deem to be necessary.

164 PROTECTION

The Contractor shall protect and maintain all property, structures and utilities, public or private and shall provide whatever means are required to do so, as part of this Contract. The Contractor shall take steps to protect the site and neighborhood from dust, mud, paint, and inconvenience. He shall take such steps as are necessary to prevent mud and silt from washing off the project area, prevent dust from blowing about the neighborhood, and prevent loaded trucks from spilling material upon traveled roadways. Calcium chloride shall be used to settle dust whenever required by the Engineer.

If the work is stopped for any purpose, all rigging, scaffolds, and equipment shall be made secure to prevent any danger from wind, storm or accidents.

The Contractor must put up and maintain such barriers, signs and red lights as will effectively protect his work, materials, and prevent accidents in consequence of the work. Steps shall be taken to prevent trespass wherever the public may be endangered. He shall assume all liability occasioned in any way by his acts or neglect, or those of his agents, employees or workmen.

The Contractor shall so control his operation as to prevent damage to trees and shrubs which are to be preserved. Protection may include coverings, fences and boards lashed to trees to prevent damage from blasting or machine operations or hand tunneling through root areas. The Contractor shall carefully cut off all branches of trees which may have been broken or injured during construction. All tree repairs and painting of tree wounds shall be as specified in the New York State Department of Transportation Specifications.

Should work necessitate the moving of a survey monument, the property owner, Town, County or other agency which can reasonably be assumed to have established the monument, shall be informed far enough in advance to arrange for adequate referencing. In no case, however, shall a monument be disturbed without prior approval of the Engineer.

All barricades, lights, flags, bombs and any other means set up to protect the public or the work from injury or damage shall be maintained overnight, over weekends and holidays, or for any duration during which the job is not complete but the work may be shut down. Additional precaution such as filling of trenches or installation of steel plates may be required in areas of heavy traffic, on weekends extended by legal holidays or when there is expectation of inclement weather.

165 PAYMENT FOR GENERAL CONDITIONS

The cost of the performance of any work required by these General Conditions shall be considered to be a part of the Contractor's Base Bid if the Contract is a Lump Sum Contract, and spread out among all the unit prices, if the Contract is a Unit Price Contract. There will be no additional payment for work required by these General Conditions.

166 DAMAGE TO PRIVATE PROPERTY

If the Contractor damages private property or facilities outside the designated work area (which work area is to be restored under the restoration provisions of the Contract), he shall restore the private property or facilities promptly and completely in the same manner as specified under the restoration provisions of these specifications. If he does not do so within a reasonable period of time, as determined by the Commissioner, the Owner may retain or deduct from any sum or sums due to the Contractor such amount or amounts as are necessary to correct the condition and employ the Owner's forces or another Contractor to do the corrective work. The fact that the Contractor has referred a damage claim to his insurance carrier shall not relieve him of liability for prompt and full restoration of damage. For purposes of this section of the Contract, the Owner will treat what are essentially private facilities within a public right-of-way (including but not limited to mailboxes, shrubs, flowers and other plantings, walls, light poles, etc.) in the same manner as described above for private property.

167 RESTORATION

All man-made and natural features in the construction site disturbed or removed for the proper completion of the work shall be reset or replaced. All man-made or natural features damaged or destroyed shall be repaired or restored to a condition equal to or better than that existing at the start of the work, with materials equal to or better than the original ones.

In cases where it is impossible to replace an item with an equivalent item (large trees, exotic plants) the Contractor may, subject to the approval of the Engineer, substitute other similar items whose total value shall equal that of the destroyed one.

Where the work area extends onto private property, the Contractor shall make all reasonable attempts to satisfy the Owners. In case of dispute, the Commissioner of Public Works shall be the judge as to the reasonableness of equivalency of repaired and restored features.

If the Contract documents contain more detailed or more stringent specifications for restoration than in this section, the more detailed or stringent specifications shall take precedence over this section. If the Contract documents do not contain detailed specifications for restoration, then this section expresses the intent of the Owner; all published specifications of the Owner containing details of construction applicable to items of restoration (e.g. grass, pavement, etc.) shall be deemed included in these Contract documents as if set forth in full, if not actually printed herein.

All restoration work shall be maintained for a period of one year after completion of the project by this Contract and secured by the maintenance bond.

If the Contract documents contain a specific payment clause for restoration, then that clause shall apply; otherwise payment for restoration shall be as described in Section 165.

168 DRUG AND ALCOHOL TESTING

As a Contractor providing services to the Owner involving the driving of commercial vehicles, we are obligated by federal law/regulation to ensure that you are in compliance with drug and alcohol testing requirements under 49 CFR Part 382. If your company's services involve driving commercial motor vehicles with a gross vehicle weight of more than 26,000 pounds (inclusive of a towed unit with a gross vehicle weight of more than 10,000 pounds), or are used in the transportation of hazardous materials in a quantity requiring "placarding," or are designed to carry more than 15 passengers including the driver, this is applicable to you.

By federal regulation, verification must be completed and submitted to the Owner every six months.

169 OSHA REGULATIONS - Standards - 29 CFR

Standard Number: 1926.650

Standard Title: Scope, application, and definitions applicable to this subpart.

Subpart Number: P

Subpart Title: Excavations

- (a) Scope and application. This subpart applies to all open excavations made in the earth's surface. Excavations are defined to include trenches.
- (b) Definitions applicable to this subpart.

"Accepted engineering practices" means those requirements which are compatible with standards of practice required by a registered professional engineer.

"Aluminum Hydraulic Shoring" means a pre-engineered shoring system comprised of aluminum hydraulic cylinders (crossbraces) used in conjunction with vertical rails (uprights) or horizontal rails (wales). Such system is designed specifically to support the sidewalls of an excavation and prevent cave-ins.

"Bell-bottom pier hole" means a type of shaft or footing excavation, the bottom of which is made larger than the cross section above to form a belled shape.

"Benching (Benching system)" means a method of protecting employees from cave-ins by excavating the sides of an excavation to form one or a series of horizontal levels or steps, usually with vertical or near-vertical surfaces between levels.

"Cave-in" means the separation of a mass of soil or rock material from the side of an excavation, or the loss of soil from under a trench shield or support system, and its sudden movement into the excavation, either by falling or sliding, in sufficient quantity so that it could entrap, bury, or otherwise injure and immobilize a person.

"Competent person" means one who is capable of identifying existing and predictable hazards in the surroundings, or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them.

"Cross braces" mean the horizontal members of a shoring system installed perpendicular to the sides of the excavation, the ends of which bear against either uprights or wales.

“Excavation” means any man-made cut, cavity, trench, or depression in an earth surface, formed by earth removal.

“Faces” or “sides” means the vertical or inclined earth surfaces formed as a result of excavation work.

“Failure” means the breakage, displacement, or permanent deformation of a structural member or connection so as to reduce its structural integrity and its supportive capabilities.

“Hazardous atmosphere” means an atmosphere which by reason of being explosive, flammable, poisonous, corrosive, oxidizing, irritating, oxygen deficient, toxic, or otherwise harmful, may cause death, illness, or injury.

“Kickout” means the accidental release or failure of a cross brace.

“Protective system” means a method of protecting employees from cave-ins, from material that could fall or roll from an excavation face or into an excavation, or from the collapse of adjacent structures. Protective systems include support systems, sloping and benching systems, shield systems, and other systems that provide the necessary protection.

“Ramp” means an inclined walking or working surface that is used to gain access to one point from another, and is constructed from earth or from structural materials such as steel or wood.

“Registered Professional Engineer” means a person who is registered as a professional engineer in the state where the work is to be performed. However, a professional engineer, registered in any state is deemed to be a “registered professional engineer” within the meaning of this standard when approving designs for “manufactured protective systems” or “tabulated data” to be used in interstate commerce.

“Sheeting” means the members of a shoring system that retain the earth in position and in turn are supported by other members of the shoring system.

“Shield (Shield system)” means a structure that is able to withstand the forces imposed on it by a cave-in and thereby protect employees within the structure. Shields can be permanent structures or can be designed to be portable and moved along as work progresses. Additionally, shields can be either pre-manufactured or job-built in accordance with 1926.652(c)(3) or (c)(4). Shields used in trenches are usually referred to as “trench boxes” or “trench shields.”

“Shoring (Shoring system)” means a structure such as a metal hydraulic, mechanical or timber shoring system that supports the sides of an excavation and which is designed to prevent cave-ins.

“Sides”. See “Faces.”

“Sloping (Sloping system)” means a method of protecting employees from cave-ins by excavating to form sides of an excavation that are inclined away from the excavation so as to prevent cave-ins. The angle of incline required to prevent a cave-in varies with differences in such factors as the soil type, environmental conditions of exposure, and application of surcharge loads.

“Stable rock” means natural solid mineral material that can be excavated with vertical sides and will remain intact while exposed. Unstable rock is considered to be stable when the rock material on the side or sides of the excavation is secured against caving-in or movement by rock bolts or by another protective system that has been designed by a registered professional engineer.

“Structural ramp” means a ramp built of steel or wood, usually used for vehicle access. Ramps made of soil or rock are not considered structural ramps.

“Support system” means a structure such as underpinning, bracing, or shoring, which provides support to an adjacent structure, underground installation, or the sides of an excavation.

“Tabulated data” means tables and charts approved by a registered professional engineer and used to design and construct a protective system.

“Trench (Trench excavation)” means a narrow excavation (in relation to its length) made below the surface of the ground. In general, the depth is greater than the width, but the width of a trench (measured at the bottom) is not greater than 15 feet (4.6 m). If forms or other structures are installed or constructed in an excavation so as to reduce the dimension measured from the forms or structure to the side of the excavation to 15 feet (4.6 m) or less (measured at the bottom of the excavation), the excavation is also considered to be a trench.

“Trench box.” See “Shield.”

“Trench shield.” See “Shield.”

“Uprights” means the vertical members of a trench shoring system placed in contact with the earth and usually positioned so that individual members do not contact each other. Uprights placed so that individual members are closely spaced, in contact with or interconnected to each other, are often called “sheeting.”

“Wales” means horizontal members of a shoring system placed parallel to the excavation face whose sides bear against the vertical members of the shoring system or earth.

Standard Number: 1926.651

Standard Title: Specific Excavation Requirements.

Subpart Number: P

Subpart Title: Excavations

- a. Surface encumbrances. All surface encumbrances that are located so as to create a hazard to employees shall be removed or supported, as necessary, to safeguard employees.
- b. Underground installations.
 - 1 The estimated location of utility installations, such as sewer, telephone, fuel, electric, water lines, or any other underground installations that reasonably may be expected to be encountered during excavation work, shall be determined prior to opening an excavation.
 - 2 Utility companies or owners shall be contacted within established or customary local response times, advised of the proposed work, and asked to establish the location of the utility underground installations prior to the start of actual excavation. When utility companies or owners cannot respond to a request to locate underground utility installations within 24 hours (unless a longer period is required by state or local law), or cannot establish the exact location of these installations, the employer may proceed, provided the employer does so with caution, and provided detection equipment or other acceptable means to locate utility installations are used.
 - 3 When excavation operations approach the estimated location of underground installations, the exact location of the installations shall be determined by safe and acceptable means.
 - 4 While the excavation is open, underground installations shall be protected, supported or removed as necessary to safeguard employees.

- c. Access and egress -
 - 1 Structural ramps.
 - i. Structural ramps that are used solely by employees as a means of access or egress from excavations shall be designed by a competent person. Structural ramps used for access or egress of equipment shall be designed by a competent person qualified in structural design, and shall be constructed in accordance with the design.
 - ii. Ramps and runways constructed of two or more structural members shall have the structural members connected together to prevent displacement.
 - iii. Structural members used for ramps and runways shall be of uniform thickness.
 - iv. Cleats or other appropriate means used to connect runway structural members shall be attached to the bottom of the runway or shall be attached in a manner to prevent tripping.
 - v. Structural ramps used in lieu of steps shall be provided with cleats or other surface treatments on the top surface to prevent slipping.
 - 2 Means of egress from trench excavations. A stairway, ladder, ramp or other safe means of egress shall be located in trench excavations that are 4 feet (1.22 m) or more in depth so as to require no more than 25 feet (7.62 m) of lateral travel for employees.
- d. Exposure to vehicular traffic. Employees exposed to public vehicular traffic shall be provided with, and shall wear warning vests or other suitable garments marked with or made of reflectorized or high-visibility material.
- e. Exposure to falling loads. No employee shall be permitted underneath loads handled by lifting or digging equipment. Employees shall be required to stand away from any vehicle being loaded or unloaded to avoid being struck by any spillage or falling materials. Operators may remain in the cabs of vehicles being loaded or unloaded when the vehicles are equipped, in accordance with 1926.601(b)(6), to provide adequate protection for the operator during loading and unloading operations.
- f. Warning system for mobile equipment. When mobile equipment is operated adjacent to an excavation, or when such equipment is required to approach the edge of an excavation, and the operator does not have a clear and direct view of the edge of the excavation, a warning system shall be utilized such as barricades, hand or mechanical signals, or stop logs. If possible, the grade should be away from the excavation.
- g. Hazardous atmospheres -
 - 1 Testing and controls. In addition to the requirements set forth in subparts D and E of this part (29 CFR 1926.50 - 1926.107) to prevent exposure to harmful levels of atmospheric contaminants and to assure acceptable atmospheric conditions, the following requirements shall apply:
 - i. Where oxygen deficiency (atmospheres containing less than 19.5 percent oxygen) or a hazardous atmosphere exists or could reasonably be expected to exist, such as in excavations in landfill areas or excavations in areas where hazardous substances are stored nearby, the atmospheres in the excavation shall be tested before employees enter excavations greater than 4 feet (1.22 m) in depth.
 - ii. Adequate precautions shall be taken to prevent employee exposure to atmospheres

containing less than 19.5 percent oxygen and other hazardous atmospheres. These precautions include providing proper respiratory protection or ventilation in accordance with subparts D and E of this part respectively.

- iii. Adequate precaution shall be taken such as providing ventilation, to prevent employee exposure to an atmosphere containing a concentration of a flammable gas in excess of 20 percent of the lower flammable limit of the gas.
- iv. When controls are used that are intended to reduce the level of atmospheric contaminants to acceptable levels, testing shall be conducted as often as necessary to ensure that the atmosphere remains safe.

2. Emergency rescue equipment.

- i. Emergency rescue equipment, such as breathing apparatus, a safety harness and line, or a basket stretcher, shall be readily available where hazardous atmospheric conditions exist or may reasonably be expected to develop during work in an excavation. This equipment shall be attended when in use.
- ii. Employees entering bell-bottom pier holes, or other similar deep and confined footing excavations, shall wear a harness with a lifeline securely attached to it. The lifeline shall be separate from any line used to handle materials, and shall be individually attended at all times while the employee wearing the lifeline is in the excavation.

h. Protection from hazards associated with water accumulation.

- 1. Employees shall not work in excavations in which there is accumulated water, or in excavations in which water is accumulating, unless adequate precautions have been taken to protect employees against the hazards posed by water accumulation. The precautions necessary to protect employees adequately vary with each situation, but could include special support or shield systems to protect from cave-ins, water removal to control the level of accumulating water, or use of a safety harness and lifeline.
- 2. If water is controlled or prevented from accumulating by the use of water removal equipment, the water removal equipment and operations shall be monitored by a competent person to ensure proper operation.
- 3. If excavation work interrupts the natural drainage of surface water (such as streams), diversion ditches, dikes, or other suitable means shall be used to prevent surface water from entering the excavation and to provide adequate drainage of the area adjacent to the excavation. Excavations subject to runoff from heavy rains will require an inspection by a competent person and compliance with paragraphs (h)(1) and (h)(2) of this section.

i. Stability of adjacent structures.

- 1. Where the stability of adjoining buildings, walls, or other structures is endangered by excavation operations, support systems such as shoring, bracing, or underpinning shall be provided to ensure the stability of such structures for the protection of employees.
- 2. Excavation below the level of the base or footing of any foundation or retaining wall that could be reasonably expected to pose a hazard to employees shall not be permitted except when:
 - i. A support system, such as underpinning, is provided to ensure the safety of employees

- and the stability of the structure; or
 - ii. The excavation is in stable rock; or
 - iii. A registered professional engineer has approved the determination that the structure is sufficiently removed from the excavation so as to be unaffected by the excavation activity; or
 - iv. A registered professional engineer has approved the determination that such excavation work will not pose a hazard to employees.
- 3 Sidewalks, pavements and appurtenant structure shall not be undermined unless a support system or another method of protection is provided to protect employees from the possible collapse of such structures.
- j. Protection of employees from loose rock or soil.
- 1 Adequate protection shall be provided to protect employees from loose rock or soil that could pose a hazard by falling or rolling from an excavation face. Such protection shall consist of scaling to remove loose material; installation of protective barricades at intervals as necessary on the face to stop and contain falling material; or other means that provide equivalent protection.
 - 2 Employees shall be protected from excavated or other materials or equipment that could pose a hazard by falling or rolling into excavations. Protection shall be provided by placing and keeping such materials or equipment at least 2 feet (.61 m) from the edge of excavations, or by the use of retaining devices that are sufficient to prevent materials or equipment from falling or rolling into excavations, or by a combination of both if necessary.
- k. Inspections.
- 1 Daily inspections of excavations, the adjacent areas, and protective systems shall be made by a competent person for evidence of a situation that could result in possible cave-ins, indications of failure of protective systems, hazardous atmospheres, or other hazardous conditions. An inspection shall be conducted by the competent person prior to the start of work and as needed throughout the shift. Inspections shall also be made after every rainstorm or other hazard increasing occurrence. These inspections are only required when employee exposure can be reasonably anticipated.
 - 2 Where the competent person finds evidence of a situation that could result in a possible cave-in, indications of failure of protective systems, hazardous atmospheres, or other hazardous conditions, exposed employees shall be removed from the hazardous area until the necessary precautions have been taken to ensure their safety.
- l. Fall protection.
- 1 Walkways shall be provided where employees or equipment are required or permitted to cross over excavations. Guardrails which comply with 1926.502(b) shall be provided where walkways are 6 feet (1.8 m) or more above lower levels. [59 FR 40730, Aug 9, 1994]

Requirements for protective systems. - 1926.652

Standard Number: 1926.652

Standard Title: Requirements for protective systems.

Subpart Number: P

Subpart Title: Excavations

a. Protection of employees in excavations.

- 1 Each employee in an excavation shall be protected from cave-ins by an adequate protective system designed in accordance with paragraph (b) or (c) of this section except when:
 - i. Excavations are made entirely in stable rock; or
 - ii. Excavations are less than 5 feet (1.52 m) in depth and examination of the ground by a competent person provides no indication of a potential cave-in.
- 2 Protective systems shall have the capacity to resist without failure all loads that are intended or could reasonably be expected to be applied or transmitted to the system.

b. Design of sloping and benching systems. The slopes and configurations of sloping and benching systems shall be selected and constructed by the employer or his designee and shall be in accordance with the requirements of paragraph (b)(1); or, in the alternative, paragraph (b)(2); or, in the alternative, paragraph (b)(3); or, in the alternative, paragraph (b)(4), as follows:

1 Option (1) - Allowable configurations and slopes.

- i. Excavations shall be sloped at an angle not steeper than one and one-half horizontal to one vertical (34 degrees measured from the horizontal), unless the employer uses one of the other options listed below.
- ii. Slopes specified in paragraph (b)(1)(i) of this section, shall be excavated to form configurations that are in accordance with the slopes shown for Type C soil in Appendix B to this subpart.

2 Determination of slopes and configurations using Appendices A and B. Maximum allowable slopes, and allowable configurations for sloping and benching systems, shall be determined in accordance with the conditions and requirements set forth in appendices A and B to this subpart.

3 Option (3) - Designs using other tabulated data.

- i. Designs of sloping or benching systems shall be selected from and in accordance with tabulated data, such as tables and charts.
- ii. The tabulated data shall be in written form and shall include all of the following:
 - (a) Identification of the parameters that affect the selection of a sloping or benching system drawn from such data;
 - (b) Identification of the limits of use of the data, to include the magnitude and configuration of slopes determined to be safe;
 - (c) Explanatory information as may be necessary to aid the user in making a correct selection of a protective system from the data.
- iii. At least one copy of the tabulated data which identifies the registered professional engineer who approved the data, shall be maintained at the jobsite during construction of the protective system. After that time the data may be stored off the jobsite, but a

copy of the data shall be made available to the Secretary upon request.

- 4 Option (4) - Design by a registered professional engineer.
 - i. Sloping and benching systems not utilizing Option (1) or Option (2) or Option (3) under paragraph (b) of this section shall be approved by a registered professional engineer.
 - ii. Designs shall be in written form and shall include at least the following:
 - (a) The magnitude of the slopes that were determined to be safe for the particular project;
 - (b) The configurations that were determined to be safe for the particular project;
 - iii. At least one copy of the design shall be maintained at the jobsite while the slope is being constructed. After that time the design need not be at the jobsite, but a copy shall be made available to the Secretary upon request.
- c. Design of support systems, shield systems, and other protective systems. Designs of support systems, shield systems, and other protective systems shall be selected and constructed by the employer or his designee and shall be in accordance with the requirements of paragraph (c)(1); or, in the alternative, paragraph (c)(2); or, in the alternative, paragraph (c)(3); or, in the alternative, paragraph (c)(4) as follows:
 - 1 Option (1) - Designs using appendices A, C and D. Designs for timber shoring in trenches shall be determined in accordance with the conditions and requirements set forth in appendices A and C to this subpart. Designs for aluminum hydraulic shoring shall be in accordance with paragraph (c)(2) of this section, but if manufacturer's tabulated data cannot be utilized, designs shall be in accordance with appendix D.
 - 2 Option (2) - Designs Using Manufacturer's Tabulated Data.
 - i. Design of support systems, shield systems, or other protective systems that are drawn from manufacturer's tabulated data shall be in accordance with all specifications, recommendations, and limitations issued or made by the manufacturer.
 - ii. Deviation from the specifications, recommendations, and limitations issued or made by the manufacturer shall only be allowed after the manufacturer issues specific written approval.
 - iii. Manufacturer's specifications, recommendations, and limitations, and manufacturer's approval to deviate from the specifications, recommendations, and limitations shall be in written form at the jobsite

Soil Classification - 1926 Subpart P App A

Standard Number: 1926 Subpart P App A

Standard Title: Soil Classification

Subpart Number: P

Subpart Title: Excavations

- a. Scope and application -
 - 1 Scope. This appendix describes a method of classifying soil and rock deposits based on site and environmental conditions, and on the structure and composition of the earth deposits. The appendix contains definitions, sets forth requirements, and describes acceptable visual and manual tests for use in classifying soils.

- 2 Application. This appendix applies when a sloping or benching system is designed in accordance with the requirements set forth in 1926.652(b) (2) as a method of protection for employees from cave-ins. This appendix also applies when timber shoring for excavations is designed as a method of protection from cave-ins in accordance with appendix C to subpart P of part 1926, and when aluminum hydraulic shoring is designed in accordance with appendix D. This Appendix also applies if other protective systems are designed and selected for use from data prepared in accordance with the requirements set forth in 1926.652(c), and the use of the data is predicated on the use of the soil classification system set forth in this appendix.
- b. Definitions. The definitions and examples given below are based on, in whole or in part, the following; American Society for Testing Materials (ASTM) Standards D653-85 and D2488; The Unified Soils Classification System; The U.S. Department of Agriculture (USDA) Textural Classification Scheme; and The National Bureau of Standards Report BSS-121.
- “**Cemented soil**” means a soil in which the particles are held together by a chemical agent, such as calcium carbonate, such that a hand-size sample cannot be crushed into powder or individual soil particles by finger pressure.
- “**Cohesive soil**” means clay (fine grained soil), or soil with a high clay content, which has cohesive strength. Cohesive soil does not crumble, can be excavated with vertical sideslopes, and is plastic when moist. Cohesive soil is hard to break up when dry, and exhibits significant cohesion when submerged. Cohesive soils include clayey silt, sandy clay, silty clay, clay and organic clay.
- “**Dry soil**” means soil that does not exhibit visible signs of moisture content.
- “**Fissured**” means a soil material that has a tendency to break along definite planes of fracture with little resistance, or a material that exhibits open cracks, such as tension cracks, in an exposed surface.
- “**Granular soil**” means gravel, sand, or silt (coarse grained soil) with little or no clay content. Granular soil has no cohesive strength. Some moist granular soils exhibit apparent cohesion. Granular soil cannot be molded when moist and crumbles easily when dry.
- “**Layered system**” means two or more distinctly different soil or rock types arranged in layers. Micaceous seams or weakened planes in rock or shale are considered layered.
- “**Moist soil**” means a condition in which a soil looks and feels damp. Moist cohesive soil can easily be shaped into a ball and rolled into small diameter threads before crumbling. Moist granular soil that contains some cohesive material will exhibit signs of cohesion between particles.
- “**Plastic**” means a property of a soil which allows the soil to be deformed or molded without cracking, or appreciable volume change.
- “**Saturated soil**” means a soil in which the voids are filled with water. Saturation does not require flow. Saturation, or near saturation, is necessary for the proper use of instruments such as a pocket penetrometer or shear vane.
- “**Soil classification system**” means, for the purpose of this subpart, a method of categorizing soil and rock deposits in a hierarchy of Stable Rock, Type A, Type B, and Type C, in decreasing order of stability. The categories are determined based on an

analysis of the properties and performance characteristics of the deposits and the characteristics of the deposits and the environmental conditions of exposure.

“Stable rock” means natural solid mineral matter that can be excavated with vertical sides and remain intact while exposed.

“Submerged soil” means soil which is underwater or is free seeping.

“Type A” means cohesive soils with an unconfined, compressive strength of 1.5 ton per square foot (tsf) (144 kPa) or greater. Examples of cohesive soils are: clay, silty clay, sandy clay, clay loam and, in some cases, silty clay loam and sandy clay loam.

Cemented soils such as caliche and hardpan are also considered Type A. However, no soil is Type A if:

- (1) The soil is fissured; or
- (2) The soil is subject to vibration from heavy traffic, pile driving, or similar effects; or
- (3) The soil has been previously disturbed; or
- (4) The soil is part of a sloped, layered system where the layers dip into the excavation on a slope of four horizontal to one vertical (4H:1V) or greater; or
- (5) The material is subject to other factors that would require it to be classified as a less stable material.

“Type B” means:

- (1) Cohesive soil with an unconfined compressive strength greater than 0.5 tsf (48 kPa) but less than 1.5 tsf (144 kPa); or
- (2) Granular cohesionless soils including: angular gravel (similar to crushed rock), silt, silt loam, sandy loam and, in some cases, silty clay loam and sandy clay loam.
- (3) Previously disturbed soils except those which would otherwise be classed as Type C soil.
- (4) Soil that meets the unconfined compressive strength or cementation requirements for Type A, but is fissured or subject to vibration; or
- (5) Dry rock that is not stable; or
- (6) Material that is part of a sloped, layered system where the layers dip into the excavation on a slope less steep than four horizontal to one vertical (4H:1V), but only if the material would otherwise be classified as Type B.

“Type C” means:

- (1) Cohesive soil with an unconfined compressive strength of 0.5 tsf (48 kPa) or less; or
- (2) Granular soils including gravel, sand, and loamy sand; or
- (3) Submerged soil or soil from which water is freely seeping; or
- (4) Submerged rock that is not stable, or
- (5) Material in a sloped, layered system where the layers dip into the excavation on a slope of four horizontal to one vertical (4H:1V) or steeper.

“Unconfined compressive strength” means the load per unit area at which a soil will fail in compression. It can be determined by laboratory testing, or estimated in the field using a pocket penetrometer, by thumb penetration tests, and other methods.

“Wet soil” means soil that contains significantly more moisture than moist soil, but in such a range of values that cohesive material will slump or begin to flow when vibrated. Granular material that would exhibit cohesive properties when moist will lose those cohesive properties when wet.

c. Requirements -

- 1 Classification of soil and rock deposits. Each soil and rock deposit shall be classified by a competent person as Stable Rock, Type A, Type B, or Type C in accordance with the definitions set forth in paragraph (b) of this appendix.
- 2 Basis of classification. The classification of the deposits shall be made based on the results of at least one visual and at least one manual analysis. Such analyses shall be conducted by a competent person using tests described in paragraph (d) below, or in other recognized methods of soil classification and testing such as those adopted by the American Society for Testing Materials, or the U.S. Department of Agriculture textural classification
- 3 Visual and manual analyses. The visual and manual analyses, such as those noted as being acceptable in paragraph (d) of this appendix, shall be designed and conducted to provide sufficient quantitative and qualitative information as may be necessary to identify properly the properties, factors, and conditions affecting the classification of the deposits.
- 4 Layered systems. In a layered system, the system shall be classified in accordance with its weakest layer. However, each layer may be classified individually where a more stable layer lies under a less stable layer.
- 5 Reclassification. If, after classifying a deposit, the properties, factors, or conditions affecting its classification change in any way, the changes shall be evaluated by a competent person. The deposit shall be reclassified as necessary to reflect the changed circumstances.

d. Acceptable visual and manual tests.

- 1 Visual tests. Visual analysis is conducted to determine qualitative information regarding the excavation site in general, the soil adjacent to the excavation, the soil forming the sides of the open excavation, and the soil taken as samples from excavated material.
 - i. Observe samples of soil that are excavated and soil in the sides of the excavation. Estimate the range of particle sizes and the relative amounts of the particle sizes. Soil that is primarily composed of fine-grained material is cohesive material. Soil composed primarily of coarse-grained sand or gravel is granular material.
 - ii. Observe soil as it is excavated. Soil that remains in clumps when excavated is cohesive. Soil that breaks up easily and does not stay in clumps is granular.
 - iii. Observe the side of the opened excavation and the surface area adjacent to the excavation. Crack-like openings such as tension cracks could indicate fissured material. If chunks of soil spall off a vertical side, the soil could be fissured. Small spalls are evidence of moving ground and are indications of potentially hazardous situations.
 - iv. Observe the area adjacent to the excavation and the excavation itself for evidence of existing utility and other underground structures, and to identify previously disturbed

- soil.
- v. Observed the opened side of the excavation to identify layered systems. Examine layered systems to identify if the layers slope toward the excavation. Estimate the degree of slope of the layers.
 - vi. Observe the area adjacent to the excavation and the sides of the opened excavation for evidence of surface water, water seeping from the sides of the excavation, or the location of the level of the water table.
 - vii. Observe the area adjacent to the excavation and the area within the excavation for sources of vibration that may affect the stability of the excavation face.
- 2 Manual tests. Manual analysis of soil samples is conducted to determine quantitative as well as qualitative properties of soil and to provide more information in order to classify soil properly.
- i. Plasticity. Mold a moist or wet sample of soil into a ball and attempt to roll it into threads as thin as 1/8-inch in diameter. Cohesive material can be successfully rolled into threads without crumbling. For example, if at least a two inch (50 mm) length of 1/8-inch thread can be held on one end without tearing, the soil is cohesive.
 - ii. Dry strength. If the soil is dry and crumbles on its own or with moderate pressure into individual grains or fine powder, it is granular (any combination of gravel, sand, or silt). If the soil is dry and falls into clumps which break up into smaller clumps, but the smaller clumps can only be broken up with difficulty, it may be clay in any combination with gravel, sand or silt. If the dry soil breaks into clumps which do not break up into small clumps and which can only be broken with difficulty, and there is no visual indication the soil is fissured, the soil may be considered unfissured.
 - iii. Thumb penetration. The thumb penetration test can be used to estimate the unconfined compressive strength of cohesive soils. (This test is based on the thumb penetration test described in American Society for Testing and Materials (ASTM) Standard designation D2488 - "Standard Recommended Practice for Description of Soils (Visual - Manual Procedure).") Type A soils with an unconfined compressive strength of 1.5 tsf can be readily indented by the thumb; however, they can be penetrated by the thumb only with very great effort. Type C soils with an unconfined compressive strength of 0.5 tsf can be easily penetrated several inches by the thumb, and can be molded by light finger pressure. This test should be conducted on an undisturbed soil sample, such as a large clump of spoil, as soon as practicable after excavation to keep to a minimum the effects of exposure to drying influences. If the excavation is later exposed to wetting influences (rain, flooding), the classification of the soil must be changed accordingly.
 - iv. Other strength tests. Estimates of unconfined compressive strength of soils can also be obtained by use of a pocket penetrometer or by using a hand-operated sheervane.
 - v. Drying test. The basic purpose of the drying test is to differentiate between cohesive material with fissures, unfissured cohesive material, and granular material. The procedure for the drying test involves drying a sample of soil that is approximately one inch thick (2.54 cm) and six inches (15.24 cm) in diameter until it is thoroughly dry:
 - (a) If the sample develops cracks as it dries, significant fissures are indicated.
 - (b) Samples that dry without cracking are to be broken by hand. If considerable

force is necessary to break a sample, the soil has significant cohesive material content. The soil can be classified as an unfissured cohesive material and the unconfined compressive strength should be determined.

- (c) If a sample breaks easily by hand, it is either a fissured cohesive material or a granular material. To distinguish between the two, pulverize the dried clumps of the sample by hand or by stepping on them. If the clumps do not pulverize easily, the material is cohesive with fissures. If they pulverize easily into very small fragments, the material is granular.

Standard Number: 1926 Subpart P App B

Standard Title: Sloping and Benching

Subpart Number: P

Subpart Title: Excavations

- a. Scope and application. This appendix contains specifications for sloping and benching when used as methods of protecting employees working in excavations from cave-ins. The requirements of this appendix apply when the design of sloping and benching protective systems is to be performed in accordance with the requirements set forth in 1926.652(b)(2).
- b. Definitions.

“Actual slope” means the slope to which an excavation face is excavated.

“Distress” means that the soil is in a condition where a cave-in is imminent or is likely to occur. Distress is evidenced by such phenomena as the development of fissures in the face of or adjacent to an open excavation; the subsidence of the edge of an excavation; the slumping of material from the face or the bulging or heaving of material from the bottom of an excavation; the spalling of material from the face of an excavation; and ravelling, i.e., small amounts of material such as pebbles or little clumps of material suddenly separating from the face of an excavation and trickling or rolling down into the excavation.

“Maximum allowable slope” means the steepest incline of an excavation face that is acceptable for the most favorable site conditions as protection against cave-ins, and is expressed as the ratio of horizontal distance to vertical rise (H:V).

“Short term exposure” means a period of time less than or equal to 24 hours that an excavation is open.

- c. Requirements
 - 1 Soil classification. Soil and rock deposits shall be classified in accordance with appendix A to subpart P of part 1926.
 - 2 Maximum allowable slope. The maximum allowable slope for a soil or rock deposit shall be determined from Table B-1 of this appendix.
 - 3 Actual slope
 - i. The actual slope shall not be steeper than the maximum allowable slope.
 - ii. The actual slope shall be less steep than the maximum allowable slope, when there are signs of distress. If that situation occurs, the slope shall be cut back to an actual slope which is at least 1/2 horizontal to one vertical (1/2H:1V) less steep than the maximum allowable slope.

- iii. When surcharge loads from stored material or equipment, operating equipment, or traffic are present, a competent person shall determine the degree to which the actual slope must be reduced below the maximum allowable slope, and shall assure that such reduction is achieved. Surcharge loads from adjacent structures shall be evaluated in accordance with 1926.651(i).
- 4 Configurations. Configurations of sloping and benching systems shall be in accordance with Figure B-1.

TABLE B-1 MAXIMUM ALLOWABLE SLOPES	
Soil or Rock Type	Maximum Allowable Slopes (H:V) ⁽¹⁾ For Excavations Less Than 20 Feet Deep ⁽³⁾
Stable Rock	Vertical (90°)
Type A ⁽²⁾	3/4:1 (53°)
Type B	1:1 (45°)
Type C	1 1/2:1 (34°)

¹ Numbers shown in parentheses next to maximum allowable slopes are angles expressed in degrees from the horizontal. Angles have been rounded off.

² A short-term maximum allowable slope of 1/2H:1V (63 degrees) is allowed in excavations in Type A soil that are 12 feet (3.67 m) or less in depth. Short-term maximum allowable slopes for excavations greater than 12 feet (3.67 m) in depth shall be ¾ H:1V (53 degrees).

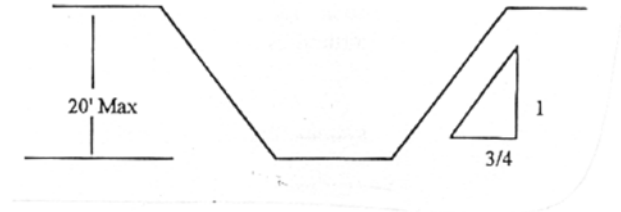
³ Sloping or benching for excavations greater than 20 feet deep shall be designed by a registered professional engineer.

Figure B-1 - Slope Configurations

(All slopes stated below are in the horizontal to vertical ratio)

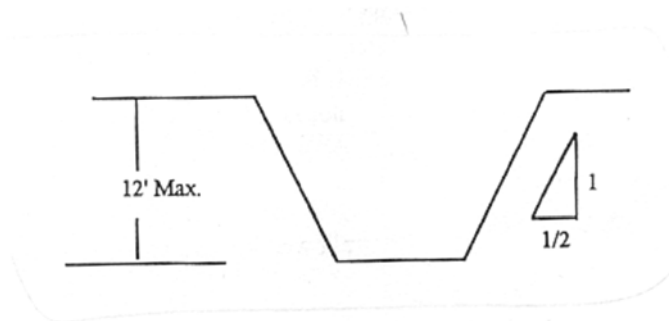
B - 1.1 Excavations made in Type A soil.

1. All simple slope excavation 20 feet or less in depth shall have a maximum allowable slope of 3/4:1.



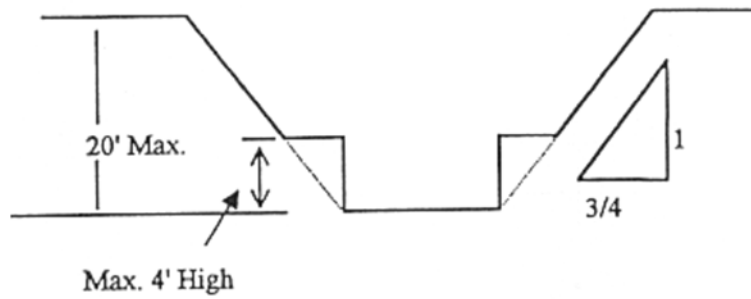
SIMPLE SLOPE - GENERAL

Exception: Simple slope excavations which are open 24 hours or less (short term) and which are 12 feet or less in depth shall have a maximum allowable slope of 1/2:1.

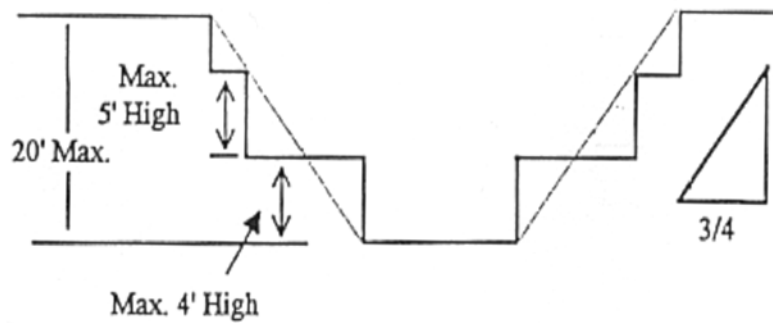


SIMPLE SLOPE - SHORT TERM

2. All benched excavations 20 feet or less in depth shall have a maximum allowable slope of $3/4$ to 1 and maximum bench dimensions as follows:

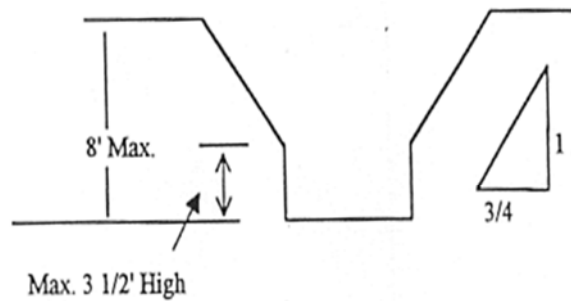


SIMPLE BENCH



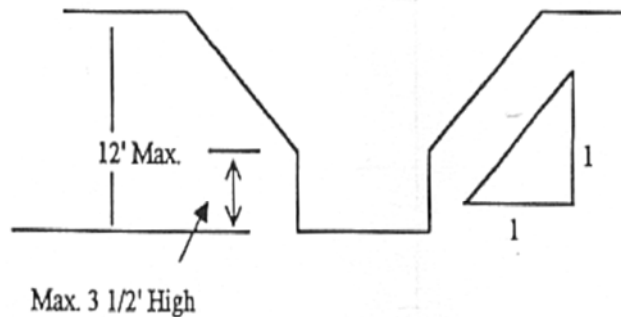
MULTIPLE BENCH

3. All excavations 8 feet or less in depth which have unsupported vertically sided lower portions shall have a maximum vertical side of 3 1/2 feet.



**UNSUPPORTED VERTICALLY SIDED LOWER PORTION
MAXIMUM 8 FEET DEEP**

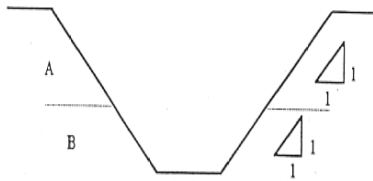
All excavations more than 8 feet but not more than 12 feet in depth with unsupported vertically sided lower portions shall have a maximum allowable slope of 1:1 and a maximum vertical side of 3 1/2 feet.



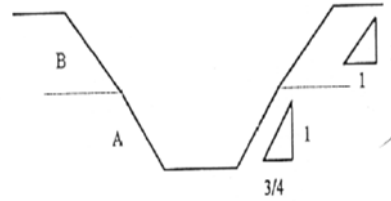
**UNSUPPORTED VERTICALLY SIDED LOWER PORTION
MAXIMUM 12 FEET DEEP**

B - 1.4 Excavations Made in Layered Soils

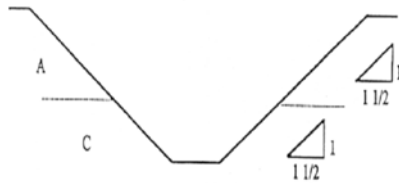
1. All excavations 20 feet or less in depth made in layered soils shall have a maximum allowable slope for each layer as set forth below.



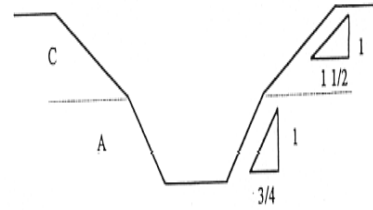
A OVER B



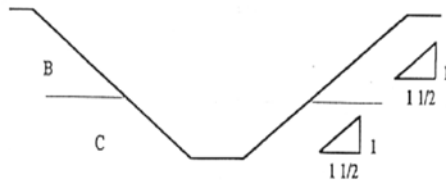
B OVER A



A OVER C



C OVER A



B OVER C

2. All other sloped excavations shall be in accordance with the other options permitted in 1926.652(b).

Standard Number: 1926 Subpart P App C
Standard Title: Timber Shoring for Trenches
Subpart Number: P
Subpart Title: Excavations

- a. Scope. This appendix contains information that can be used when timber shoring is provided as a method of protection from cave-ins in trenches that do not exceed 20 feet (6.1 m) in depth. This appendix must be used when design of timber shoring protective systems is to be performed in accordance with 1926.652(c)(1). Other timber shoring configurations; other systems of support such as hydraulic and pneumatic systems; and other protective systems such as sloping, benching, shielding, and freezing systems must be designed in accordance with the requirements set forth in 1926.652(b) and 1926.652(c).
- b. Soil Classification. In order to use the data presented in this appendix, the soil type or types in which the excavation is made must first be determined using the soil classification method set forth in appendix A of subpart P of this part.
- c. Presentation of Information. Information is presented in several forms as follows:
 - 1 Information is presented in tabular form in Tables C-1.1, C-1.2 and C-1.3, and Tables C-2.1, C-2.2 and C-2.3 following paragraph (g) of the appendix. Each table presents the minimum sizes of timber members to use in a shoring system, and each table contains data only for the particular soil type in which the excavation or portion of the excavation is made. The data are arranged to allow the user the flexibility to select from among several acceptable configurations of members based on varying the horizontal spacing of the crossbraces. Stable rock is exempt from shoring requirements and therefore, no data are presented for this condition.
 - 2 Information concerning the basis of the tabular data and the limitations of the data is presented in paragraph (d) of this appendix, and on the tables themselves.
 - 3 Information explaining the use of the tabular data is presented in paragraph (e) of this appendix.
 - 4 Information illustrating the use of the tabular data is presented in paragraph (f) of this appendix.
 - 5 Miscellaneous notations regarding Tables C-1.1 through C-1.3 and Tables C-2.1 through C-2.3 are presented in paragraph (g) of this Appendix.
- d. Basis and limitations of the data.
 - 1 Dimensions of timber members.
 - i. The sizes of the timber members listed in Tables C-1.1 through C-1.3 are taken from the National Bureau of Standards (NBS) report, "Recommended Technical Provisions for Construction Practice in Shoring and Sloping of Trenches and Excavations." In addition, where NBS did not recommend specific sizes of members, member sizes are based on an analysis of the sizes required for use by existing codes and on empirical practice.
 - ii. The required dimensions of the members listed in Tables C-1.1 through C-1.3 refer to actual dimensions and not nominal dimensions of the timber. Employers wanting to use nominal size shoring are directed to Tables C-2.1 through C-2.3, or have this

choice under 1926.652(c)(3), and are referred to The Corps of engineers, The Bureau of Reclamation or data from other acceptable sources.

2 Limitation of application.

- i. It is not intended that the timber shoring specification apply to every situation that may be experienced in the field. These data were developed to apply to the situations that are most commonly experienced in current trenching practice. Shoring systems for use in situations that are not covered by the data in this appendix must be designed as specified in 1926.652(c).
- ii. When any of the following conditions are present, the members specified in the tables are not considered adequate. Either an alternate timber shoring system must be designed or another type of protective system designed in accordance with 1926.652.
 - a) When loads imposed by structures or by stored material adjacent to the trench weigh in excess of the load imposed by a two-foot soil surcharge. The term “adjacent” as used here means the area within a horizontal distance from the edge of the trench equal to the depth of the trench.
 - b) When vertical loads imposed on cross braces exceed a 240-pound gravity load distributed on a one-foot section of the center of the crossbrace.
 - c) When surcharge loads are present from equipment weighing in excess of 20,000 pounds.
 - d) When only the lower portion of a trench is shored and the remaining portion of the trench is sloped or benched unless: The sloped portion is sloped at an angle less steep than three horizontal to one vertical; or the members are selected from the tables for use at a depth which is determined from the top of the overall trench, and not from the toe of the sloped portion.

e. Use of Tables.

The members of the shoring system that are to be selected using this information are the cross braces, the uprights, and the wales, where wales are required. Minimum sizes of members are specified for use in different types of soil. There are six tables of information, two for each soil type. The soil type must first be determined in accordance with the soil classification system described in appendix A to subpart P of part 1926. Using the appropriate table, the selection of the size and spacing of the members is then made. The selection is based on the depth and width of the trench where the members are to be installed and, in most instances, the selection is also based on the horizontal spacing of the crossbraces. Instances where a choice of horizontal spacing of crossbracing is available, the horizontal spacing of the crossbraces must be chosen by the user before the size of any member can be determined. When the soil type, the width and depth of the trench, and the horizontal spacing of the crossbraces are known, the size and vertical spacing of the crossbraces are known, the size and vertical spacing of the crossbraces, the size and vertical spacing of the wales, and the size and horizontal spacing of the uprights can be read from the appropriate table.

f. Examples to Illustrate the Use of Tables C-1.1 through C-1.3.

1 Example 1.

A trench dug in Type A soil is 13 feet deep and five feet. From Table C-1.1, for acceptable arrangements of timber can be used.

Arrangement #1

Space 4X4 crossbraces at six feet horizontally and four feet vertically.
Wales are not required. Space 3X8 uprights at six feet horizontally.
This arrangement is commonly called “skip shoring.”

Arrangement #2

Space 4X6 crossbraces at eight feet horizontally and four feet vertically.
Space 8X8 wales at four feet vertically. Space 2X6 uprights at four feet horizontally.

Arrangement #3

Space 6X6 crossbraces at 10 feet horizontally and four feet vertically.
Space 8X10 wales at four feet vertically. Space 2X6 uprights at five feet horizontally.

Arrangement #4

Space 6X6 crossbraces at 12 feet horizontally and four feet vertically.
Space 10X10 wales at four feet vertically. Space 3X8 uprights at six feet horizontally.

2 Example 2.

A trench dug in Type B soil is 13 feet deep and five feet wide. From Table C-1.2 three acceptable arrangements of members are listed.

Arrangement #1

Space 6X6 crossbraces at six feet horizontally and five feet vertically.
Space 8X8 wales at five feet vertically. Space 2X6 uprights at two feet horizontally.

Arrangement #2

Space 6X8 crossbraces at eight feet horizontally and five feet vertically.
Space 10X10 wales at five feet vertically. Space 2X6 uprights at two feet horizontally.

Arrangement #3

Space 8X8 crossbraces at 10 feet horizontally and five feet vertically.
Space 10X12 wales at five feet vertically. Space 2X6 uprights at two feet vertically.

3 Example 3.

A trench dug in Type C soil is 13 feet deep and five feet wide. From Table C-1.3 two acceptable arrangements of members can be used.

Arrangement #1

Space 8X8 crossbraces at six feet horizontally and five feet vertically.
Space 10X12 wales at five feet vertically. Position 2X6 uprights as closely together as possible. If water must be retained use special tongue and groove uprights to form tight sheeting.

Arrangement #2

Space 8X10 crossbraces at eight feet horizontally and five feet vertically. Space 12X12 wales at five feet vertically. Position 2X6 uprights in a close sheeting configuration unless water pressure must be resisted. Tight sheeting must be used where water must be retained.

4 Example 4.

A trench dug in Type C soil is 20 feet deep and 11 feet wide. The size and spacing of members for the section of trench that is over 15 feet in depth is determined using Table C-1.3. Only one arrangement of members is provided.

Space 8X10 crossbraces at six feet horizontally and five feet vertically.
Space 12X12 wales at five feet vertically. Use 3X6 tight sheeting. Use of Tables C-2.1 through C-2.3 would follow the same procedures.

g. Notes for all Tables.

- 1 Member sizes at spacings other than indicated are to be determined as specified in 1926.652(c), "Design of Protective Systems."
- 2 When conditions are saturated or submerged use Tight Sheeting. Tight Sheeting refers to the use of specially-edged timber planks (e.g., tongue and groove) at least three inches thick, steel sheet piling, or similar construction that when driven or placed in position provide a tight wall to resist the lateral pressure of water and to prevent the loss of backfill material. Close Sheeting refers to the placement of planks side-by-side allowing as little space as possible between them.
- 3 All spacing indicated is measured center to center.
- 4 Wales to be installed with greater dimension horizontal.
- 5 If the vertical distance from the center of the lowest crossbrace to the bottom of the trench exceeds two and one-half feet, uprights shall be firmly embedded or a mudsill shall be used. Where uprights are embedded, the vertical distance from the center of the lowest crossbrace to the bottom of the trench shall not exceed 36 inches. When mudsills are used, the vertical distance shall not exceed 42 inches. Mudsills are wales that are installed at the tow of the trench side.
- 6 Trench jacks may be used in lieu of or in combination with timber crossbraces.
- 7 Placement of crossbraces. When the vertical spacing of crossbraces is four feet, place the top crossbrace no more than two feet below the top of the trench. When the vertical spacing of crossbraces is five feet, place the top crossbrace no more than 2.5 feet below the top of the trench.

TABLE C-1.1

Timber Trench Shoring -- Minimum Requirements *
Soil Type A Pa = 25 X H + 72 psf (2 ft Surcharge)

Depth of Trench (feet)	Size (Actual) and Spacing of Members **													
	Cross Braces							Wales		Uprights				
	Horizontal Spacing (ft)	Width of Trench (feet)					Vertical Spacing (ft)	Size (in)	Vertical Spacing (ft.)	Max. Allow. Horiz. Spacing (ft.)				
		Up to 4	Up to 6	Up to 9	Up to 12	Up to 15				Close	4	5	6	8
5 to 10	Up to 6	4x4	4x4	4x6	6x6	6x6	4	Not Required	----				2x6	
	Up to 8	4x4	4x4	4x6	6x6	6x6	4	Not Required	----					2x8
	Up to 10	4x6	4x6	4x6	6x6	6x6	4	8x8	4			2x6		
	Up to 12	4x6	4x6	6x6	6x6	6x6	4	8x8	4				2x6	
10 to 15	Up to 6	4x4	4x4	4x6	6x6	6x6	4	Not Required	----				3x8	
	Up to 8	4x6	4x6	6x6	6x6	6x6	4	8x8	4		2x6			
	Up to 10	6x6	6x6	6x6	6x8	6x8	4	8x10	4			2x6		
	Up to 12	6x6	6x6	6x6	6x8	6x8	4	10x10	4				3x8	
15 to 20	Up to 6	6x6	6x6	6x6	6x8	6x8		6x8	4	3x6				
	Up to 8	6x6	6x6	6x6	6x8	6x8	4	8x8	4	3x6				
	Up to 10	8x8	8x8	8x8	8x8	8x10	4	8x10	4	3x6				
	Up to 12	8x8	8x8	8x8	8x8	8x10	4	8x10	4	3x6				
Over 20	See Note 1													

* Mixed oak or equivalent with a bending strength not less than 850 psi.

** Manufactured members of equivalent strength may be substituted for wood.

TABLE C-1.2

Timber Trench Shoring -- Minimum Requirements *
Soil Type B Pa = 45 X H + 72 psf (2 ft Surcharge)

Depth of Trench (feet)	Size (Actual) and Spacing of Members **													
	Cross Braces						Wales			Uprights				
	Horizontal Spacing (ft)	Width of Trench (feet)					Vertical Spacing (ft)	Size (in)	Vertical Spacing (ft.)	Max. Allow. Horiz. Spacing (ft.)				
		Up to 4	Up to 6	Up to 9	Up to 12	Up to 15				Close	4	5	6	8
5 to 10	Up to 6	4x6	4x4	4x6	6x6	6x6	4	Not Required	----				2x6	
	Up to 8	4x4	4x4	4x6	6x6	6x6	4	Not Required	----					2x8
	Up to 10	4x6	4x6	4x6	6x6	6x6	4	8x8	4			2x6		
	Up to 12	4x6	4x6	6x6	6x6	6x6	4	8x8	4				2x6	
10 to 15	Up to 6	4x4	4x4	4x6	6x6	6x6	4	Not Required	----				3x8	
	Up to 8	4x6	4x6	6x6	6x6	6x6	4	8x8	4		2x6			
	Up to 10	6x6	6x6	6x6	6x8	6x8	4	8x10	4			2x6		
	Up to 12	6x6	6x6	6x6	6x8	6x8	4	10x10	4				3x8	
15 to 20	Up to 6	6x6	6x6	6x6	6x8	6x8		6x8	4	3x6				
	Up to 8	6x6	6x6	6x6	6x8	6x8	4	8x8	4	3x6				
	Up to 10	8x8	8x8	8x8	8x8	8x10	4	8x10	4	3x6				
	Up to 12	8x8	8x8	8x8	8x8	8x10	4	8x10	4	3x6				
Over 20	See Note 1													

TABLE C-1.3

Timber Trench Shoring -- Minimum Requirements *
Soil Type C Pa = 80 X H + 72 psf (2 ft Surcharge)

Size (Actual) and Spacing of Members **

Depth of Trench (feet)	Size (Actual) and Spacing of Members **													
	Cross Braces							Wales		Uprights				
	Horizontal Spacing (ft)	Width of Trench (feet)					Vertical Spacing (ft)	Size (in)	Vertical Spacing (ft.)	Max. Allow. Horizontal. Spacing (ft.)				
		Up to 4	Up to 6	Up to 9	Up to 12	Up to 15				Close				
5 to 10	Up to 6	6x8	6x8	6x8	8x8	8x8	5	8x10	5	2x6				
	Up to 8	8x8	8x8	8x8	8x8	8x10	5	10x12	5	2x6				
	Up to 10	8x10	8x10	8x10	8x10	10x10	5	12x12	5	2x6				
	See Note 1													
10 to 15	Up to 6	8x8	8x8	8x8	8x8	8x10	5	10x12	5	2x6				
	Up to 8	8x10	8x10	8x10	8x10	10x10	5	12x12	5	2x6				
	See Note 1													
	See Note 1													
15 to 20	Up to 6	8x10	8x10	8x10	8x10	10x10	5	12x12	5	3x6				
	See Note 1													
	See Note 1													
	See Note 1													
Over 20	See Note 1													

* Mixed oak or equivalent with a bending strength not less than 850 psi.

** Manufactured members of equivalent strength may be substituted for wood.

TABLE C-2.1														
Timber Trench Shoring -- Minimum Requirements *														
Soil Type A Pa = 25 X H + 72 psf (2 ft Surcharge)														
Depth of Trench (feet)	Size (Actual) and Spacing of Members **													
	Cross Braces							Wales		Uprights				
	Horizontal Spacing (ft)	Width of Trench (feet)					Vertical Spacing (ft)	Size (in)	Vertical Spacing (ft.)	Max. Allow. Horiz. Spacing (ft.)				
		Up to 4	Up to 6	Up to 9	Up to 12	Up to 15				Close	4	5	6	8
5 to 10	Up to 6	4x4	4x4	4x4	4x4	4x6	4	Not Required	Not Required				4x6	
	Up to 8	4x4	4x4	4x4	4x6	4x6	4	Not Required	Not Required					4x8
	Up to 10	4x6	4x6	4x6	6x6	6x6	4	8x8	4			4x6		
	Up to 12	4x6	4x6	4x6	6x6	6x6	4	8x8	4				4x6	
10 to 15	Up to 6	4x4	4x4	4x4	6x6	6x6	4	Not Required	Not Required				4x10	
	Up to 8	4x6	4x6	4x6	6x6	6x6	4	6x8	4		4x6			
	Up to 10	6x6	6x6	6x6	6x6	6x6	4	8x8	4			4x8		
	Up to 12	6x6	6x6	6x6	6x6	6x6	4	8x10	4		4x6		4x10	
15 to 20	Up to 6	6x6	6x6	6x6	6x6	6x6	4	6x8	4	3x6				
	Up to 8	6x6	6x6	6x6	6x8	6x8	4	8x8	4	3x6	4x12			
	Up to 10	6x6	6x6	6x6	6x6	6x8	4	8x10	4	3x6				
	Up to 12	6x6	6x6	6x6	6x8	6x8	4	8x12	4	3x6	4x12			
Over 20	See Note 1													

* Douglas fir or equivalent with a bending strength not less than 1500 psi.

** Manufactured members of equivalent strength may be substituted for wood.

TABLE C-2.2														
Timber Trench Shoring -- Minimum Requirements *														
Soil Type B Pa = 45 X H + 72 psf (2 ft Surcharge)														
Depth of Trench (feet)	Size (Actual) and Spacing of Members **													
	Cross Braces							Wales		Uprights				
	Horizontal Spacing (ft)	Width of Trench (feet)					Vertical Spacing (ft)	Size (in)	Vertical Spacing (ft)	Max. Allow. Horiz. Spacing (ft.)				
		Up to 4	Up to 6	Up to 9	Up to 12	Up to 15				Close	2	3	4	6
5 to 10	Up to 6	4x6	4x6	4x6	6x6	6x6	5	6x8	5			3x12 4x8		4x12
	Up to 8	4x6	4x6	6x6	6x6	6x6	5	8x8	5		3x8		4x8	
	Up to 10	4x6	4x6	6x6	6x6	6x8	5	8x10	5			4x8		
	See Note 1													
10 to 15	Up to 6	6x6	6x6	6x6	6x8	6x8	5	8x8	5	3x6	4x10			
	Up to 8	6x8	6x8	6x8	8x8	8x8	5	10x10	5	3x6	4x10			
	Up to 10	6x8	6x8	8x8	8x8	8x8	5	10x12	5	3x6	4x10			
	See Note 1													
15 to 20	Up to 6	6x8	6x8	6x8	6x8	8x8	5	8x10	5	4x6				
	Up to 8	6x8	6x8	6x8	8x8	8x8	5	10x12	5	4x6				
	Up to 10	8x8	8x8	8x8	8x8	8x8	5	12x12	5	4x6				
	See Note 1													
Over 20	See Note 1													

* Douglas fir or equivalent with a bending strength not less than 1500 psi.

** Manufactured members of equivalent strength may be substituted for wood.

TABLE C-2.3														
Timber Trench Shoring -- Minimum Requirements *														
Soil Type C Pa = 80 X H + 72 psf (2 ft Surcharge)														
Depth of Trench (feet)	Size (Actual) and Spacing of Members **													
	Horizontal Spacing (ft)	Cross Braces					Vertical Spacing (ft)	Wales		Vertical Spacing (ft.)	Uprights			
		Width of Trench (feet)						Size (in)	Max. Allow. Horiz. Spacing (ft.)					
		Up to 4	Up to 6	Up to 9	Up to 12	Up to 15					Close			
5 to 10	Up to 6	6x6	6x6	6x6	6x6	8x8	5	8x10	5	3x6				
	Up to 8	6x6	6x6	6x6	8x8	8x8	5	10x10	5	3x6				
	Up to 10	6x6	6x6	8x8	8x8	8x8	5	10x12	5	3x6				
	See Note 1													
10 to 15	Up to 6	6x8	6x8	6x8	8x8	8x8	5	10x12	5	4x6				
	Up to 8	8x8	8x8	8x8	8x8	8x8	5	12x12	5	4x6				
	See Note 1													
	See Note 1													
15 to 20	Up to 6	8x8	8x8	8x8	8x10	8x10	5	10x12	5	4x6				
	See Note 1													
	See Note 1													
	See Note 1													
Over 20	See Note 1													

* Douglas fir or equivalent with a bending strength not less than 1550 psi.

** Manufactured members of equivalent strength may be substituted for wood.

Standard Number: 1926 Subpart P App D

Standard Title: Aluminum Hydraulic Shoring for Trenches

Subpart Number: P

Subpart Title: Excavations

- a. Scope. This appendix contains information that can be used when aluminum hydraulic shoring is provided as a method of protection against cave-ins in trenches that do not exceed 20 feet (6.1m) in depth. This appendix must be used when design of the aluminum hydraulic protective system cannot be performed in accordance with 1926.652(c) (2).
- b. Soil Classification. In order to use data presented in this appendix, the soil type or types in which the excavation is made must first be determined using the soil classification method set forth in appendix A of subpart P of part 1926.
- c. Presentation of Information. Information is presented in several forms as follows:
 - 1 Information is presented in tabular form in Tables D-1.1, D-1.2, D-1.3 and D-1.4. Each table presents the maximum vertical and horizontal spacing that may be used with various aluminum member sizes and various hydraulic cylinder sizes. Each table contains data only for the particular soil type in which the excavation or portion of the excavation is made. Tables D-1.1 and D-1.2 are for vertical shores in Types A and B soil. Tables D-1.3 and D-1.4 are for horizontal waler systems in Types B and C soil.
 - 2 Information concerning the basis of the tabular data and the limitations of the data is presented in paragraph (d) of this appendix.
 - 3 Information explaining the use of the tabular data is presented in paragraph (e) of this appendix.
 - 4 Information illustrating the use of the tabular data is presented in paragraph (f) of this appendix.
 - 5 Miscellaneous notations (Footnotes) regarding Table D-1.1 through D-1.4 are presented in paragraph (g) of this appendix.
 - 6 Figures, illustrating typical installations of hydraulic shoring, are included just prior to the Tables. The illustrations page is entitled "Aluminum Hydraulic Shoring: Typical Installations."
- d. Basis and limitations of the data.
 - 1 Vertical shore rails and horizontal wales are those that meet the Section Modulus requirements in the D-1 Tables. Aluminum material is 6061-T6 or material of equivalent strength and properties.
 - 2 Hydraulic cylinders specifications.
 - i. 2-inch cylinders shall be a minimum 2-inch inside diameter with a minimum safe working capacity of no less than 18,000 pounds axial compressive load at maximum extension. Maximum extension is to include full range of cylinder extensions as recommended by product manufacturer.
 - ii. 3-inch cylinders shall be a minimum 3-inch inside diameter with a safe working capacity of not less than 30,000 pounds axial compressive load at extensions as recommended by product manufacturer.

3 Limitation of application.

- i. It is not intended that the aluminum hydraulic specification apply to every situation that may be experienced in the field. These data were developed to apply to the situations that are most commonly experienced in current trenching practice. Shoring systems for use in situations that are not covered by the data in this appendix must be otherwise designed as specified in 1926.652(c).
- ii. When any of the following conditions are present, the members specified in the Tables are not considered adequate. In this case, an alternative aluminum hydraulic shoring system or other type of protective system must be designed in accordance with 1926.652.
 - (A) When vertical loads imposed on cross braces exceed a 100 Pound gravity load distributed on a one foot section of the center of the hydraulic cylinder.
 - (B) When surcharge loads are present from equipment weighing in excess of 20,000 pounds.
 - (C) When only the lower portion of a trench is shored and the remaining portion of the trench is sloped or benched unless: The sloped portion is sloped at an angle less steep than three horizontal to one vertical; or the members are selected from the tables for use at a depth which is determined from the top of the overall trench, and not from the toe of the sloped portion.
- e. Use of Tables D-1.1, D-1.2, D-1.3 and D-1.4. The members of the shoring system that are to be selected using this information are the hydraulic cylinders, and either the vertical shores or the horizontal wales. When a waler system is used the vertical timber sheeting to be used is also selected from these tables. The Tables D-1.1 and D-1.2 for vertical shores are used in Type A and B soils that do not require sheeting. Type B soils that may require sheeting, and Type C soils that always require sheeting, are found in the horizontal wale Tables D-1.3 and D-1.4. The soil type must first be determined in accordance with the soil classification system described in appendix A to subpart P of part 1926. Using the appropriate table, the selection of the size and spacing of the members is made. The selection is based on the depth and width of the trench where the members are to be installed. In these tables the vertical spacing is held constant at four feet on center. The tables show the maximum horizontal spacing of cylinders allowed for each size of wale in the waler system tables, and in the vertical shore tables, the hydraulic cylinder horizontal spacing is the same as the vertical shore spacing.
- f. Example to Illustrate the Use of the Tables:
 - 1 Example 1:

A trench dug in Type A soil is 6 feet deep and 3 feet wide. From Table D-1.1: Find vertical shores and 2 inch diameter cylinders spaced 8 feet on center (o.c.) horizontally and 4 feet on center (o.c.) vertically. (See Figures 1 & 3 for typical installations.)
 - 2 Example 2:

A trench is dug in Type B soil that does not require sheeting, 13 feet deep and 5 feet wide. From Table D-1.2: Find vertical shores and 2 inch diameter cylinders spaced 6.5 feet o.c. horizontally and 4 feet o.c. vertically. (See Figures 1 & 3 for typical installations.)

3 Example 3:

A trench is dug in Type B soil that does not require sheeting, but does experience some minor raveling of the trench face. The trench is 16 feet deep and 9 feet wide. From Table D-1.2: Find vertical shores and 2 inch diameter cylinder (with special oversleeves as designated by Footnote #2) spaced 5.5 feet o.c. horizontally and 4 feet o.c. vertically. Plywood (per Footnote (g) (7) to the D-1 Table) should be used behind the shores. (See Figures 2 & 3 for typical

4 Example 4:

A trench is dug in previously disturbed Type B soil, with characteristics of a Type C soil, and will require sheeting. The trench is 18 feet deep, and 12 feet wide. 8 foot horizontal spacing between cylinders is desired for working space. From Table D-1.3: Find horizontal wale with a section modulus of 14.0 spaced at 4 feet o.c. vertically and 3 inch diameter cylinder spaced at 9 feet maximum o.c. horizontally, 3 x 12 timber sheeting is required at close spacing vertically. (See Figure 4 for typical installation.)

5 Example 5

A trench is dug in Type C soil, 9 feet deep and 4 feet wide. Horizontal cylinder spacing in excess of 6 feet is desired for working space. From Table D-1.4: Find horizontal wale with a section modulus of 7.0 and 2 inch diameter cylinders spaced at 6.5 feet o.c. horizontally. Or, find horizontal wale with a 14.0 section modulus and 3 inch diameter cylinder spaced at 10 feet o.c. horizontally. Both wales are spaced 4 feet o.c. vertically, 3 x 12 timber sheeting is required at close spacing vertically. (See Figure 4 for typical installation.)

g. Footnotes, and general notes, for Tables D-1.1, D-1.2, D-1.3, and D-1.4.

- 1 For applications other than those listed in the tables, refer to 1926.652(c)(2) for use of manufacturer's tabulated data. For trench depths in excess of 20 feet, refer to 1926.652(c)(2) and 1926.652(c)(3).
- 2 2 inch diameter cylinders, at this width, shall have structural steel tube (3.5 x 3.5 x 0.1875) oversleeves, or structural oversleeves of manufacturer's specification, extending the full, collapsed length.
- 3 Hydraulic cylinders capacities
 - i. 2-inch cylinders shall be a minimum 2-inch inside diameter with a safe working capacity of not less than 18,000 pounds axial compressive load at maximum extension. Maximum extension is to include full range of cylinder extensions as recommended by product manufacturer.
 - ii. 3-inch cylinders shall be a minimum 3-inch inside diameter with a safe work capacity of not less than 30,000 pounds axial compressive load at maximum extension. Maximum extension is to include full range of cylinder extensions as recommended by product manufacturer.
- 4 All spacing indicated is measured center to center.
- 5 Vertical shoring rails shall have a minimum section modulus of 0.40 inch.
- 6 When vertical shores are used, there must be a minimum of three shores spaced equally, horizontally, in a group.

- 7 Plywood shall be 1.125 inch thick softwood or 0.75 inch thick, 14 ply arctic white birch (Finland form). Please note that plywood is not intended as a structural member, but only for prevention of local raveling (sloughing of the trench face) between shores.
- 8 See appendix C for timber specifications.
- 9 Wales are calculated for simple span conditions.
- 10 See appendix D, item (d), for basis and limitations of the data.

ALUMINUM HYDRAULIC SHORING TYPICAL INSTALLATIONS

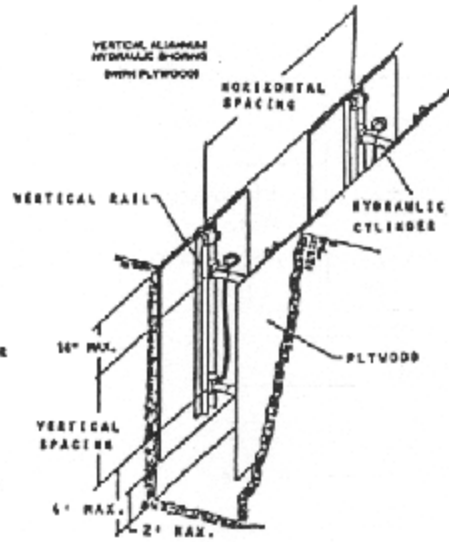
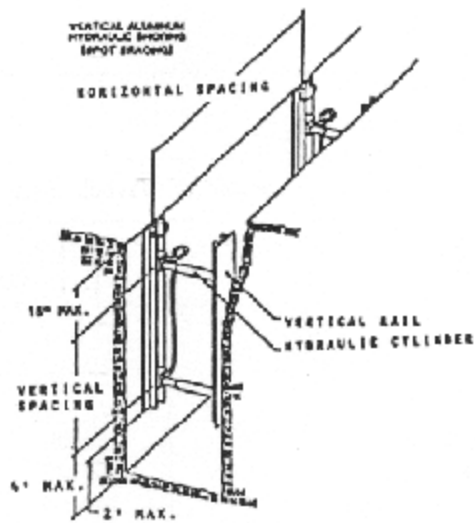


Figure No. 1 - Vertical aluminum hydraulic shoring (spot bracing)
Figure No. 2 - Vertical aluminum hydraulic shoring (with plywood)

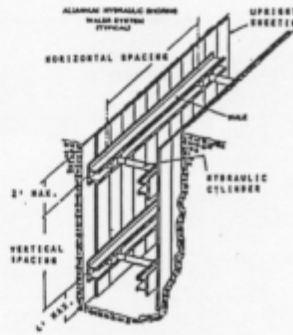
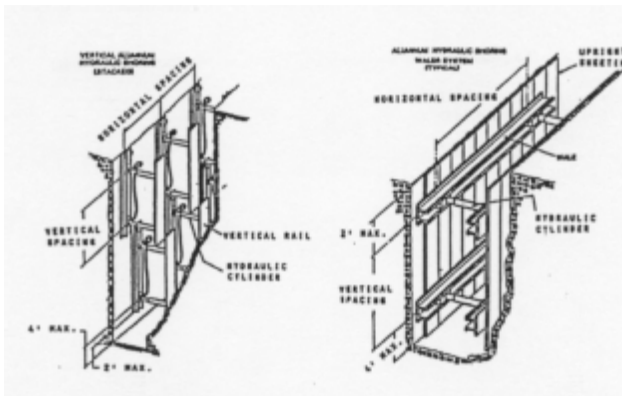


Figure No. 3 - Vertical aluminum hydraulic shoring (stacked)
Figure No. 4 - Aluminum hydraulic shoring - Waler System (typical)

Table D-1.1
Aluminum Hydraulic Shoring
Vertical Shores
For Soil Type A

Depth of Trench (Feet)	Hydraulic Cylinders				
	Maximum Horizontal Spacing (Feet)	Maximum Vertical Spacing (Feet)	Width of Trench (Feet)		
			Up to 8	Over 8 Up to 12	Over 12 up to 15
Over 5 Up to 10	8	4	2 inch diameter	2 inch diameter Note (2)	2 inch diameter
Over 10 Up to 15	8				
Over 15 Up to 20	7				
Over 20	Note (1)				

Footnote to table and general notes on hydraulic shoring are found in Appendix D, Item (g)

Note (1): See Appendix D, Item (g) (1)

Note (2): See Appendix D; Item (g) (2)

Table D-1.2
Aluminum Hydraulic Shoring
Vertical Shores
For Soil Type B

Depth of Trench (Feet)	Hydraulic Cylinders				
	Maximum Horizontal Spacing (Feet)	Maximum Vertical Spacing (Feet)	Width of Trench (Feet)		
			Up to 8	Over 8 up to 12	Over 12 up to 15
Over 5 Up to 10	8	4	2 inch diameter	2 inch diameter Note (2)	2 inch diameter
Over 10 Up to 15	6.5				
Over 15 Up to 20	5.5				
Over 20	Note (1)				

Footnote to table and general notes on hydraulic shoring are found in Appendix D, Item (g)

Note (1): See Appendix D; Item (g) (1)

Note (2): See Appendix D; Item (g) (2)

Table D-1.3
Aluminum Hydraulic Shoring
Waler Systems
For Soil Type B

Depth of Trench (Feet)	Wales		Hydraulic Cylinders						Timber Uprights		
	Vertical Spacing (Feet)	Section Modulus (in³)	Width of Trench (Feet)						Max. Horizontal Spacing (On Center)		
			Up to 8		Over 8 Up to 12		Over 12 Up to 15		Solid Sheet	2 Ft	3 Ft
			Horiz. Spacing	Cylldr. Dia.	Horiz. Spacing.	Cylldr. Dia.	Horiz. Spacing.	Cylldr. Dia.			
Over 5 Up To 10	4	3.5	8.0	2 in.	8.0	2 in. Note 2	8.0	3 in.	—	—	3x 12
		7	9.0	2 in.	9.0	2 in. Note 2	9.0	3 in.			
		14	12.0	3 in.	12.0	3 in.	12.0	3 in.			
Over 10 Up To 15	4	3.5	6.0	2 in.	6.0	2 in. Note 2	6.0	3 in.	—	3x 12	—
		7	8.0	3 in.	8.0	3 in.	8.0	3 in.			
		14	10.0	3 in.	10.0	3 in.	10.0	3 in.			
Over 15 Up to 20	4	3.5	5.5	2 in.	5.5	2 in. Note 2	5.5	3 in.	3x 12	—	—
		7	6.0	3 in.	6.0	3 in.	6.0	3 in.			
		14	9.0	3 in.	9.0	3 in.	9.0	3 in.			
Over 20	Note (1)										

Footnote to tables and general notes on hydraulic shoring are found in Appendix D, Item (g)

Note (1): See Appendix D; Item (g) (1)

Note (2): See Appendix D; Item (g) (2)

* Consult product manufacturer and/or qualified engineer for Section Modulus of available wales.

Table D-1.4
Aluminum Hydraulic Shoring
Waler Systems
For Soil Type C

Depth of Trench (Feet)	Wales		Hydraulic Cylinders						Timber Uprights		
	Vertical Spacing (Feet)	Section Modulus (in ³)	Width of Trench (Feet)						Max. Horizontal Spacing (On Center)		
			Up to 8		Over 8 Up to 12		Over 12 Up to 15		Solid Sheet	2 Ft	3 Ft
			Horiz. Spacing.	Cylldr. Dia.	Horiz. Spacing.	Cylldr. Dia.	Horiz. Spacing.	Cylldr. Dia.			
Over 5 Up To 10	4	3.5	6.0	2 in.	6.0	2 in. Note 2	6.0	3 in.	3 x 12	—	—
		7	6.5	2 in.	6.5	2 in. Note 2	6.5	3 in.			
		14	10.0	3 in.	10.0	3 in.	10.0	3 in.			
Over 10 Up To 15	4	3.5	4.0	2 in.	4.0	2 in. Note 2	4.0	3 in.	3 x 12	—	—
		7	5.5	3 in.	5.5	3 in.	5.5	3 in.			
		14	8.0	3 in.	8.0	3 in.	8.0	3 in.			
Over 15 Up to 20	4	3.5	3.5	2 in.	3.5	2 in. Note 2	3.5	3 in.	3 x 12	—	—
		7	5.0	3 in.	5.0	3 in.	5.0	3 in.			
		14	6.0	3 in.	6.0	3 in.	6.0	3 in.			
Over 20	Note (1)										

Footnote to tables and general notes on hydraulic shoring are found in Appendix D, Item (g)

Note (1): See Appendix D; Item (g) (1)

Note (2): See Appendix D; Item (g) (2)

* Consult product manufacturer and/or qualified engineer for Section Modulus of available wales.

**Appendix E to 1926 Subpart P -
Alternatives to Timber Shoring**

Figure 1 - Aluminum Hydraulic Shoring

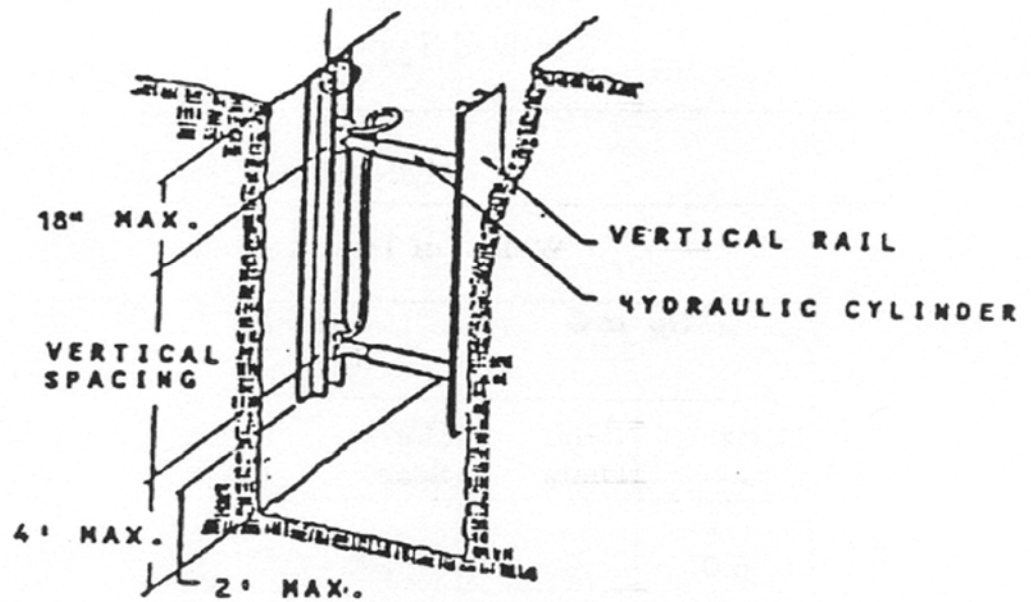


Figure 2: Pneumatic/hydraulic Shoring

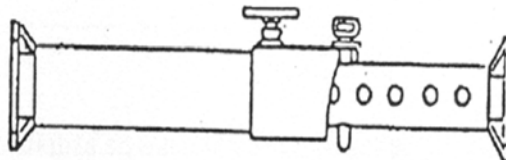


Figure 3. Trench Jacks (Screw Jacks)

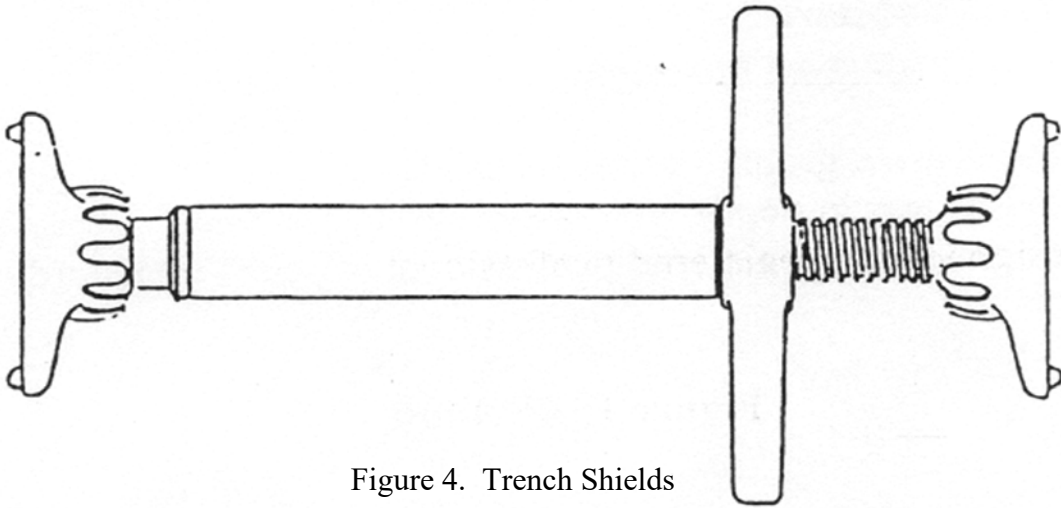
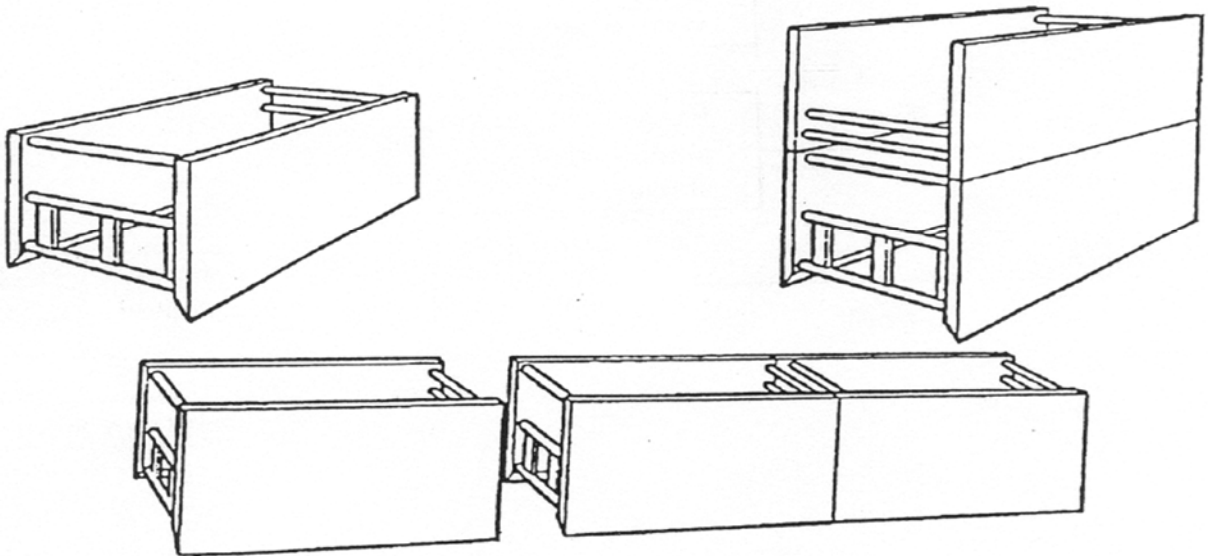


Figure 4. Trench Shields



Appendix F to 1926 Subpart P

Selection of Protective Systems

The following figures are a graphic summary of the requirements contained in subpart P for excavations 20 feet or less in depth. Protective systems for use in excavations more than 20 feet in depth must be designed by a registered professional engineer in accordance with 1926.652(b) and (c).

Figure 1 - Preliminary Decisions

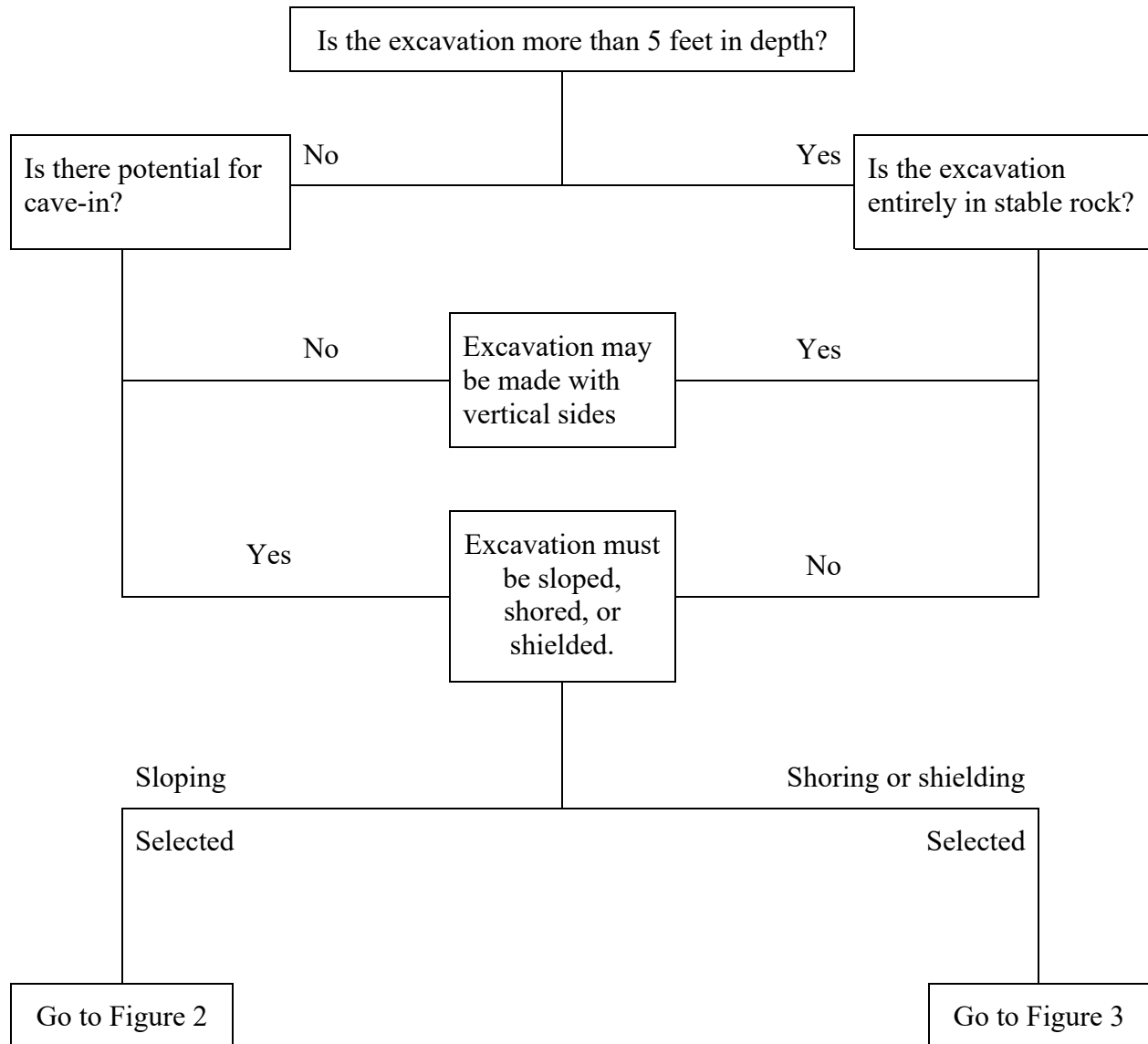


Figure 2 - Sloping Options

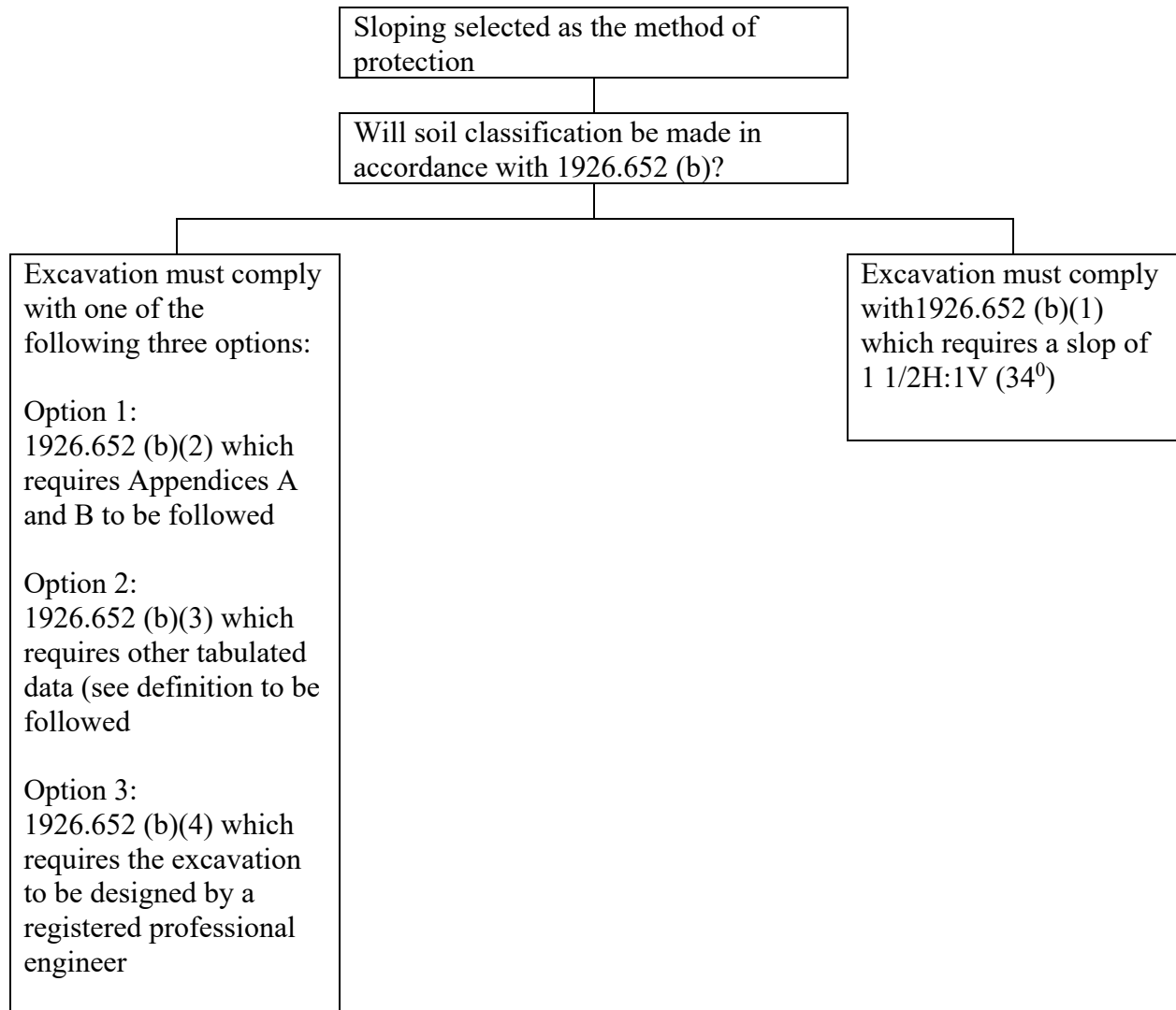
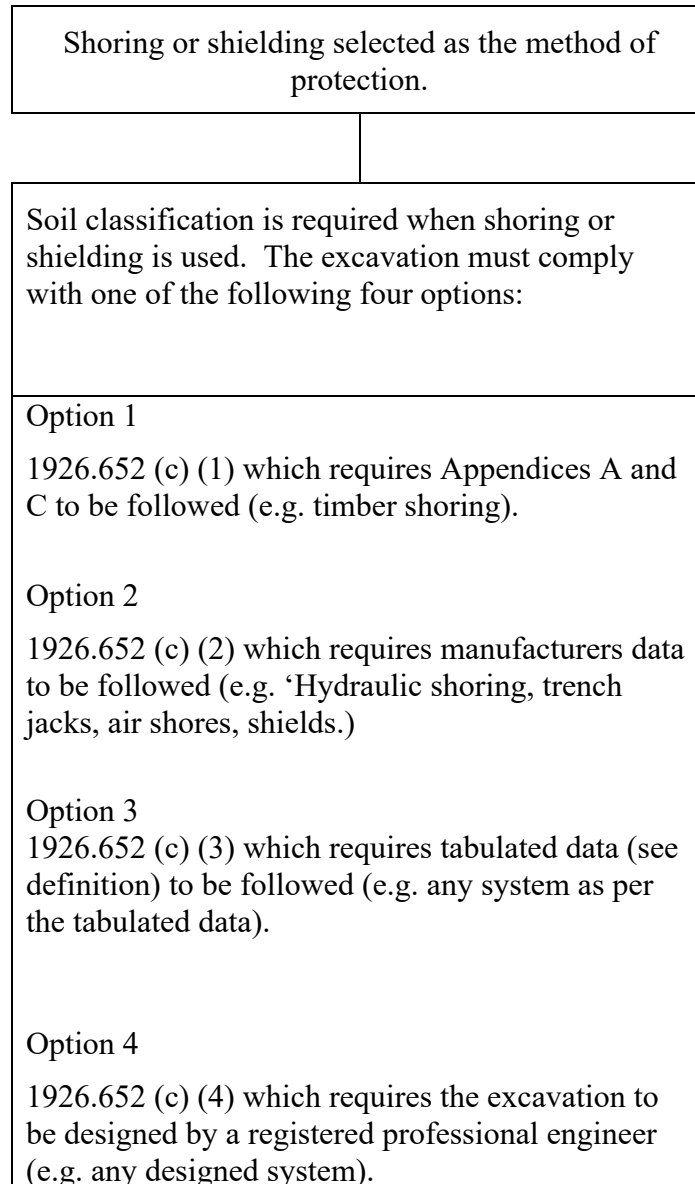


Figure 3 - Shoring and Shielding Options



SPECIAL CONDITIONS

201 SCOPE OF WORK

Under this Contract, the Contractor shall furnish all labor, materials and equipment necessary to construct the proposed improvements at the Croton Falls Park. The work includes asphalt and concrete sidewalks, curbing, asphalt parking, water service line, and appurtenant electrical work. Other related work shall include demolition, preparing, restoring and cleaning the project area all in accordance with the plans and specifications as directed by the Engineer.

202 TIME OF COMPLETION

The Contractor shall provide the required insurance and other documents as may be required to complete this agreement within ten (10) business days (in the State of New York) of notice of award.

Work shall proceed in the field subsequent to the contract signing and within five (5) business days of issuance of the Notice to Proceed. Once work has started, it shall proceed continuously and diligently. All items of work shall be completed and approved within ninety (90) days of contract signing.

203 LIQUIDATED DAMAGES

As actual damages for any delay in completion of the work which the Contractor is required to perform under this Contract are impossible to determine, the Contractor and his Sureties shall be liable for and shall pay to the Owner the sum of three-hundred dollars (\$300.00) as fixed, agreed as liquidated damages for each calendar day of delay from the above stipulated completion, or as modified in accordance with the General Conditions, until such work is satisfactorily completed and accepted.

204 COORDINATION WITH OTHER AGENCIES

The Contractor shall allow Town personnel, and any other agencies to carry out all work that is required to be completed simultaneously with his own work.

The Contractor is responsible to ensure that his work is coordinated with any outside agency for work that must be accomplished prior to installation of any final restoration. The Contractor will not be allowed to proceed until such coordination and work have been completed.

205 BACKFILL AND SETTLEMENT

The Contractor is hereby advised that he bears the sole responsibility for all backfilling work, and will be responsible for all settlement occurring within the project area resulting from the work of this project. He shall take whatever methods are necessary to assure that settlement does not occur beneath the finished work of the project and shall repair any and all work that is damaged by settlement.

206 RESTORATION

The Contractors attention is directed to “RESTORATION” in the technical specifications and the General Conditions Section 167 “Restoration”. The Contractor shall be required to restore all disturbed areas due to project construction and shall provide all labor, materials and equipment required to satisfactorily replace items disturbed as detailed in the referenced specification. The costs related to all restoration work should be included in other bid items of work for this project.

207 EXISTING UTILITY LINES AND VALVES

The Contractor shall be responsible for locating all existing water mains and valves, gas mains and valves, storm drain pipes and all private and public utility service laterals prior to beginning any construction work. The Contractor shall perform all work to comply with Code 53 in addition to its designation as Part 753. He shall also be responsible for all costs to repair damage to underground and overhead utility lines marked and unmarked.

208 PONDING AND REDIRECTION OF SURFACE RUNOFF

The Contractor shall prevent low spots where water can collect when restoring the fields. The Contractor is responsible, at no cost to the Owner, to correct any deleterious water ponding areas. The Contractor shall also prevent possible redirection of water onto private property and shall take whatever corrective measures necessary to control surface runoff during construction as directed by the Engineer, at no cost to the Owner.

209 RESIDENTIAL & BUSINESS ACCESS

The Contractor shall maintain at all times egress and ingress to all residential locations. The Contractor shall provide such adequate and proper bridging over excavations as may be necessary to maintain normal residential and business operations. The Contractor shall insure that during the course of his work that pedestrians and vehicles shall have full access to walkways, driveways and roadways within the project areas. Failure to provide proper access will result in a Contract payment deduction as determined by the Engineer.

210 PROGRESS SCHEDULE

The Contractor is advised that construction operations on this project are to be confined to as short a time period as possible. That is, once any work has begun in this area, the Contractor will be required to proceed diligently and continuously until all of the work in this area is completed. The Progress Schedule submitted by the Contractor under General Conditions Section 109 “Progress Schedule” shall indicate the Contractor’s compliance with this requirement, and the Progress Schedule will not be approved unless such compliance is incorporated in the chronological order of the work.

211 TEMPORARY SANITARY FACILITIES

As outlined in the General Conditions Section 126 “Sanitary Facilities”, the Contractor shall furnish, install and maintain, for the duration of the project, temporary toilet facilities. Any costs involved for satisfying this requirement shall be included in other bid items of work. Prior to construction, the Contractor shall request approval from the Town Highway Superintendent for a safe and proper location to set up the facility for the duration of the project.

212 PERMITS

The Contractor is responsible for obtaining any required permit, permitting cost, or expenses associated with the project.

No permits are anticipated.

213 MATERIAL AVAILABILITY

The Contractor shall schedule construction work to coordinate with the availability of construction materials. The Contractor will not be permitted to begin certain phases of work until the materials required to complete the work are approved by the Engineer and are readily available for installation.

214 STORED MATERIALS

The Contractor shall not be paid for stored materials. The Contractor shall only be paid for material completely and properly installed and approved by the Engineer.

215 DISCREPANCY

Where there is a discrepancy between the plans and specifications, the Contractor shall bid the item of higher cost.

216 AS-BUILT

The Contractor shall employ a New York State licensed surveyor to locate the proposed improvements as shown on plan prior to construction. The Contractor shall also provide a record document plan, documenting the location of installed work and annotating deviations/changes from the contract documents. "As Built" plans shall be submitted to the Engineer for review and approval when all work is complete and prior to final payment.

217 CONTRACTOR STAGING AREA

The Contractor shall coordinate a staging area with the Town of North Salem.

218 STORMWATER RUNOFF CONTROL

The project is located in the New York City Department of Environmental Protection's East of Hudson Watershed. The Contractor shall be responsible to ensure that stormwater runoff due to construction activities do not cause erosion, sedimentation, or turbidity in the receiving watercourses. The Town or Engineer may require the implementation of erosion and sediment controls if deemed necessary.

219 SNOW REMOVAL

The General Contractor shall be responsible for snow removal as required or directed by the Engineer. There will be no additional payment for this item.

220 PREVAILING WAGE RATE SCHEDULE

The Contractor shall be responsible to comply with the prevailing wage rates as published by the New York State Department of Labor. The prevailing wage rates can be found at www.labor.state.ny.us. A copy is provided in Section H of the specifications.

221 SOIL CAP

The Croton Falls Park is the site of a former transmission shop and was previously remediated. The work included a soil cap across the site as delineated on the Drawings. Within the boundary, the Contractor must limit all excavations to 24" maximum as measured from existing grade. The Contractor shall ensure that all of his employees and any of his subcontractors and all other employees are aware of the soil cap boundaries and the excavation limitation. Excavations deeper than permitted shall be immediately reported to the Engineer. The Contractor will be required to remove and/or remediate any contaminated soils exposed through his own fault.

TECHNICAL SPECIFICATIONS

ASPHALT MISCELLANEOUS SIDEWALKS, SWALES & DRIVEWAYS

WORK

The Contractor shall furnish all labor, materials and equipment required to saw cut concrete and asphalt pavements, remove and dispose of pavements, completely install asphalt sidewalks, swales, and driveway apron areas as needed and as directed by the Engineer. The Contractor shall bring the subgrade to the required elevation, and place a subbase of four (4") inch thick crushed stone bed and install a two (2") inch thick asphaltic concrete sidewalk and pavements as shown and detailed on the plans or as directed by the Engineer. The Contractor shall bring the area behind or adjacent to the sidewalk, curb and paved areas to the required elevation and contour with topsoil if required and adjust utility structures in sidewalk areas to grade. This line item shall include handwork.

The Contractor shall do all necessary cutting of roots, excavation and removal of all material of every nature and kind, preparing of subgrade and other incidentals required to complete the work in all respects. All pavements and surplus excavated material shall be hauled from the site of the work and legally disposed of as ordered by the Engineer.

MATERIALS

The 2" (min. compacted depth) asphaltic top course Item No. 402.098012 shall conform to all materials and construction requirements for Bituminous Top Course Type F1 as specified in Table 401-1 "Composition of Hot Mix Asphalt Mixtures" of the most recent NYSDOT Standard Specifications.

Tack coat shall be applied to all exposed edges that are to receive the top course. Tack coat shall be N.Y.S.D.O.T. Item 407-0101, material designation RS-1 (Table 702-9).

METHOD

The Contractor shall remove and dispose of all existing asphalt and/or concrete, surface material, vegetation and excess earth within the proposed area. Unsatisfactory excavated foundation material shall be removed and replaced with clean suitable material.

After the necessary excavation has been completed to the required subgrade and has been properly compacted to 100% density, a layer of select granular fill shall be placed and compacted with an approved compactor to a compressed thickness of not less than four (4") inches or as shown on construction details.

Asphalt shall be two (2") inches thick and laid to the elevations as directed in the field by the Engineer. The base shall be inspected by the Engineer prior to placing asphalt sidewalk. The asphalt sidewalk or driveway aprons shall be compacted with a minimum six-ton roller.

MAINTENANCE AND PROTECTION OF EXISTING UTILITY STRUCTURES

The Contractor shall adjust all existing utility structures to finished grade of new sidewalk pavement. Utility structures shall include, but not be limited to, manhole covers, valve boxes (water, gas and oil), and any other resetting within the new construction work as directed by the Engineer. The Contractor shall supply all labor, materials, and equipment necessary to adjust structures to finished grade. The Contractor shall incorporate the cost of these items in the bid price for their respective line items for valves, covers and frames.

MEASUREMENT AND PAYMENT

The quantity of material to be paid for under this item shall be the actual number of "SQUARE FEET" of asphalt top course constructed in accordance with the plans and specifications and directions of the Engineer. The Contractor shall only be paid for the construction of areas as dimensioned on the drawings and approved in the field by the Engineer. Measurements for payment shall be limited to and not exceed the pavement widths indicated on the plans.

The unit price bid for this item shall be full payment for furnishing all labor, equipment and materials including saw cutting concrete and asphalt, removal and legal disposal of pavements and excavated material, the preparation, excavation and compaction of subgrade, furnishing and placing four (4") inch thick subbase material, installation of a two (2") inch thick bituminous pavement, removal and disposal of any surplus materials, and any other incidental work required for a complete asphalt sidewalk and driveway.

BENCH

WORK

Under this item the Contractor shall supply all labor, materials and equipment required to furnish and install benches at the location shown on the Drawings and as directed by the Engineer.

MATERIALS

Submittals for all proposed materials must be provided to the Engineer for review and approval prior to ordering or installing.

Bench:

The bench shall be 6' long, backed, with no center armrest. All metals shall be steel members with zinc rich epoxy and finished with polyester powder coating; color black or as otherwise approved. There shall be no custom lettering. The bench style, color and material shall generally match the existing benches in the Croton Falls downtown area as manufactured by DuMor, Inc. of Mifflintown, PA, Victory Stanley, Inc. of Dunkirk, MD or Engineer approved equal.

Concrete Anchors and Attachment:

Stainless steel bolts shall be used to anchor benches. Refer to manufacturer recommendations for additional information.

METHOD

All benches shall be installed as per the manufacturer's instructions, in the locations shown on the Drawings and per the construction details. Bench locations shall be reviewed in the field with the Engineer prior to installation.

Benches shall be anchored to the concrete sidewalks in accordance with the manufacturer's directions.

MEASUREMENT AND PAYMENT

The Contractor shall be paid for "EACH" bench furnished and installed. This item shall include all labor, materials and equipment required to furnish and install new benches in accordance with the plans and specifications and the directions of the Engineer. This shall include anchor bolts and anchoring of the benches.

Sidewalks or similar footings to which the benches are to be anchored shall be paid for under a separate item.

BITUMINOUS BASE COURSE

WORK

Under this item the Contractor shall furnish all labor, materials and equipment necessary to place an asphaltic concrete base course on top of a prepared subgrade in accordance with the plans and specifications. The thickness of this course shall be as shown on the plans or as directed in the field by the Engineer.

MATERIALS

The base course material used shall be Base Course Type 402.378903 of the State of New York Department of Transportation most recent specifications and all subsequent addenda. Tack coat, if required, shall be NYSDOT Item 407.01. Product data, mix design and shop drawings shall be provided for the asphalt and, if required, tack coat.

CONDITIONS

The laying of this course shall not be allowed if the temperature is below forty (40°F) degrees Fahrenheit in the shade, or if there is any indication of possible rain, or if the bottom course is wet, except by permission of the Engineer.

The subgrade shall be dry, protected from water that might run onto it, and properly installed.

Manhole frames, catch basin frames, valve boxes and other structures shall be adjusted to finished grade, if necessary, prior to placing of this paving course. Adjustment of structures are specified under a separate section.

When the conditions, equipment, plant and force is, in the opinion of the Engineer, proper for the work, the operation may proceed.

METHOD

Curbs and other structures shall be protected at all times from asphaltic materials and caution shall be taken to prevent damage to curbs and other structures by rollers and other equipment.

The materials shall be hauled to the site in steel bodied trucks and covered with tarpaulins to prevent cooling. Any base course that is poorly mixed, separated, dirtied or cooled to a point of beginning to stiffen shall be rejected and removed from the site.

Unless otherwise permitted by the Engineer, the base course shall be placed by means of a mechanical spreader so operated that the mixture as spread, is free from lumps, is of uniform

density, and is to the desired cross section.

After spreading, the mixture shall be thoroughly and uniformly compressed by a power-driven two-wheel tandem roller weighing not less than ten (10) tons, as soon after being spread as it will bear the roller without undue displacement. Delays in rolling freshly spread mixture will not be tolerated. Rolling shall be longitudinal, starting at the sides and proceeding toward the center of the pavement, overlapping on successive trips. At intersections and other widened areas, the pavement shall be subject to diagonal rolling in two directions. Where roller width is limited, the Engineer shall determine the equipment to be used.

The speed of the roller shall not exceed three (3) miles per hour and shall at all times be slow enough to avoid displacement of the mixture. Any displacements occurring as a result of reversing the direction of the roller, or from any other cause, shall at once be corrected by the use of rakes and of fresh mixtures where required. Rolling shall proceed continuously until all roller marks are eliminated and until the finished course shall have a density not less than ninety-five (95%) percent of the laboratory compacted density. If the course is being placed at a rate in excess of three hundred (300) square yards per hour, the Contractor shall use an extra roller. To prevent adhesion of the mixture to the roller, the wheels shall be kept properly moistened, but excess of either water or oil will not be permitted.

MEASUREMENT AND PAYMENT

The quantity to be paid for under this item shall be the number of “TONS” of asphaltic material placed in accordance with the plans and specifications and directions of the Engineer. This quantity shall be subject to verification by field measurements and calculations. #Batch tickets from the asphalt plant shall be provided to the Engineer for review.

The unit price bid for this item shall be full payment for furnishing all labor, equipment and materials, including the preparation, the mixing, transportation, placing and rolling, necessary to complete this course as shown on the drawings and specified herein.

BITUMINOUS TOP COURSE

WORK

Under this item the Contractor shall furnish all labor, materials and equipment necessary to place an asphaltic concrete top course on top of a shim course, base course and/or existing pavement in accordance with the plans and specifications. The thickness of this top course will be as specified in the Plans or as directed in the field by the Engineer.

Also included under this item shall be saw cutting concrete and asphalt for keyways at all roadway, driveway and abutting pavements intersecting the new work.

The Contractor shall perform all roadway preparation work required to condition existing pavements.

MATERIALS

The top course material used shall be Top Course Type 402.098103 of the State of New York Department of Transportation (NYSDOT) most recent specifications and all subsequent addenda. Tack coat as specified by NYSDOT. Product data, mix design and shop drawings shall be provided for the asphalt and, if required, tack coat.

CONDITIONS

The laying of this course shall not be allowed if the temperature is below forty (40) degrees Fahrenheit in the shade, or if there is any indication of possible rain, or if the bottom course is wet, except by permission of the Engineer.

The shim course, base course and/or existing pavement shall be dry, protected from water that might run onto it, and properly installed. It shall be cleaned by hand and mechanical brushing and, if necessary, by flushing with a strong jet of clean water, and permitted to dry thoroughly before the top course is laid.

Manhole covers, catch basin frames, valve boxes and other structures shall be adjusted to finished grade, if necessary, prior to placing of this paving course.

When conditions, equipment, plant and force is, in the opinion of the Engineer, proper for the work, the operation may proceed.

METHOD

Curbs and other structures shall be protected at all times from asphaltic materials and caution shall

be taken to prevent damage to curbs and other structures by rollers and other equipment.

The materials shall be hauled to the site in steel bodies trucks and covered with tarpaulins to prevent cooling. Any top course that is poorly mixed, separated, dirtied or cooled to a point of beginning to stiffen shall be rejected and removed from the site.

Unless otherwise permitted by the Engineer, the top course shall be placed by means of a mechanical spreader so operated that the mixture as spread, is free from lumps, of uniform density, and to the desired cross section.

The shim course, base course and/or existing pavement shall be primed with approximately one-tenth (0.1) gallon per square yard of asphalt emulsion tack coat.

The tack coat shall only be sprayed on the surface to be paved with a distributor pipe or a hose nozzle to control the rate of flow. Hand application shall not be permitted except by permission of the Engineer.

To prevent equipment from picking up the tack coat it may be applied sparingly to just the areas requiring priming. Special consideration is to be given to the vertical surfaces of castings, curbs and gutters.

After spreading, the mixture shall be thoroughly and uniformly compressed by a power-driven two wheel tandem roller weighing not less than ten (10) tons, as soon after being spread as it will bear the roller without undue displacement. Delays in rolling freshly spread mixture will not be tolerated. Rolling shall be longitudinal, starting at the sides and proceeding toward the center of the pavement, overlapping on successive trips. At intersections and other widened areas, the pavement shall be subject to diagonal rolling in two directions.

The speed of the roller shall not exceed three (3) miles per hour and shall at all times be slow enough to avoid displacement of the mixture. Any displacements occurring as a result of reversing the direction of the roller, or from any other cause, shall at once be corrected by the use of rakes and of fresh mixture where required. Rolling shall proceed continuously until all roller marks are eliminated and until the finished course shall have a density of not less than ninety-five (95%) percent of the laboratory compacted density. If the surface course is being placed at a rate in excess of three hundred (300) square yards per hour, the Contractor shall use an extra roller. To prevent adhesion of the mixture to the roller, the wheels shall be kept properly moistened, but excess of either water or oil will not be permitted.

Air voids in the asphalt shall be between 3% and 7%. The air void level shall be consistent across the pavement both longitudinally and transversely.

Heated smoothing irons shall be used to finish the pavement along curbs, around manhole heads, and elsewhere where necessary.

Traffic shall be kept off the surface until it is completely cooled and until it has set so that it will not be marked by traffic.

A sixteen (16') foot straight edge and four foot carpenters level shall be made available by the Contractor for testing. The Engineer shall be assured that the profile is true to one-quarter (1/4") inch, or the pavement shall be removed and re-laid. No surface patches are to be allowed.

MEASUREMENT AND PAYMENT

The quantity to be paid for under this item shall be the number of "TONS" of top course pavement placed as documented by batch tickets from asphalt plant. This quantity shall be subject to verification by field calculation.

The unit price bid for this item shall be full payment for furnishing all labor, equipment and materials, including the preparation, the mixing, transportation, placing and rolling, necessary to complete this course as shown on the drawings and specified herein. Also included for payment shall be any work required for saw cutting keyways, removing and disposing of keyway pavement material and for preparing all roadways as specified in specification "Conditioning Existing Pavement".

CATCH BASINS

WORK

Under this item the Contractor shall provide all labor, materials and equipment necessary to repair and rebuild all catch basins as indicated on the plans and as specified. The Contractor shall reuse existing frames and grates and also provide all pipe connections as required for a complete installation.

The work shall include but not be limited to saw cutting concrete and asphalt, removal and disposal of concrete asphalt material, excavation and backfilling, maintenance of excavation area, dewatering and sheeting, supply and install subbase material, tamping and any incidentals necessary for a complete catch basin installation including cast iron castings and concrete frames.

DESCRIPTION

Catch basins shall conform in shape, size, dimensions, materials, and other respects to the details indicated on the drawings and as specified.

Catch basin walls shall be precast concrete masonry units. The top of the structure (not to exceed 6") shall be built of brickwork to permit adjustment of the frame to meet the finished surface.

Catch basin sumps shall be one-piece precast concrete or concrete masonry units on cast-in-place or precast concrete bases with a minimum sump depth of eighteen (18") inches unless otherwise specified.

Unless otherwise specified or indicated, all concrete shall be 3,000 psi.

The cast iron frames and grates shall be standard as indicated on the drawings and as specified.

PRECAST CONCRETE MASONRY UNITS

Precast concrete masonry units shall be machine made solid segments, conforming to ASTM C139 "Standard Specification for Concrete Masonry Units for Construction of Catch Basins and Manholes", with the following exceptions and additional requirements:

- Type II cement shall be used except as otherwise permitted.
- The width of the units shall be as indicated on the drawings.
- The inside and outside surfaces of the units shall be curved to the necessary radius and so designed that the interior surfaces of the structures shall be cylindrical, except the top batter courses shall be designed to reduce uniformly the inside section of the structure to the required size and shape at the top.
- Units shall be designed such that only full-length units are required to lay any one course.

- Acceptance of the units will be on the basis of material tests and inspection of the completed product.

PRECAST CONCRETE SUMPS

Precast concrete sumps shall conform to the ASTM C478 “Standard Specifications for Precast Reinforced Concrete Manhole Sections”, with the following exceptions and additional requirements:

- The wall section shall be not less than six (6”) inches thick.
- Type II cement shall be used except as otherwise permitted.
- Sumps shall be cured by subjecting them to thoroughly saturated steam at a temperature between 100- and 130-degrees Fahrenheit for a period of not less than twelve (12) hours or, when necessary, for such additional time as may be needed to enable the sections to meet the strength requirements.
- No more than two lift holes may be cast or drilled in each sump.
- Acceptance of the sumps will be on the basis of material tests and inspection of the completed product.

All holes in sumps used for their handling shall be thoroughly plugged with rubber plugs made specifically for this purpose or with mortar. The mortar shall be 1 part cement to 1-1/2 parts sand, mixed slightly damp to the touch (just short of “balling”), hammered into the holes until it is dense and an excess of paste appears on the surface, and then finished smooth and flush with the adjoining surfaces.

BRICK

The brick shall be sound, hard, and uniformly burned brick, regular and uniform in shape and size, or compact texture, and satisfactory to the Engineer. Brick shall comply with the ASTM C32 “Standard Specification for Sewer and Manhole Brick (made from Clay or Shale)”, for Grade SS, hard brick, except that the mean of five (5) tests for absorption shall not exceed eight (8%) percent by weight.

Rejected brick shall be immediately removed from the work.

MORTAR FOR BRICKWORK

The mortar shall be composed of Portland cement, hydrated lime, and sand, in which the volume of sand shall not exceed three times the sum of the volume of cement and lime. The proportions of cement and lime shall be as directed and may vary from 1:1/4 for dense, hard-burned brick to 1:3/4 for softer brick. In general, mortar for grade SS Brick shall be mixed in the proportions of 1:1/2:4-1/2.

Cement shall be Type II Portland cement as specified for concrete masonry.

Hydrated lime shall be Type S conforming to the ASTM C207 "Standard Specification for Hydrated Lime for Masonry Purposes".

MORTAR FOR MASONRY UNITS

The mortar shall be composed of one (1) part Portland cement and two (2) parts of sand by volume with sufficient water to form a workable mixture. Cement and sand shall be as specified for mortar for brickwork.

LAYING BRICKWORK AND MASONRY UNITS

Only clean units shall be used. Bricks shall be moistened by suitable means, until they are neither so dry as to absorb water from the mortar nor so wet as to be slippery when laid. Concrete masonry units shall be dry when laid.

Each brick shall be laid in a full bed and joint of mortar without requiring subsequent grouting, flushing, or filling, and shall be thoroughly bonded.

Each concrete masonry unit shall be laid in a full bed and joint of mortar and shall be thoroughly bonded. Vertical keyways shall be completely filled with mortar.

PLASTERING AND CURING BRICK MASONRY

Outside faces of brick masonry shall be plastered with mortar from 1/4 inch to 3/8 inch thick. If required, the brick masonry shall be properly moistened prior to application of the mortar. The plaster shall be carefully spread and troweled. After hardening, the plaster shall be carefully checked by tapping for bond and soundness. Unbonded or unsound plaster shall be removed and replaced.

Brick masonry and plaster shall be protected from too rapid drying by the use of burlaps kept moist, or by other acceptable means, and shall be protected from the weather and frost, all as required.

CATCH BASIN FRAMES AND GRATES

The Contractor shall furnish and install all cast iron catch basin frames and grates conforming to the details indicated on the drawings and as specified.

The castings shall be of good quality, strong, tough, even grained cast iron, smooth, free from scale, lumps, blisters, sandholes, and defects, of every nature which would render them unfit for

the service for which they are intended. Contact surfaces of grates and frame seats shall be machined to prevent rocking of grates.

All castings shall be thoroughly cleaned and subject to a careful hammer inspection.

Castings shall be at least Class 25 conforming to the ASTM A48 "Standard Specifications for Gray Iron Castings".

Before being shipped from the foundry, castings shall be given one coat of coal-tar pitch varnish, applied in a satisfactory manner so as to make a smooth coating, tough, tenacious, and not brittle nor with any tendency to scale off.

Unless otherwise specified or indicated on the drawings, castings in paved areas shall be capable of withstanding H-20 loading and shall meet the requirements of the municipality in which they are installed.

SETTING CURB INLETS, GRATES AND FRAMES

Curb inlets and frames shall be set with the tops conforming accurately to the grade of the pavement or finished ground surface, or as indicated on the drawings or as directed.

Circular frames shall be set concentric with the top of the masonry. All frames shall be set in a full bed of mortar such that the space between the top of the masonry and the bottom flange of the frame shall be completely filled and made watertight. A thick ring of mortar extending to the outer edge of the masonry shall be placed around the bottom flange. The mortar shall be smoothly finished and have a slight slope to shed water away from the frame.

Grates shall be left in place in the frames on completion of all other work at the catch basins.

CATCH BASIN ADJUSTED TO GRADE

Unless specified under a separate section, existing catch basin tops shall be adjusted to line and grade as indicated on the drawings or as directed by the Engineer.

All catch basins adjusted to grade shall be provided with brick as required for new catch basins.

REBUILDING OF EXISTING CATCH BASIN

Unless specified under a separate section, the Contractor shall cut suitable openings into existing structures to make connections to drains as indicated on the drawings and as specified or directed. In so doing, the Contractor shall confine the cutting to the smallest amount possible consistent with the work to be done.

After drains are installed, the Contractor shall carefully fit around, close up, and repair the structures, all as acceptable to the Engineer.

Prior to starting the work, the Contractor shall have assembled all tools, materials, and construction equipment required to complete the work in the shortest possible time.

ABANDONMENT OF EXISTING CATCH BASIN

Unless specified under a separate section, the Contractor shall remove the entire top of the structure, including all tapered or domed portions of the walls. All pipes or conduits in the remaining portions of the structure shall be securely plugged with Class B concrete, after which the space within the walls shall be filled with acceptable material thoroughly compacted by tamping.

The Contractor shall carefully salvage and clean all cast iron frames, gratings, and traps removed from abandoned catch basins. The salvaged castings shall remain the property of the Owner and shall be delivered to a location designated by the Owner.

MEASUREMENT AND PAYMENT

The quantity of catch basins to be paid for under this item shall be the number of "EACH" catch basin constructed in accordance with the plans, specifications, and directions of the Engineer.

The price bid shall be a unit price per catch basin in place with grates and frames and for rebuilding all catch basins as indicated on the plans and as specified. The Contractor shall reuse existing frames and grates and also provide all pipe connections as required for a complete installation.

The work shall include but not be limited to saw cutting concrete and asphalt, removal and disposal of concrete asphalt material, excavation and backfilling, maintenance of excavation area, dewatering and sheeting, supply and install subbase material, tamping and any incidentals necessary for a complete catch basin installation including cast iron castings and concrete frames.

CONCRETE CURBS

WORK

Under this item the Contractor shall furnish all labor, materials and equipment necessary to install concrete curbing as shown on the plans and as specified herein. This work shall include the removal of existing curb that is being replaced and/or other curb as indicated on the plans.

The Contractor shall perform all necessary saw cutting, removing and disposing of existing curbs, asphalt and concrete, excavating, preparing subgrade, furnishing and placing of crushed stone, concrete forming, pouring of concrete for curbs, providing joints and jointing material, reconstruction of existing roof and footing drains, removing of forms, finishing, sealing, backfilling, curing and protecting the curb, and any other work required to provide a complete and finished concrete curb. The Contractor shall also remove and dispose of all excess excavated material in accordance with State and local requirements. Materials shall be disposed of in a legal manner. The Contractor shall pay all labor, materials and equipment necessary to complete this work.

MATERIALS

Concrete for curb shall be Class A using Type 2 Portland Cement, with an air entraining compound added to provide five (5%) to eight (8%) percent (maximum) air entrainment. Curb surfaces are to be finished by rubbing with Carborundum stone. Brush finishing of curb surfaces will not be accepted.

Exposed curb surfaces shall receive two (2) coats of A-H 3 Way Clear Sealer as manufactured by the Anti-Hydro Company or approved equal, applied in accordance with directions of the manufacturer. The curing compound must comply with ASTM C309, Type 1, Class A&B.

A three-quarter inch by eight inch by eighteen inch (3/4" X 8" X 18") approved premolded expansion joint shall be installed every twenty (20') feet or as required. The premolded bituminous joint filler shall conform to requirements of ASTM D1751.

Where the curb is located adjacent to the sidewalk the contractor shall provide self leveling caulk to seal the joint over the expansion joint.

METHOD

For construction areas that require replacement of existing concrete curbs, the Contractor shall proceed with particular care as not to disturb roadways adjacent to concrete curb to be removed. The Contractor shall be responsible for the protection of adjacent pavement, removal of existing curbs to be replaced, disposal of all excavated materials and, if required, roadway repairs. The Contractor shall excavate the curb trench to the proposed line and grade. The subgrade shall

be compacted to the satisfaction of the Engineer by a vibrating mechanical tamper or other approved method.

If the sub-grade is of unsuitable materials, all such materials shall be removed and replaced with select materials, as called for by the Engineer, tamped, and brought up to the proper grade. The removal of the unsuitable material and the replacement of select materials shall be included under this item.

Top curb elevation shall be six (6") inches above final pavement grade.

Curb cuts are to be provided at driveways and where directed by the Engineer. The cuts shall be finished smooth, and provide a uniform reveal as specified on the plans, with a slope of one to one to the top of the normal curb.

It is required that where the curb is installed on roads with vertical curves, the curb grade must be laid out and curb constructed to the same parabolic vertical curvature as the road. Vertical tangents will not be accepted.

Concrete curbs shall be one foot six inches (1'-6") high with a top width of six (6") inches, a bottom width of eight (8") inches, with a one (1") inch batter on the street side of the curb.

Concrete drop curbs shall be one foot six inches (1'-6") high with a minimum top width of approximately seven (7") inches; a bottom width equal to the top width. Top curb elevation shall be one and one-half (1-1/2") inches above final pavement grade.

REINFORCING MATERIALS

Reinforcing materials shall be provided as shown on construction details.

OTHER REQUIREMENTS

The Contractor shall reconstruct existing roof drains that fall within the areas of new concrete curbs. The method and materials for reconstruction or replacement of existing drainage facilities shall be determined by the Engineer and shall be in accordance with the details of the contract documents and in conformance with these specifications.

The Contractor will be required to remove any sealant or other compounds that discolor the sidewalk. Any sidewalk permanently stained by sealant or other compounds will be removed and replaced at the Contractor's expense.

The Contractor shall include in his bid price any expenses for providing labor, materials, and equipment required to maintain in proper order at all times, all private and public utility pipes, lines and services and service boxes within his work area; and any damaged article shall be promptly replaced by the Contractor to the satisfaction of the Engineer.

The Contractor shall not leave the concrete wet and susceptible to marks by passersby, and must provide adequate protection to discourage this. Concrete marked in anyway will not be accepted by the Owner and will be the responsibility of the Contractor to remove blemished concrete and repour sections as directed by the Engineer.

The Contractor shall verify location of existing utilities whether underground or overhead and shall maintain in proper operating condition these utilities. If temporary utility services are required, the Contractor shall see to it that it is provided and it shall be his responsibility to maintain such temporary facilities unless they ask specifically to be maintained by others by prior written agreement.

The Contractor shall also verify the location of existing utility service valves and shall include in his bid price any costs related to relocating valves and related pipe work which may intersect the new work. This work is not anticipated but if encountered the Contractor shall be responsible to relocate these utilities within the right-of- way as directed in the field by the Engineer.

MEASUREMENT AND PAYMENT

The quantity of concrete curb and drop curb measured for payment under this item shall be the actual number of "LINEAR FEET" of curb placed in accordance with the plans or as directed by the Engineer including all saw cutting and the removal and legal disposal of existing curb.

The unit price bid shall include the cost of all labor, materials, and equipment necessary to complete the work. This shall include but not be limited to all saw cutting of concrete and asphalt, removal and disposal of curbs, concrete and asphalt, excavating, preparing subgrade, furnishing and placing crushed stone, tamping, concrete forming, providing concrete for curbs, pouring concrete curbs, providing joints and jointing material, reconstruction of existing roof and footing drains, removing forms, finishing, sealing, backfilling, curing and protecting the curb, and any other work required to provide a complete and finished concrete curb. The Contractor shall also remove and dispose of all excess excavated material in accordance with State and local requirements. Materials shall be disposed of in a legal manner.

CORRUGATED POLYETHYLENE PIPE

WORK

Under this item the Contractor shall furnish all labor, materials and equipment necessary to furnish and install either corrugated polyethylene (PE) pipe or corrugated perforated PE pipe in accordance with the plans. The Contractor shall remove the existing pipe, dispose of surplus excavated materials, excavate and maintain the trench, properly install the pipe, gravel, polyethylene coupling bands, covers, fittings and properly backfill and tamp the trench as hereinafter specified.

Perforated pipe shall include work necessary to complete underdrains as shown in the plans. This work includes but is not limited to remove and dispose of surplus excavated material, excavate and maintain the trench, properly install the pipe, remove existing pipe, polyethylene coupling bands, fittings, installation of filter fabric, gravel, swale, underdrain filter material and properly backfill and tamp the trench as shown in plans and hereinafter specified.

MATERIALS

Type S - This pipe shall have a full circular cross-section with an outer corrugated pipe wall and a smooth inner liner. Corrugations shall be helical.

Type SP - This pipe shall be Type S with perforations as specified.

The pipe shall be either Type S or Type SP, as specified on the bid sheets high density corrugated polyethylene pipe with N-12 Dual Wall smooth flow interior as manufactured by Advanced Drainage Systems, Inc. of Ludlow, MA or approved equal. The PE pipe shall be provided with exterior corrugations of dimensions recommended by the manufacturer for the sizes of pipe indicated on the plans. It shall conform in all respects to the requirements of ASTM standards and all subsequent addenda for N-12 Corrugated Polyethylene Pipe.

Extruded Pipe and Blow Molded Fittings: Pipe and fittings shall be made of virgin PE compounds which conform with the requirements of Type III, Category "4" or "5", Grade P33, Class C; or Grade P34, Class C, as defined and described in ASTM D1248.

Rotational Molded Pipe and Fittings: Pipe and fittings shall be made of virgin PE compounds which conform with the requirements of Type III, Category "3", Grade P33, Class C; or Grade P34, Class C, as defined and described in ASTM D1248.

Reworked Material: Clean reworked material generated from the manufacturer's own production may be used by the manufacturer provided that the pipe or fittings produced meet all requirements of this specification.

Gravel: See Specification Section CSG, "FURNISH AND PLACE CRUSHED STONE OR GRAVEL".

APPLICABLE STANDARDS

ASTM Standards:

- D 618 Conditioning Plastics and Electrical Insulating Materials for Testing.
- D 883 Terms Relating to Plastics.
- D 1248 Polyethylene Plastics Molding and Extrusion Materials.
- D 1693 Environmental Stress Cracking of Ethylene Plastics.
- D 2122 Determining Dimensions of Thermoplastic Pipe and Fittings.
- D 2412 External Loading Properties of Plastic Pipe by Parallel-Plate Loading.
- D 2444 Test for Impact Resistance of Thermoplastic Pipe and Fittings by Means of a Tup (Falling Weight).
- F 412 Terms Relating to Plastic Piping Systems.

PIPE REQUIREMENTS

Workmanship: The pipe and fittings shall be free of foreign inclusions and visible defects as defined herein. The ends of the pipe shall be cut squarely and cleanly so as not to adversely affect joining or connecting.

Visible Defects: Cracks, creases, unpigmented or non-uniformly pigmented pipe are not permissible in the pipe as furnished.

Nominal Size: The nominal size for the pipe and fittings is based on the nominal inside diameter of the pipe. Nominal diameters shall be as shown on the plans and/or as directed by the Engineer.

Inside Diameter Tolerances: +3% and -1.5%.

Length: Corrugated PE pipe is an extruded product and may be sold in any length agreeable to the user. Lengths shall not be less than 99 percent of the stated quantity.

Perforations: When perforated pipe is specified, the perforations shall be cleanly cut so as not to restrict the inflow of water and uniformly spaced along the length and circumference of the pipe. Circular perforations shall not exceed 5/16 inch in diameter. The width of slots shall not exceed 1/8 inch. The length of slots shall not exceed 2.5 inches for 12 inch and 15 inch pipe and 3.0 inch for 18 inch and 24 inch pipe. Perforations shall be placed in the valleys of the corrugations. The water inlet area shall be a minimum of 1.0 square inch per linear foot of pipe.

Pipe Stiffness: The pipe shall have minimum pipe stiffness at five percent deflection as follows:

<u>Diameter</u> (inches)	<u>Pipe Stiffness</u> (psi)
12	45
15	42
18	40

<u>Diameter</u> (inches)	<u>Pipe Stiffness</u> (psi)
21	38
24	34
30	28

Pipe Flattening: There shall be no evidence of wall buckling, cracking, splitting, or delamination, when the pipe is tested.

Environmental Stress Cracking: There shall be no cracking of the pipe when tested.

Brittleness: Pipe specimens shall not crack or split when tested. Five (5) non-failures out of six (6) impacts will be acceptable.

FITTING REQUIREMENTS

The fittings shall not reduce or impair the overall integrity or function of the pipe line.

Common corrugated fittings include in-line joint fittings, such as couplings and reducers, and branch or complimentary assembly fittings such as tees, wyes, and end caps. These fittings are installed by various methods, such as snap-on, screw-on, and wrap around.

Only fittings supplied or recommended by the pipe manufacturer should be used.

All fittings shall be within an overall length dimensional tolerance ± 0.5 inch of the manufacturer's specified dimensions.

Fittings shall not reduce the inside diameter of the pipe being joined by more than 0.5 inch. Reducer fittings shall not reduce the cross-sectional area of the small size.

Couplings shall be corrugated to match the pipe corrugations and shall provide sufficient longitudinal strength to preserve pipe alignment and prevent separation at the joints. Couplings shall be bell and spigot, split collar, or screw-on collar. Split collar couplings shall engage at least one full corrugation on each pipe section and screw on collars shall be in width at least one-half the nominal diameter of the pipe.

Pipe connections shall not separate to create a gap exceeding 3/16 inch when measured in a radial direction between pipe and coupling, or between tongue and groove portions of pipe. Fittings shall not crack or delaminate.

The design of the fittings shall be such that when connected with the pipe, the axis of the assembly will be level and true.

JOINTS

The joining of the pipes shall be done using coupling bands. The size, material, and method of installation shall be as recommended by the manufacturer and accepted by the Engineer.

INSPECTION AND RETEST

Inspection: Inspection of the material shall be made as agreed upon by the purchaser and the seller as part of the purchase contract.

Retest and Rejection: If any failure to conform to these specifications occurs, the pipe or fittings may be retested to establish conformity in accordance with agreement between purchaser and seller. Individual results, not averages, constitute failure.

MARKING

All pipe shall be clearly marked at intervals of no more than ten (10') feet as follows:

- Manufacturer's name or trademark.
- Nominal Size.
- Manufacturer's specification designation, "M-294".
- The plant designation code.
- The date of manufacture or an appropriate code.

Fittings shall be marked with the designation number of the manufacturer's specification, "AASHTO M 294", and with the manufacturer's identification symbol.

QUALITY ASSURANCE

A manufacturer's certificate that the product was manufactured, tested, and supplied in accordance with this specification, together with a report of the test results, and the date each test was completed, shall be furnished upon request. Each certification so furnished shall be signed by a person authorized by the manufacturer.

CUTTING PAVEMENT

Before making any excavation, the Contractor shall cut the edges of the trench. Ripping of pavement by means of excavating equipment will not be permitted.

In the case of asphalt pavement, cutting of the edge shall be done by means of pneumatic drill with spade-shaped bit, or saw cut at the Contractor's option. Concrete pavements shall be saw cut by the Contractor.

EXCAVATION OF TRENCH

The Contractor shall excavate a trench to the depth shown on the plans and to a width one (1) foot outside the pipe. The Contractor shall not use equipment which will excavate a trench wider than that specified. Hand excavation shall be employed wherever in the opinion of the Engineer it is necessary for the protection of existing utilities, trees, pavements or other structures.

All excavation shall be open cut method unless tunneling is authorized by the Engineer.

Excavation of the trench under this item shall include the necessary removals of existing drainage pipes or culverts that will be replaced, curbs, gutters, walks and driveways and the cutting, removal and disposal of asphalt and concrete pavement. See Section R, "Restoration" for replacement of existing site features upon completion of the work.

The Contractor shall keep the trenches free from water.

Trench rock shall be excavated to a depth of six (6") inches below the pipe.

At least twenty (20') feet of trench shall be excavated in front of the laying of the pipe. No more than fifty (50') feet of trench shall remain open over night without the express approval of the Engineer.

Additional depth of trench shall be excavated as required to clear obstructions not shown on plans. Measurement for this extra depth shall be from a point one foot below the design invert of the pipe to the bottom of the excavation. There shall be no payment for the first foot of extra depth under the Section MEE, "Miscellaneous Earth Excavation". Payment for this first foot shall be included under this item.

SHEETING AND BRACING

Trenches shall be properly sheeted, shored and braced as necessary to prevent shifting of materials, to prevent damage to structures, pavement and pipes, and to provide safe working conditions. The Contractor shall be responsible for providing, installation and for the adequacy of all sheeting and bracing used and for all damage resulting from its failure or from placing, maintaining and removing it. No payment will be made for sheeting and bracing if it is removed, or if it is left in place for the Contractor's convenience. If the sheeting and bracing is ordered to be left in place by the Engineer after having been constructed, the Contractor shall be entitled to the cost of materials so left in place.

If there is a space between the sheeting and the side of the trench, the space shall be backfilled with suitable material thoroughly compacted in place. Where adjacent structures, pavement, or pipes may be damaged by the removal of sheeting, the Contractor shall not remove the sheeting. All sheeting left in place shall be cut off at least two (2') feet below the surface of the ground. Where sheeting or shoring is to be removed, the removal shall be in such a manner as to prevent loss of ground.

Attention is drawn to the New York State Department of Labor Industrial Code Rule #23, and O.S.H.A. regulations. Prefabricated sheeting boxes may be used only with the approval of the Engineer as to the box itself and the method of use.

PIPE FOUNDATION

The pipe shall rest on suitable material and a stable bottom. Soft, spongy or other unstable soil encountered at the invert established shall be excavated and removed. Excavation shall be for a width of one (1') foot outside the pipe and to a depth as called for by the Engineer. The pipe shall then receive a foundation of crushed stone, if required by the Engineer. The cost of this crushed stone shall be paid for under Section CSG, "Furnish and Place Crushed Stone or Gravel" except where in rock.

Excavation of the unstable bottom below the designed invert shall be under the Section MEE, "Miscellaneous Earth Excavation".

Measurement for this extra excavation shall be from a point one (1') foot below the invert of the pipe to the bottom of the excavation. There shall be no payment for the first foot of extra depth under the "Miscellaneous Earth Excavation" item. Payment for this first foot shall be included as part of this item.

HANDLING OF PIPE

The pipe shall be handled in a manner such that it will not be damaged or overstressed. Properly designed lifting apparatus shall be used in loading, unloading and lowering pipe into place for laying. Any type of mishandling or damage to the pipe during any phase of the work will be cause for rejection by the Engineer.

LAYING PIPE

The pipe shall be laid in the trench to conform accurately to the line and grade as called for on the plans. The pipe shall be laid on undisturbed ground supported throughout and shall have a uniform bearing from end to end. The use of blocks shall be strictly forbidden, except upon the express approval of the Engineer.

Pipes shall be deflected where indicated on the plans/or directed by the Engineer. Deflection shall be performed by the use of additional joints and/or elbows, as approved by the Engineer.

Where excavation has been made below the required grade, such areas shall be backfilled with suitable materials and compacted at the expense of the Contractor. All loose or unsuitable materials shall be removed from the trench bottom.

Where a line goes from one condition of bearing to another, as from rock cut to earth, or to gravel bed, special care is to be exercised to see that the less firm bearing ground is tamped and secure.

BACKFILLING

Backfill Material: Backfill shall be select granular well-draining material. It shall be free from rocks and hard lumps or clods larger than two (2") inches in diameter, sod, cinders, organic material and frozen fill. A small amount of silt or clay, less than 20 percent, is permissible. Unsuitable materials, as determined by the Engineer, shall be removed from the job site. Excess material and unsuitable material, excavated from the trench, shall be removed from the site by the Contractor as part of this item.

Backfill Around Pipe and Structures: After the pipe has been properly laid and inspected as required, the space between the pipe and the sides of the trench shall be filled to the top of the pipe in six (6") inch layers. Fill material under haunches and around the pipe must be placed alternately in six (6") inch layers on both sides of the pipe to permit thorough tamping. The fill is placed alternately to keep it at the same elevation on both sides of the pipe at all times. Tamping can be done with hand or mechanical equipment, tamping rollers or vibrating compactors, depending upon field conditions. It shall be done carefully to insure a thoroughly tamped backfill.

At this point the Engineer shall be notified and he shall inspect the pipes. Pipes, which in the opinion of the Engineer have deformed or joints which have opened, shall be excavated and satisfactorily repaired or replaced at no additional cost to the Town. After the Engineer's approval the backfill operation shall continue, as described above to an elevation one (1') foot above the top of the pipe. The earth above this point shall be backfilled and compacted in nine (9") inch layers and addition of water may be required by the Inspector to achieve the required compaction.

Tamping Equipment:

Hand Equipment - For tamping under the haunches of a pipe or structure, a pole or 2 x 4 is generally needed to work in the small areas. Hand tampers for compacting horizontal layers should weigh not less than twenty (20) pounds and have a tamping face not larger than 6 x 6 inches. Ordinary "sidewalk" tampers are generally too light.

Mechanical Tampers - Most types of power tampers are satisfactory and can be used in all except the most confined areas. However, they must be used carefully and completely over the entire area of each layer to obtain the desired compaction. Avoid striking the structure or pipe with power tamping tools.

It shall be the responsibility of the Contractor to prevent water, earth, stone, sand or debris of any nature from entering the drain lines. Should any material accidentally enter the line, it shall be flushed or dragged until satisfactorily cleaned, and provision shall be made to catch all such matter before it can enter any drain.

INTERFERING STRUCTURES

The Contractor shall, under this Contract, and as called for in the General Conditions, sustain and protect from direct or indirect injury all pipes, poles, conduits, walls, buildings, roadways and other structures, utilities and property in the vicinity of his work. Such sustaining and supporting shall be carefully done by the Contractor and as required by the Company or party owning the structure. The Contractor shall take all risks attending their presence and he shall be responsible for all damage and assume all expense for direct or indirect injury caused by his work, to any of them or to any person or property by reason of injury to them whether such structures are or are not shown on the drawings.

Should the position of any pipe, conduit, pole or other structure, except structures and pipe specifically shown to be removed, be such as in the opinion of the Engineer to require its removal, realignment or change, such work will be done by the Owner of the obstruction without cost to the Contractor, but the Contractor shall uncover and support the structures, at his own expense, before and after such removal, realignment or change, as part of this contract; and the Contractor shall not be entitled to any claim for damage or extra compensation resulting from any delay in the removal or rearrangement of the same. Wherever so directed, the Contractor shall excavate test pits to locate subsurface obstructions or pipes.

INSPECTION

Pipes, which in the opinion of the Engineer have deformed or joints which have opened shall be excavated and satisfactorily repaired or replaced at no additional payments by the Town.

CLEANING PIPES

The Contractor shall prevent earth, stone, sand, or debris of any nature from entering the lines. Should any material enter the line, the line shall be flushed or dragged by approved methods until satisfactorily cleaned, and provision shall be made to catch all such matter before it can enter any drain lines.

MEASUREMENT

The quantity of pipe to be paid for under this item shall be the actual number of "LINEAR FEET" of pipe line, of the various sizes laid by the Contractor, as measured along the center line of the pipe from inside face to inside face of structures or to end sections without regard to the lengths of the individual pieces of pipe or cuts, or joints required.

The quantity will be "EACH" for the individual end section.

PAYMENT

The payment for this item shall be on a “LINEAR FOOT” of pipe and shall be “EACH” per end section. All work under this item shall include all labor, materials and equipment and other miscellaneous expenses including trench excavation and backfill, maintaining and sheeting the trench if required, furnishing and installing of polyethylene coupling bands, and for furnishing and laying the pipe as specified and shown on the plans.

Perforated Pipe shall include work necessary to complete Underdrains as shown in the plans. This work includes but is not limited to remove and dispose of surplus excavated materials, excavate and maintain the trench, properly install the pipe, polyethylene coupling bands, fittings, installation of filter fabric, crushed stone filter material, grading of swale and properly backfilled and tamp the trench as shown in plans and hereinafter specified.

CRUSHED STONE OR GRAVEL

WORK

Under this item the Contractor shall supply all labor, material and equipment required to furnish and place crushed stone or gravel as directed by the Engineer. This item will in general cover the use of the material placed to correct unsuitable subgrade conditions in earth or placed as a subbase for asphalt pavement or for use as a foundation for concrete structures and pipe but is not necessarily limited to these purposes.

Recycled or processed material shall not be acceptable for this item.

MATERIAL

All materials shall conform to the New York State Department of Transportation Standard Specifications dated May 1, 2008 and subsequent addenda, except that no limestone or crushed slag shall be permitted. Stone sizes referred to are as specified in Table 703-4 of the New York State Department of Transportation (NYSDOT) Specifications (703-0203, No. 1). The stone size to be supplied shall be as specified on the plan or as approved in the field by the Engineer. Item 304.12 (Item 4) shall meet NYSDOT Specification Table 304-1, Type 2.

METHOD

When unsuitable, unstable, mucky foundations for pipes, structures, or roadways are encountered, the Contractor shall notify the Engineer, who shall, if he so deems necessary, order the excavation of the muck to defined lines and grade. The Contractor shall then supply the material ordered by the Engineer and carefully place it within the area excavated. The material shall be placed in six (6") inch layers and be compacted, in trenches by hand or mechanical tampers and in roadways by roller.

TESTING MATERIAL

The Engineer may, if he deems it necessary, take samples of the material supplied and have it analyzed to ascertain whether or not it fulfills the requirements of the specifications set forth.

If the material does not meet these specifications and has already been utilized in the construction, payment shall be reduced to fifty (50%) percent of the bid price and the Contractor shall pay for the cost of testing.

MEASUREMENT

Measurement shall be by the “CUBIC YARD” of the designated material actually placed within the payment limit lines ordered by the Engineer.

For stabilization of excavated areas, the measurement shall be within the following payment limit lines:

Length: The length measurement shall be the actual length of excavation ordered to be stabilized by the Engineer.

Width: The width measurement shall be one foot, on each side, outside the structure being installed irrespective of actual width of excavation or stabilized area.

Depth: The depth measurement for material placed shall be the depth of the excavation below the normal bottom pay limit for the bottom of a structure as ordered by the Engineer. In no case shall payment be made to depths excavated below those ordered by the Engineer. No payment shall be made for using stone or gravel to fill undercuts below the required grade when not ordered by the Engineer.

PAYMENT

The payment shall be at the unit price bid for the material shown on the plans or as designated by the Engineer which shall include all labor, materials and equipment necessary for furnishing the materials and for placing and preparing them in the excavated area as specified or directed.

No payment will be made under this item for gravel or crushed stone used to replace excavated rock. Such gravel or crushed stone shall be included in the unit price for rock excavation.

No payment will be made under this item for gravel or crushed stone used in connection with any item where this material is specified on the plans or in the specifications to be included as part of that item.

CONCRETE SIDEWALKS AND RAMPS

WORK

Under this item the Contractor shall furnish all labor, materials and equipment necessary to remove existing sidewalks throughout the project area and completely install the one-course air-entrained concrete sidewalks, vehicle and pedestrian ramps and subbase foundations in the thicknesses as shown on the plans and specified herein. The Contractor shall remove existing sidewalks adjacent to the proposed sidewalk and existing sidewalks which require removal for the installation of the new sidewalks. The cost of the removal and disposal of all existing sidewalks shall be included in the unit price bid for new sidewalks.

The price bid shall be a unit price per square foot of five (5") inch thick concrete with a six (6) inch subbase material for sidewalks and pedestrian ramps and seven (7") inch thick concrete with six (6") inch subbase material for vehicular ramps installed complete and shall include furnishing all labor, materials and equipment required. The Contractor shall do all necessary saw cutting of asphalt and concrete, removal and legal disposal of asphalt and concrete, preparing of subgrade, cutting of roots, excavation, minor adjustment (e.g. shimmiing) of manhole covers, valves boxes, oil fills, existing utility structures, cellar doors and metal plates within sidewalk and ramp areas, replace existing roof and leader drains, providing, placing and tamping of subbase foundation, set forms, install expansion joints and galvanized wire mesh, provide and pour concrete, score and broom finish surface, remove forms, protect concrete, backfill sidewalk, apply sealing agent and any incidentals required to complete the work in all respects. All surplus excavated material shall be hauled from the site of the work and legally disposed or as ordered by the Engineer.

METHOD

After the necessary excavations have been completed to the required subgrade and has been compacted to the satisfaction of the Engineer, a layer of select crushed stone shall be placed thereon and shall be compacted to a compressed thickness of not less than five (5") inches for sidewalks and pedestrian ramps and seven (7") inches for vehicular ramps.

FORMS

Metal or wood forms shall be used in the construction of the sidewalks and ramp as required. The forms shall be set true to line and grade and shall be installed with sufficient bracing to prevent warping. Before any concrete is poured the Engineer shall approve the form work.

CONCRETE

The concrete shall be poured in alternate panels and shall be evenly spread and leveled by screeding in such a manner as to obtain the required thickness and be poured in no more than twenty-five (25') foot strips to the width shown on the plans.

The concrete shall consist of Class D Portland Cement, sand, crushed stone, water and admixture. All of the materials and concrete shall conform in every respect to the requirements contained in these Specifications and to the requirements set forth for "Rigid Pavement", Section 500 of the New York State Department of Transportation Specifications except that no gravel or slag will be used for coarse aggregate. A difference in the color of concrete used for a portion of the work shall be cause for the rejection of the sidewalk.

Concrete shall have a compressive strength of 4,000 psi and its slump shall be between two (2") and three (3") inches. The Concrete shall be proportioned in accordance with the aggregate weights specified for Class D concrete in New York State Department of Transportation Table 501-3.

SUBBASE MATERIAL

Subbase materials shall conform to the New York State Department of Transportation (NYSDOT) Standard Specifications dated May 1, 2021 and subsequent addenda for Item 304.12 Subbase Course Type 2, commonly referred to as "Item 4" shall meet NYSDOT Specification Table 304-1, Type 2 or as approved by the Engineer. Stone sizes and materials are as specified in 733-04 of NYSDOT Standard Specifications except that no limestone or crushed slag shall be permitted.

REINFORCING MATERIALS

Reinforcing materials shall be welded galvanized wire fabric conforming to ASTM A1060 "Zinc-Coated (Galvanized) Welded Wire Reinforcement, Plain and Deformed, for Concrete". Wire fabric shall be fully embedded within the concrete with adequate cover and no part of the fabric touching the subbase below.

Plain, uncoated fabric or reinforcement ("black bar") shall not be used in the same concrete structure where galvanized fabric or reinforcement is used. Per Sect. 15.12.3, NYSDOT Bridge Manual, 2019: "When black bars are used in the same element with galvanized bars, the galvanized bar sacrifices itself to protect the black bar. This results in reduced service life."

EXPANSION JOINTS

A 3/8" X 5" approved premolded expansion joint shall be installed so that the top is 1/4" below the finish grade of the sidewalk, at intervals not greater than fifteen (15') feet, unless otherwise approved by the Engineer, and also adjacent to all buildings, driveways, and other structures, and at such other locations as may be ordered by the Engineer. The premolded bituminous joint filler shall conform to requirements of ASTM D1751.

FINISH

As soon as the concrete has set sufficiently to permit finishing operations, the surface of the concrete

shall be rubbed with a wooden float. The “floating” shall remove all irregularities and produce a smooth and granular finish. The addition of cement to the surface will not be permitted. Unless otherwise directed as shown on the plans, the edges of each panel of segment shall be marked out with a standard edging tool having a radius of one-half (1/2”) inch. The concrete walk surface shall be lightly broomed with a standard hair broom to produce a nonskid surface.

PROTECTION

The Contractor shall apply a protecting agent, such as Baracade Silane 100 C by Euclid Chemical of Cleveland, OH (800-321-7628), Sikagard-705 L by Sika Corporation of Lyndhurst, NJ (800-933-7452), or Engineer approved equal, to protect concrete from chlorides. Application shall be in conformance with the manufacturer’s instructions. Prior to any applications of the protecting agent, the concrete surface shall be dry and cleaned of all dirt and debris. An admixture to achieve the same results may be added to the concrete mix.

MAINTENANCE AND PROTECTION OF EXISTING UTILITY STRUCTURES

The Contractor shall adjust all existing utility structures to finished grade of new concrete pavement. Utility structures shall include, but not be limited to, manhole covers, valve boxes (water, gas and oil), coal chutes and other resetting within the new construction work as directed by the Engineer. The Contractor shall supply all labor, materials, and equipment necessary to adjust structures to finished grade as directed by the Engineer. The Contractor shall incorporate the cost of minor adjustments in the bid price for “Concrete Sidewalks”.

OTHER REQUIREMENTS

The Contractor shall construct Sidewalk Pedestrian and Vehicular Ramps as shown on the plans or as directed by the Engineer.

The Contractor shall reconstruct existing roof drains and underside walk drains located within the areas of new concrete sidewalks. The method and materials for reconstruction or replacement of existing drainage facilities shall be determined by the Engineer and shall be in accordance with the details of the contract documents and in conformance with these specifications.

The Contractor will be required to install an approved sealant between new sidewalk and existing buildings. This sealant shall be a two component polysulfied polymer base material meeting or exceeding Federal Specification TT-S-0027, Type II such as “DAP Two-Part Flexiseal” as manufactured by DAP, Inc. of Dayton, Ohio or approved equal. Color shall be as selected by the Engineer.

This sealant shall be used in conjunction with a suitable primer. This primer shall be a synthetic resin solution compounded specifically for promoting adhesion to the substrate involved with as DAP Flexiseal Primer or approved equal. Backup material shall be untarred oakum fiberglass, polyurethane

foam or polyethylene foam. No oily or asphaltic type materials shall be used. A bond breaker such as polyethylene film must be used between filler and sealant. The fill shall be uniform to provide minimum sealant depth of three (3") inches.

The Contractor will be required to remove any sealant for other compounds that discolor the sidewalk. Any sidewalk permanently stained by sealant or other compounds will be removed and replaced at the Contractor's expense.

Embedded detectable warning surfaces, also referred to as truncated domes, shall be applied to the pedestrian ramps as shown on the plans. Surfaces shall be as specified NYSDOT Standards Specifications dated May 1, 2021 and subsequent addenda for Item 608.21 "Embedded Detectable Warning Units".

The Contractor shall include in his bid price any labor, materials and equipment required to maintain in proper order at all times, all private and public utility pipes, line and services and service boxes within his work area; and any damaged article shall be promptly replaced at the Contractor's expense to the satisfaction of the Engineer.

The Contractor shall not leave the concrete wet and susceptible to marks by passersby and must provide adequate protection to discourage this. Concrete marked in anyway will not be accepted by the Town and will be the responsibility of the Contractor to be re-poured as directed by the Engineer.

The Contractor shall verify location of existing utilities whether underground or overhead and shall maintain in proper operating condition these utilities. If temporary utility services are required, the Contractor shall see to it that it is provided and it shall be his responsibility to maintain such temporary facilities unless they are specifically to be maintained by others by prior written agreement.

MEASUREMENT AND PAYMENT

The quantity of concrete to be paid for under this item shall be the actual number of "SQUARE FEET" of concrete sidewalks, pedestrian ramps and vehicular ramps constructed in accordance with the plans and specifications and directions of the Engineer. The bid price shall be per square foot of concrete and subbase in place complete. The Contractor shall remove existing sidewalks adjacent to the proposed sidewalk and existing sidewalks which require removal for the installation of the new sidewalks. The cost of the removal and disposal of all existing sidewalks shall be included in the unit price bid for new sidewalks.

The price bid shall be a unit price per square foot of five (5") inch thick concrete with a six (6) inch subbase material for sidewalks and pedestrian ramps and seven (7") inch thick concrete with six (6") inch subbase material for vehicular ramps installed complete and shall include furnishing all labor, materials and equipment required. The Contractor shall do all necessary saw cutting of asphalt and concrete, removal and legal disposal of asphalt and concrete, preparing of subgrade, cutting of roots, excavation, adjust manhole covers, valves boxes, oil fills, existing utility structures, cellar doors and metal plates within sidewalk and ramp areas, replace existing roof and leader drains, providing, placing and tamping of subbase foundation, set forms, install expansion joints and galvanized wire

mesh, provide and pour concrete, score and broom finish surface, install detectable warning surfaces, remove forms, protect concrete, backfill sidewalk, apply sealing agent and any incidentals required to complete the work in all respects. All surplus excavated material shall be hauled from the site of the work and legally disposed or as ordered by the Engineer.

FURNISH AND INSTALL DUCTILE IRON PIPE (DRAINAGE)

WORK

Under this item the Contractor shall supply all labor, materials and equipment necessary to furnish and install, ductile iron pipe for drainage pipe. The work shall include but not be limited to saw cutting concrete and asphalt, removal and disposal of asphalt and concrete material and removal and disposal of existing water main as directed by the Engineer. The Contractor shall excavate and maintain the trench, properly install the pipe, backfill and tamp the trench.

MATERIALS

The pipe used shall be ductile iron, centrifugally cast pipe conforming with AWWA C151. All ductile iron pipe shall be lined with cement mortar and shall have a petroleum asphaltic coating as specified in AWWA C151. The cement mortar lining shall conform with AWWA C104. The pipe shall be thickness Class 54.

The joints shall be of type which employs a gasket or gaskets to affect the joint seal. Electrical conductivity shall be maintained across the rubber gaskets by using bronze wedges for push-on joints; or by the attachment of electrically conductive straps, if approved by the Engineer. All joints shall conform with AWWA C111 Standards and be assembled in accordance with the manufacturer's recommendations and to the satisfaction of the Engineer.

CUTTING PAVEMENT

Before making any excavation, the Contractor shall cut the edge of the trench. Ripping of pavement by means of excavating equipment will not be permitted.

In the case of asphalt pavement, cutting of the edge shall be done by means of pneumatic drill with spade-shaped bit.

Concrete pavement may initially be cut by pneumatic drill or by a concrete saw. Cuts in concrete pavement for final permanent pavement must be made by a concrete saw.

EXCAVATION OF TRENCH

The Contractor shall excavate a trench to the depth shown on the profiles and to a width one (1') foot outside the pipe. Enlargements shall be made at the joints to permit proper installation. The Contractor shall not use equipment which will excavate a trench wider than that specified. Hand excavation shall be employed wherever in the opinion of the Engineer, it is necessary for the protection of existing utilities, trees, pavements or other structures.

All excavation shall be by open cut method unless tunneling is authorized by the Engineer. Such tunneling shall be at the same unit price unless a separate bid item is provided therefor.

Excavation of the trench under this item shall include all necessary removal of curbs, gutters, walks and driveways and the cutting and removing of asphalt pavement. Concrete pavement removal shall be paid for under its own item.

The Contractor shall keep the trenches free from water. This shall be done as part of this item. If underdraining is required by the plans or specifications or authorized by the Engineer, it shall be provided and paid for under its own item.

At least twenty (20') feet of trench shall be excavated in front of the previously laid pipe. Trenches shall not remain open overnight without the express approval of the Engineer.

Additional depth of trench shall be excavated as required to clear obstructions not shown on the plans. No extra payments shall be made for any additional depth unless the total excavation exceeds seven (7') feet in depth. Excavation more than seven (7') feet below original grade will be paid for by the cubic yard within the payment limit lines under "MISCELLANEOUS EARTH EXCAVATION", but, only when ordered by the Engineer.

SHEETING AND BRACING

Trenches shall be properly sheeted, shored, and braced as necessary to prevent shifting of materials, to prevent damage to structures, pavement and pipes, and to provide safe working conditions. The Contractor shall be responsible for providing, and installing and for the adequacy of all sheeting and bracing used and for all damage resulting from its failure or from placing, maintaining and removing it. If the sheeting and bracing is ordered to be left in place by the Engineer after having been constructed, the Contractor shall be entitled to the cost of materials so left in place. If the sheeting and bracing is ordered to be left in place before being constructed, the Contractor shall be entitled to payment in accordance with GENERAL CONDITIONS, Section 112, Changes in the Work.

If there is a space between the sheeting and the side of the trench, the space shall be backfilled with suitable material thoroughly compacted in place. Where adjacent structures, pavement, or pipes may be damaged by the removal of sheeting, the Contractor shall not remove the sheeting. All sheeting left in place shall be cut off at least two (2') feet below the surface of the ground. Where sheeting or shoring is to be removed, the removal shall be in such a manner as to prevent loss of ground.

Attention is drawn to the New York State Department of Labor Industrial Code Rule #53, and O.S.H.A. regulations. Prefabricated sheeting boxes may be used only with the approval of the Engineer as to the box itself and the method of use.

PIPE FOUNDATIONS

The pipe shall rest on suitable material and a stable bottom. Soft, spongy or other unstable soil encountered at the invert established shall be excavated and removed. Excavation shall be for a width of two (2') feet plus the outside diameter of the pipe and to a depth as called for by the Engineer. The pipe shall then receive a foundation of crushed stone, washed gravel, concrete mattress, or such precaution as directed by the Engineer. Stabilization of the trench or other means of pipe support shall be under its own item.

Additional depth of trench shall be excavated as required to remove any unsuitable material to provide a stable base. No extra payments shall be made for any additional depth unless the total excavation exceeds seven (7') feet in depth. Excavation more than seven (7') feet below original grade will be paid for by the cubic yard within the payment limit lines under "MISCELLANEOUS EARTH EXCAVATION", but, only when ordered by the Engineer.

HANDLING OF PIPE

The pipe shall be handled in a manner such that it will not be damaged or overstressed. Properly designed lifting apparatus shall be used in loading, unloading and lowering pipe into place for laying. Any type of mishandling or damage to the pipe during any phase of the work will be cause for rejection by the Engineer.

LAYING PIPE

The pipe shall be laid in the trench to conform to the line and grade as called for on the plans, providing a minimum of four (4') feet of cover except as otherwise noted. Each pipe shall be laid on undisturbed ground supported throughout with depressions dug to receive bells and the entire barrel or pipe shall have a uniform bearing from end to end. The use of blocks shall be strictly forbidden, except upon the express approval of the Engineer.

Where excavation has been made below the required grade, such areas shall be backfilled with suitable materials and compacted at the expense of the Contractor. All loose or unsuitable materials shall be removed from the trench bottom.

Where a line goes from one condition of bearing to another, as from rock cut to earth, or from concrete mattress to gravel bed, special care is to be exercised to see that the less firm bearing ground is tamped and secure. Short lengths of pipe may be required in areas where bearing changes.

Cutting of pipe for inserting valves, fittings, hydrants and closure pieces shall be done by the Contractor in a neat workmanlike manner. Ductile iron pipe shall be cut only by means of abrasive saws, hack saws, wheel type cutters, or milling type cutters. The use of "squeeze" type pipe cutters and cutting torches will not be permitted. The use of diamond points and dog chisels will not be permitted. Cuts shall be made carefully by approved methods to produce clean, square cuts, to prevent damage to pipe lining and coating and to avoid waste. Pipe damaged by

the Contractor by improper or careless methods of cutting shall be replaced at his expense.

Deflections of joints shall not exceed fifty (50%) percent of the maximum deflection recommended by the pipe manufacturer, unless ordered by the Engineer.

BACKFILLING

After the pipe has been properly laid and inspected as required, the space between the pipe and the sides of the trench shall be filled to the middle of the pipe with selected materials free from stones and carefully rammed under and around the pipe to give it a firm foundation. Then the trench shall be filled with granular material to a point at least one (1') foot above the pipe with earth free from stones larger than 2-inches, and carefully rammed so as not to disturb the pipe to a compaction at least equal to the surrounding earth. The earth above this point shall be backfilled and compacted in nine (9) inch layers and addition of water may be required by the Inspector to achieve the required compaction. No stones larger than six (6") inches in diameter shall be allowed in trench backfill. Unsuitable materials excavated from the trench shall not be allowed as backfill and shall be replaced by suitable material, as approved by the Engineer, under this item.

Unsuitable material shall be as determined by the Engineer and shall include, but not be limited to such materials as, organic materials, roots, stumps, rocks, or bony backfill, clay silt, mud, wood, concrete slabs, or frozen soil.

Excess material and unsuitable material, excavated from the trench, shall be removed from the site as part of this item.

It shall be the responsibility of the Contractor to prevent water, earth, stone, sand or debris of any nature from entering the sewer lines. Should any material accidentally enter the line, it shall be flushed until satisfactorily cleaned.

INTERFERING STRUCTURES

The Contractor shall, under this contract, and as called for in the GENERAL CONDITIONS, sustain and protect from direct or indirect injury all pipes, poles, conduits, walls, buildings, roadways and other structures, utilities and property in the vicinity of his work.

TESTING THE PIPE

The Engineer may require any pipe length or portion of a pipe length to be tested for conformance to the material specifications. Such pipe sections shall be furnished and tested at the Contractor's expense. Failure of any pipe section to meet the specifications may be grounds for rejection of an entire batch or load. In addition to the tests prescribed by the ANSI specifications, the "Preliminary Evidence of Ductility" Test as prescribed by the New York City

Department of Water Resources may be used.

MEASUREMENT AND PAYMENT

The measurement for the quantity of pipe to be paid for under this item shall be the actual number of "LINEAR FEET" of pipe line, of the various sizes laid by the Contractor as measured along the center line of the pipe from joint to joint without regard to the lengths of the individual pieces of pipe or cuts, or joints required.

The payment for this item shall be on a linear foot basis and shall include all labor, materials, and equipment and any miscellaneous expenses for saw cutting concrete and asphalt, removal and disposal of excavated material and existing pipe, excavation and backfilling, tamping; for maintaining and sheeting the trench, for furnishing and laying of the pipe with all required jointing materials, and all appurtenances.

DEMOLITION AND REMOVAL

WORK

Under this item the Contractor shall furnish all labor, materials and equipment necessary to demolish and remove existing equipment and site features at the project site as required for the construction of the new work as shown on the Plans and specified herein. Any materials demolished for removal and not to be salvaged shall become the property of the Contractor and must be disposed of legally. The Contractor shall submit to the Engineer written permission from the owner of the proposed dump site prior to disposal. The items to be removed included under this section include, but not necessarily limited to, fence, asphalt, subbase, and drainage structures or pipe not associated with new work.

The Contractor shall at the direction of the Engineer, salvage equipment and materials existing on the site. Any equipment to be salvaged shall be made known to the Contractor in the field prior to demolition operations. These items shall be delivered by the Contractor to a location within the municipality.

Blasting and the use of explosives will not be permitted for any demolition work.

CONDITION OF STRUCTURES

The Owner and the Engineer assume no responsibility for the actual condition of structures to be demolished and removed.

Conditions existing at the time of inspection for bidding purposes will be maintained by the Owner insofar as practicable.

RULES AND REGULATIONS

The Building Code of the State of New York, shall control the demolition of structures.

DISPOSAL OF MATERIAL

All removed and demolished material and unwanted items of equipment and pipelines shall become the Contractor's property and must be removed from the site. Any existing equipment to be salvaged shall be made known to the Contractor prior to demolition operations. The Contractor shall be responsible for the careful and proper removal of items to be salvaged and shall not cause damage due to excessive force in disconnecting and removing equipment. The Contractor shall provide safe transportation of salvaged items to the Water Department or Highway Department or a location designated by the Engineer.

The dumping, burial, burning, storage, or sale of removed and demolished items on the site will not be allowed. All materials to be removed shall be disposed of in accordance with all applicable regulations.

SUBMITTALS

Submit to the Engineer for approval, a plan of the proposed methods and operations of demolition of the structures in accordance with the General Conditions prior to the start of demolition work.

TRAFFIC AND ACCESS

Conduct demolition operations, and the removal of equipment and debris to ensure minimum interference with abutting street and local traffic.

Special attention is directed towards maintaining safe and convenient access to the proposed facilities by the Owners' personnel and associated vehicles.

Do not close or obstruct streets, walks or other occupied or used facilities without permission from the Engineer. Provide alternate routes around closed or obstructed traffic in access ways.

PROTECTION

Conduct operations to minimize damage by falling debris or other causes to structures, roadways, and other facilities, including persons.

Exercise precautions for fire prevention. Acceptable fire extinguishers shall be available at all times in areas where demolition work by burning torches is being performed. Burning of demolition debris shall not be permitted on or near the site.

DAMAGE

Promptly repair damage caused to existing site features by demolition operations as directed by the Engineer and at no cost to the Owner. Repairs shall be made to a condition at least equal to that which existed prior to construction operations.

UTILITIES

Maintain existing utilities as directed by the Engineer to remain in service and protect against damage during demolition operations.

Do not interrupt existing utilities except when authorized by the Engineer. Provide temporary

services during interruptions to existing utilities as acceptable to the Engineer.

The Contractor shall be solely responsible for making all necessary arrangements and for performing any necessary work involved in connection with the discontinuance or interruption of all public and private utilities or services under the jurisdiction of the utility companies.

All utilities being abandoned shall be disconnected and terminated at the service mains in conformance with the requirement of the utility companies or the municipality owning or controlling them.

DUST AND NOISE CONTROL

The Contractor shall take all measures necessary to minimize the amount of dust and noise resulting from demolition activity.

MATERIALS

All materials or items of equipment required for the performance of the work of this Section shall be suitable for the intended purpose and shall be equal, where applicable, to similar items and materials specified in other sections of the technical specifications.

DEMOLITION

Demolition shall be performed to the limits shown on the Drawings or if no limits are shown, to a depth at least two (2') feet below final grade or two (2') feet below any new foundation or pipe.

Wet down work during demolition operations to prevent dust from arising. Provide maximum practical protection from inclement weather for materials, equipment and personnel.

Remove all existing work as indicated on the drawings and prepare adjoining areas for installation of new work. All demolition debris shall become the property of the Contractor and shall be removed from the site and properly disposed of by the Contractor. Demolition debris shall not be used for fill or backfill.

Blasting or the use of explosives will not be allowed for demolition work.

MEASUREMENT AND PAYMENT

The unit of measurement for payment shall be a "LUMP SUM" amount for furnishing all labor, materials and equipment and for performing all items of work complete as specified and shown on the plans. Where specified, the cost shall be included with those other items.

DRAINAGE STRUCTURES

WORK

Under this item the Contractor shall provide all labor, materials and equipment necessary to construct, rebuild, install, abandon, or remove all drainage structures, including catch basins, drain inlets, and control structures, as indicated on the plans and as specified. The Contractor shall supply all covers, grates, and frames, and also provide all pipe connections as required for a complete installation. The Contractor shall include connecting all existing pipe to the new drainage structures, which shall include all incidental work and material such as pipe, couplers, gaskets, etc.

The work shall include but not be limited to excavation, installation, and backfilling, maintenance of excavation area, dewatering and sheeting, supply and install subbase material, tamping and any incidentals necessary for a complete installation including cast iron castings and concrete lids.

Shop drawings with proposed elevations shall be submitted to the Engineer for approval prior to ordering materials.

DESCRIPTION

Drainage structures shall conform in shape, size, dimensions, materials, and other respects to the details indicated on the drawings and as specified.

Drainage structures walls shall be precast concrete masonry units. The top of the structure (not to exceed 6 inches) shall be built of brickwork to permit adjustment of the frame to meet the finished surface.

Drainage structures sumps shall be one-piece precast concrete or concrete masonry units on cast in place or precast concrete bases with a minimum sump depth of eighteen (18") inches, unless otherwise specified.

Unless otherwise specified or indicated, all concrete shall be 3,000 psi.

The cast iron frames and grates shall be standard as indicated on the drawings and as specified.

PRECAST CONCRETE MASONRY UNITS

Precast concrete masonry units shall be machine made solid segments, conforming to ASTM C139 "Standard Specification for Concrete Masonry Units for Construction of Catch Basins and Manholes", with the following exceptions and additional requirements:

- Type II cement shall be used except as otherwise permitted.
- The width of the units shall be as indicated on the drawings.

- The inside and outside surfaces of the units shall be curved to the necessary radius and so designed that the interior surfaces of the structures shall be cylindrical, except the top batter courses shall be designed to reduce uniformly the inside section of the structure to the required size and shape at the top.
- Units shall be designed such that only full-length units are required to lay any one course.
- Acceptance of the units will be on the basis of material tests and inspection of the completed product.

PRECAST CONCRETE SUMPS

Precast concrete sumps shall conform to the ASTM C478 “Standard Specifications for Precast Reinforced Concrete Manhole Sections”, with the following exceptions and additional requirements:

- The wall section shall be not less than six (6”) inches thick.
- Type II cement shall be used except as otherwise permitted.
- Sumps shall be cured by subjecting them to thoroughly saturated steam at a temperature between 100- and 130-degrees Fahrenheit for a period of not less than twelve (12) hours or, when necessary, for such additional time as may be needed to enable the sections to meet the strength requirements.
- No more than two lift holes may be cast or drilled in each sump.
- Acceptance of the sumps will be on the basis of material tests and inspection of the completed product.

All holes in sumps used for their handling shall be thoroughly plugged with rubber plugs made specifically for this purpose or with mortar. The mortar shall be one (1) part cement to 1-1/2 parts sand, mixed slightly damp to the touch (just short of “balling”), hammered into the holes until it is dense and an excess of paste appears on the surface, and then finished smooth and flush with the adjoining surfaces.

BRICK

The brick shall be sound, hard, and uniformly burned brick, regular and uniform in shape and size, or compact texture, and satisfactory to the Engineer. Brick shall comply with the ASTM C32 “Standard Specification for Sewer and Manhole Brick (made from Clay or Shale)”, for Grade SS, hard brick, except that the mean of five (5) tests for absorption shall not exceed eight (8%) percent by weight.

Rejected brick shall be immediately removed from the work.

MORTAR FOR BRICKWORK

The mortar shall be composed of Portland cement, hydrated lime, and sand, in which the volume

of sand shall not exceed three times the sum of the volume of cement and lime. The proportions of cement and lime shall be as directed and may vary from 1:1/4 for dense, hard-burned brick to 1:3/4 for softer brick. In general, mortar for grade SS Brick shall be mixed in the proportions of 1:1/2:4-1/2.

Cement shall be Type II Portland cement as specified for concrete masonry.

Hydrated lime shall be Type S conforming to the ASTM C207 "Standard Specification for Hydrated Lime for Masonry Purposes".

MORTAR FOR MASONRY UNITS

The mortar shall be composed of one (1) part Portland cement and two (2) parts of sand by volume with sufficient water to form a workable mixture. Cement and sand shall be as specified for mortar for brickwork.

LAYING BRICKWORK AND MASONRY UNITS

Only clean units shall be used. Bricks shall be moistened by suitable means, until they are neither so dry as to absorb water from the mortar nor so wet as to be slippery when laid. Concrete masonry units shall be dry when laid.

Each brick shall be laid in a full bed and joint of mortar without requiring subsequent grouting, flushing, or filling, and shall be thoroughly bonded.

Each concrete masonry unit shall be laid in a full bed and joint of mortar and shall be thoroughly bonded. Vertical keyways shall be completely filled with mortar.

PLASTERING AND CURING BRICK MASONRY

Outside faces of brick masonry shall be plastered with mortar from 1/4 inch to 3/8 inch thick. If required, the brick masonry shall be properly moistened prior to application of the mortar. The plaster shall be carefully spread and troweled. After hardening, the plaster shall be carefully checked by tapping for bond and soundness. Unbonded or unsound plaster shall be removed and replaced.

Brick masonry and plaster shall be protected from too rapid drying by the use of burlaps kept moist, or by other acceptable means, and shall be protected from the weather and frost, all as required.

DRAINAGE STRUCTURES FRAMES AND GRATES

The Contractor shall furnish and install all cast iron drainage structures frames and grates conforming to the details indicated on the drawings and as specified.

The castings shall be of good quality, strong, tough, even grained cast iron, smooth, free from scale, lumps, blisters, sand holes, and defects, of every nature which would render them unfit for the service for which they are intended. Contact surfaces of grates and frame seats shall be machined to prevent rocking of grates.

All castings shall be thoroughly cleaned and subject to a careful hammer inspection.

Castings shall be at least Class 25 conforming to the ASTM A48 "Standard Specifications for Gray Iron Castings".

Before being shipped from the foundry, castings shall be given one coat of coal-tar pitch varnish, applied in a satisfactory manner so as to make a smooth coating, tough, tenacious, and not brittle nor with any tendency to scale off.

Unless otherwise specified or indicated on the drawings, castings in paved areas shall be capable of withstanding H-20 loading and shall meet the requirements of the municipality in which they are installed.

SETTING COVERS, GRATES, AND FRAMES

Cover and grates shall be set with the tops conforming accurately to the grade of the pavement or finished ground surface, or as indicated on the drawings or as directed.

Circular frames shall be set concentric with the top of the masonry. All frames shall be set in a full bed of mortar such that the space between the top of the masonry and the bottom flange of the frame shall be completely filled and made watertight. A thick ring of mortar extending to the outer edge of the masonry shall be placed around the bottom flange. The mortar shall be smoothly finished and have a slight slope to shed water away from the frame.

Grates or covers shall be left in place in the frames on completion of all other work at the structure.

DRAINAGE STRUCTURES ADJUSTED TO GRADE

Existing drainage structures tops shall be adjusted to line and grade as indicated on the drawings or as directed by the Engineer. All drainage structures adjusted to grade shall be provided with brick as required for new catch basins.

MEASUREMENT AND PAYMENT

The quantity of drainage structures to be paid for under this item shall be the number of “EACH” drainage structures constructed, in accordance with the plans and specifications and directions of the Engineer. The price bid shall be a unit price per drainage structures in place with grates and frames and for providing all pipe connections required for a complete installation and shall include furnishing all labor, materials and equipment to complete all work.

ELECTRICAL

WORK

Under this item, the Contractor shall furnish all labor, materials and equipment necessary to furnish and install site lighting (including fixtures, bases, anchors, mounts, luminaires), conduit, wiring, service connections, junction boxes, and all others to have a complete electrical system in accordance with the plans and specifications, to the satisfaction of the Engineer. Work shall include all concrete, grounding, various electrical appurtenances, fittings, conduit bedding, and backfill necessary to make proposed site lighting functional. The work shall be performed and supervised by a New York State Licensed Electrician.

CODES AND STANDARDS

All materials furnished and all work installed shall comply, where applicable, with the requirements of the General Specifications, the current New York State Building Code, Local Codes, the National Electrical Code and Con Edison Codes. Whenever reference is made of "National Electrical Code", or "NEC", it shall mean the latest edition of the National Electrical Code.

Material and work shall comply with other Codes and Standards as may be specified or referenced.

Where applicable or specified herein, all material and devices furnished shall meet requirements of Underwriter's Laboratories, Inc., shall be U.L. listed, and where further applicable, shall bear the U.L. listing mark.

UNDERWRITER'S CERTIFICATE

The Contractor shall also supply to the Owner an Underwriter's certificate. The Contractor must notify the Underwriter by submitting a permit prior to the start of construction. The licensed agency must be reviewed and accepted by the Engineer prior to issuance of the certificate.

POWER SHUTDOWN

All work involving the electrical service shall be coordinated with and approved by the electrical utility company and the Engineer. The contractor shall pay all fees associated with the electric service modifications. The Contractor shall notify the electric utility company immediately upon award of contract to coordinate electric service modifications. The Contractor shall also notify the Engineer and Owner in writing at least two weeks in advance of any interruption of service to any building and the duration of the shutdown. All work involving a shutdown shall be performed during premium time, at no additional cost to the client.

GROUND FAULT PROTECTION

The Contractor shall provide Ground Fault Protection for Personnel at the construction site in accordance with Article 590.6 of the 2014 NEC, and any addenda or revisions thereafter.

SHOP DRAWINGS, SAMPLES, EQUALS

The Contractor shall submit shop drawings, samples, and product information as required for review by the Engineer. No materials shall be purchased or installed until approved by the Engineer.

Samples:

The Contractor shall submit drawings for approval. No work shall proceed until drawings are approved. The contractor will be allowed only one resubmission to make all necessary corrections on the sample to fully comply with the specifications within 30 consecutive days. The Engineer can issue a written extension, if deemed necessary. Rejection by the Engineer will be final.

Or-Equal:

If a product is to be submitted as an “or-equal”, the Contractor must submit with the bid the following information. A professional engineer certified and stamped report that the product has been tested for wind loading and that the welding has been performed by a certified welder. The report must be included within the bid package to be acceptable prior to the bid opening. The “or-equal” product must look like the approved product in proportion and design. The Engineer can request that the “or-equal” manufacturer provide 5 different installation locations where they can observe and evaluate the installed products and how well the finish has stood up to the weather. Each installation must be at least 5 years old. It will be the Contractor’s responsibility to pay all expenses “to and from” those locations, including food and lodging, for the Engineer to review “or-equals”. Samples must be provided for all “or-equals”.

PACKING, SHIPPING, STORING

The Contractor shall be responsible for the shipping and handling of all materials. All materials delivered to the site shall be handled with care and stored and protected in an acceptable manner and in accordance with the manufacturer’s recommendations and Engineer’s direction. Delivered materials shall be promptly inspected and any damaged materials shall be immediately returned for replacement as not to hold up construction.

Each lighting fixture be separately wrapped in a protective covering to prevent damage in shipping. One luminaire, with a refractor, shall be packed in a cardboard carton. Unless otherwise stated in the schedule, uniform packing shall be maintained for each delivery. Every carton or package shall be labeled on the narrow side with the quantity, unit, description, vendor, name, commodity code, shipping instructions, and order/contract numbers. Contract vendor’s packing list must accompany delivery and must be attached to bill of lading and not attached to carton or inserted therein. Separate packing list for each individual shipping instruction or order is required and shall not be consolidate onto one packing list.

SAND FOR CONDUIT TRENCHING

Sand shall conform to NYSDOT Item No. 703-06, Cushion Sand.

BACKFILL FOR CONDUIT TRENCHES

All backfill material for trenches shall be clean, free of stones greater than 2 inches in diameter, cinder, ash, and debris. A minimum 3 inches cushion of sand shall be placed beneath conduits where rocks are encountered. Backfill up to 12 inches from the top row with cushion sand as specified.

All backfill material shall be placed in layers not exceeding 12 inches in depth, and shall be compacted by hand tamping within 12 inches above the conduits. The balance of backfill material may be machine tamped.

Sandbags (6" x 6" x 12") shall be placed between electric, gas and buried facilities to maintain adequate clearances.

MATERIALS:

Crushed Stone:

The 6" compacted subbase shall be a graded base material conforming to the requirements for Item 08304.019706 of the NYSDOT Standard Specifications for Construction and Materials.

120/240V Wire:

- A. General: Service entrance wire and wire concealed in concrete, below slabs-on-grade, and underground shall be type Type XHHW-2, single conductors in raceway, rated 600V. Wire shall be manufactured by Rome Cable, or approved equal. THHN is acceptable for wiring located above ground and within the bollard.
- B. Wire shall have copper conductor sized as shown on the plans; and if not shown, as required by NEC.
- C. All wire furnished shall bear U.L. labeling indicating type, voltage rating and conductor size.
- D. Color Coding.
 - 1. Each wire shall be color coded and constant phase line or circuit color coding shall be maintained. Insulation shall be provided in colors indicated below.
 - 2. Color coding for 208/120v circuits shall be as follows:

Phase A – Black	Neutral – White
Phase B – Red	Ground – Green or Bare
Phase C – Blue	as shown, if not required by NEC
- E. There shall be no splices in raceways.
- F. Wire splices shall have an insulation at least equal to that of the original wire. Splices shall be made with crimp connectors and subject to the approval of the Engineer.
- G. Wiring may be grouped in a raceway at the option of the Contractor providing complete compliance with NEC is maintained including limitations on number of conductors.

H. Contractor shall submit shop drawings of the wire intended to be used.

Panels & Meters:

Electric meters shall be as provided by the utility company. The breaker panel shall be rated for exterior use. The panel and breakers shall be of the size necessary for the intended use and shall be submitted to the Engineer for review and approval prior to ordering or installing. At least two spare breakers shall be provided. The meter and panel shall be securely supported in a manner consistent with NEC requirements. The location of the meter and panel shall be reviewed in the field prior to installation.

Tighten connectors and terminals, including screws and bolts, in accordance with equipment manufacturer's published torque tightening values for equipment connectors. Provide properly wired electrical connections for panelboards within enclosures. Breakers shall only be single tapped; double or triple taps will be rejected. Fill out panelboard's circuit directory card upon completion of installation work.

Conduit:

- A. All conduit installed in wet locations, or where exposed to weather, shall be rigid galvanized steel conduit (RGS). Conduits installed underground shall be schedule 40 PVC or HDPE rigid conduit as noted on the Contract drawings and shall adhere to electrical safety standards of NEC, Con Edison, and NYSDOT Standard Specifications.
- B. Conduit shall be 2" or as shown on the Contract drawings. If not indicated, it shall be the minimum trade size recommended by the NEC.
- C. All provisions of NEC Article 346 shall apply, except as specified herein or shown on the plans.

Grounding:

- A. The Contractor shall provide a grounding system electrically continuous throughout with necessary ground straps, ground wire, ground bushing, and ground rods required to provide a complete, interconnected system ground throughout the work as recommended by the NEC Article 250.
- B. Conduit, raceway and ground connections shall be secure, tight, and continuous.
- C. Ground bushings shall be furnished at all conduit ends, junction boxes and similar locations.
- D. Insulated green ground conductors shall be provided where shown on the plans.

Light Fixtures:

The light pole, base, globe and lamp shall generally match the existing lights in the Croton Falls downtown area in style, material, color, and size. The light shall be as manufactured by VISCO of Eugene, OR or Engineer approved equal. The lamp shall be LED with temperature and color to match other existing lights unless otherwise approved.

Concrete Footing

Concrete footing material requirements, mix preparations, manufacturing and installation shall comply with the specifications for Class A concrete in Section 501 "Portland Cement Concrete-General" of the NYSDOT Standard Specifications for Construction and Materials, dated May 1, 2008 and all addenda thereto. Concrete shall contain an air entraining agent and shall have strength

of 4,000 lbs. per square inch at 28 days. Footings shall be poured and constructed to the dimensions indicated on the drawings or as directed by the Engineer.

The use of precast concrete footings shall be acceptable with the review of shop drawings by the Engineer.

Anchorage:

The fixture bases shall be anchored to the ground using galvanized anchor bolts cast into concrete foundation or as required by the manufacturer. All bolts and hardware shall have all exposed surfaces hot dip galvanized. Anchor bolts shall be positioned using a template with the bolt circle as recommended by manufacturer. The bolts shall have 1.5-inches of thread exposed above the concrete foundation.

Junction Boxes and Pull Boxes:

To house the three-way or similar connections in an exterior situation, the Contractor shall provide exterior grade junction box, of the sizes necessary. The box shall be a concrete underground solid box enclosure of Quazite Polymer with a green locking cover with the logo "LIGHTING", as manufactured by Hubbell Power Systems, Inc. of Columbia, SC or approved equal.

Red Warning Tape:

Red detectable warning tape (C/S #024-6496) shall be laid continuously at the bottom of the last 12" layer of backfill covering the electric conduits.

EXECUTION

All work shall be performed in a phased and orderly manner and coordinated with the Engineer.

- A. The Contractor shall be permitted local power shutdowns during normal working hours. Shutdowns shall be limited to 2 hours per working day. Shutdowns must be scheduled 2 business days in advance and coordinated with the Engineer.
- B. The Contractor must restore power as soon as possible upon completion of each shutdown period.
- C. The Contractor shall be responsible for maintaining lighting at all times and shall proceed in a manner that is acceptable to the Engineer and the Owner.

Lighting fixtures shall be placed as shown on the drawings and details. Prior to installation, Contractor shall layout the location of all lighting fixtures in the field with stakes for approval by the Engineer.

The conduit shall be laid in a trench, as shown in the details and at the locations shown on the plans. The conduit shall be laid on firmly tamped and graded cushion sand not less than two (2) inches deep. Backfill in contact with the conduits shall be cushion sand to a minimum of three (3) inches above the conduits and the remainder of the backfill shall be unfrozen, stone-free earth. Buried depth shall be 24". Detectable warning tape shall be placed as specified.

FINAL TEST AND INSPECTION

The Contractor shall be required to demonstrate to the satisfaction of the Engineer that all the electrical systems, equipment and devices operate as specified. A third party inspection of the work shall be provided to the Engineer.

RECORD DRAWINGS

The Contractor shall record, neatly and legibly, all approved changes, revision, corrections and pertinent "AS BUILT" information on a clean set of black and white Contract plans. Upon completion of the project, the Contractor shall submit one set of black and white plans, in good condition, with Field notes and "AS BUILT" information to the Engineer.

MEASUREMENT AND PAYMENT

The measurement for payment shall be a "LUMP SUM" amount for furnishing all labor, materials and equipment for performing all electrical work items as specified and shown on the plans. The work shall be performed by a New York State Licensed Electrician. This includes furnishing, installing, connecting, and testing all conduits, conductors, wiring, grounding, light fixtures, lamps, bases, meters, panels, posts, supports, hardware, and all appurtenant electrical work for the project as specified, as shown on the plans, and as directed by the Engineer. This shall also include trenching, back filling, and detectable warning tape. The Contractor shall submit electrical line diagrams, shop drawings and operation and maintenance manuals for approval and provide the services of a qualified manufacturer's representative to perform equipment start-up, testing, calibration and certification of the work.

The lump sum amount shall be paid to the Contractor in percentages of the lump sum amount bid for completed work as determined by the Engineer. Any completed work requisitioned for payment must be tested, calibrated and certified for compliance by the manufacturer or third party in writing prior to payment for said work being processed.

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EROSION AND SEDIMENT CONTROLS

WORK

Under this item the Contractor shall furnish all labor, materials and equipment required to furnish and install erosion and sediment control devices in accordance with the plans and specifications and any supplementary measures deemed necessary by the Engineer to minimize erosion and prevent sediment laden runoff from leaving the construction site. The Contractor shall maintain all devices during construction and shall remove and dispose of all erosion control devices upon stabilization of soils and/or completion of construction as directed by the Engineer. The Engineer may request additional erosion and sediment control devices if he deems necessary.

This section includes the temporary construction entrance, silt fence, inlet protection, and erosion control mats, and temporary stabilization.

The project is located in the NYC Watershed and creates more than 5,000 SF of disturbance. A Stormwater Pollution Prevention Plan (SWPPP) has been developed for the project. NYC Department of Environment Protection (NYCDEP) and NYS Department of Environment Conservation (NYSDEC) requirements must be adhered to by the Contractor. The Contractor shall be a "trained contractor" as defined by the SPDES General Permit for Stormwater Discharges from Construction Activity GP-0-20-001.

METHOD

The Contractor shall install erosion control devices in conformance with the standards in the latest edition of the "New York State Standards and Specifications for Erosion and Sediment Control" (SSESC).

Control measures shall be in place as shown on the plans prior to the start of construction. Finished grades shall be established as quickly as possible and slopes stabilized with topsoil, erosion control matting, straw, mulch and seed or with sod as described in related specifications. Earthwork and seeding work will be paid for separately under its own bid item.

MATERIALS

The Contractor shall provide temporary erosion control devices as required and as shown on the plans to prevent erosion and to filter sediment laden runoff from areas disturbed by construction.

Inlet protection devices shall be installed at all catch basins in order to filter sediment laden runoff entering the drainage system.

Rolled erosion control blankets, also refer to as anchored stabilized matting, shall be provided on all slopes equal to or steeper than 1:3 (V:H). Area under the blankets shall be graded smooth, free

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of debris, rills, depressions, and mounds. Blankets shall be shingled and all edges overlap a minimum of four (4") inches. The blankets shall be installed and anchored to the slopes per manufacturer's recommendations. Blankets shall be approved by the Engineer prior to ordering and installing.

Silt fence shall be installed as shown on the plan or as directed by the Engineer. Silt fence shall be installed parallel to the topographic contours downstream of the construction activities.

MAINTENANCE

Erosion control measures shall be inspected maintained and inspected in accordance with the SPDES General Permit, the SDESC manual, and the project's SWPPP. After each rainfall, the Contractor shall inspect all control devices and clean, repair, or replace any controls as required or as directed by the Engineer. Sediment transported downgrade beyond the construction site, shall be promptly removed by the Contractor.

Erosion and sediment control measures shall remain and be maintained by the Contractor until the contributing tributary area achieves final stabilization. Per the SPDES General Permit, final stabilization "means that all soil disturbance activities have ceased and a uniform, perennial vegetative cover with a density of eighty (80) percent over the entire pervious surface has been established; or other equivalent stabilization measures, such as permanent landscape mulches, rock rip-rap or washed/crushed stone have been applied on all disturbed areas that are not covered by permanent structures, concrete or pavement". After final stabilization has been achieved and accepted by the Engineer, erosion and sediment controls shall be promptly removed by the Contractor.

MEASUREMENT AND PAYMENT

The measurement and payment for any erosion and sediment control devices shall be included in the "LUMP SUM" amount bid for furnishing all labor, materials and equipment necessary for the proper and complete installation of the erosion controls including all incidentals as specified and shown on the plans. Routine inspection and maintenance shall be included.

A payment of up to fifty (50%) percent may be paid upon installation of the erosion controls. The remaining fifty (50%) may be paid only upon the completion of the project, final site stabilization, and approval of the Engineer.

PAVEMENT MARKINGS

WORK

Under this item the Contractor shall furnish all labor, materials and equipment necessary to install epoxy reflectorized traffic line markings, painted symbols, letters and special markings as shown on the plans and as ordered by the Engineer.

MATERIAL AND METHOD

The Contractor shall conform to the New York State Manual of Uniform Traffic Control Devices, the New York State Department of Transportation Specifications dated May 1, 2016 and all subsequent addenda and revisions, for Specification Section 685 and 727, concerning the materials and installation of the Epoxy Reflectorized Pavement Markings, or as directed by the Engineer. The markings shall be white, yellow and blue as directed by the Engineer.

MEASUREMENT

Pavement striping will be measured by the "LINEAR FOOT" along the centerline of the strip. Symbols will be measured per "EACH" unit applied. A headed arrow or handicap symbol is considered one unit. Letters shall be measured per "EACH" letter.

PAYMENT

Payment shall be at the unit price bid per linear foot of epoxy pavement striping actually installed and for each painted symbol and letter actually installed as indicated on the bid sheets and shown on the plans. This payment shall include all labor, materials and equipment necessary to install the work as herein described to the satisfaction of the Engineer. Any pavement markings installed improperly and rejected by the Engineer shall be completely removed and replaced by the Contractor at no additional cost of the Owner.

POLYVINYLCHLORIDE#DRAIN PIPE AND FITTINGS

WORK

Under this item the Contractor shall furnish all labor, materials and equipment necessary to install polyvinylchloride (PVC) pipe and fittings, including bends, couplings, unions, clamps, etc., under proposed sidewalks and through curbs, and shall provide all pipe connections to existing and/or proposed catch basin, manholes, drain pipes, downspouts, and roof leaders as shown on the plans, specified herein, and as directed by the Engineer.

Under this item the Contractor shall be required to install PVC drains for existing pipes presently discharging to grade as shown on the plans. Existing drain pipes located under the sidewalk shall be handled under related sidewalk specifications.

MATERIALS

All materials shall conform with NYSDOT Standard Specification requirements as applicable. Polyvinyl Chloride (PVC) pipe and fittings shall meet or exceed all of the requirements of ASTM specification D3034, "Type PSM Polyvinyl Chloride (PVC) Sewer Pipe and Fittings". Fittings shall be the socket type for solvent welded joints conforming to ASTM D2467 and D2466. Solvent shall be as specified in ASTM D2564. Fittings, couples and unions shall be of the same schedule number and manufactured of the same materials as the pipe. Prior to implementation or ordering materials, the Contractor shall provide the Engineer submittals for the downspout system.

METHOD

The pipe shall be placed at the locations shown on the plans and as directed in the field by the Engineer. All existing leaders and drain pipes shall have the pipe extended to meet them and all necessary fittings, bends, etc., shall be employed to make the connection. The pipe shall connect to the drainage structures. A minimum pitch of 1/8 inch per foot and adequate pipe cover is required. All pipes and connections must be in place prior to the installation of the concrete sidewalks and curbs.

Unless otherwise directed by the Engineer, all pipe shall be 6" in diameter. Prior to installing conveyance pipe, the Contractor shall notify the Engineer and review the locations.

MEASUREMENT AND PAYMENT

The quantity of pipe to be paid for under this item shall be the actual number of "LINEAR FEET" of pipe for the sizes specified as installed by the Contractor, as measured along the center line of the pipe from center to center of fitting without regard to the lengths of the individual pieces of pipe or cuts, or joints required. The payment shall include all labor, materials and equipment and other miscellaneous expenses for excavation and backfilling and for furnishing and laying of the pipe with all required jointing materials and for providing all structure penetrations and pipe connections as specified and directed by the Engineer.

RESTORATION

WORK

Under this item the Contractor shall provide all the labor, material, and equipment necessary to restore the site to its original condition. All man-made and natural features in the construction site disturbed or removed for the proper completion of the work shall be reset or replaced. All man-made or natural features damaged or destroyed shall be repaired or restored to a condition equal to or better than that existing at the start of the work, with materials equal to or better than the original ones.

Physical features damaged outside the limits of the work, as determined by the Engineer, shall be repaired as described in the "GENERAL CONDITIONS".

Restoration of utility lines of private companies or municipalities is covered under the "GENERAL CONDITIONS" and is not included as part of this item.

SCOPE

After the new work in an area has been completed, tested and accepted, or when ordered by the Engineer, the restoration of all the man-made and natural features disturbed shall proceed.

These features are of the general types outlined below but not necessarily limited to these specific items, as this specification item covers all required restoration work within these general categories:

Trees, shrubbery and bushes.

Gardens (rock gardens, flowers, annual, perennials, etc.) with all soils and mulches.

Ground Covers (pachysandra, myrtle, phlox, ivy, etc.) with all soils and mulches.

Lawns (fescues, bluegrasses, perennial ryes, zoysia, etc.) with all topsoil or sod. See paragraph "GRASS AREAS" below.

Walls and Wall Footings (stone, masonry, brick, dry bound, etc.).

Fences (chain link, picket, board, barbed wire). This shall include such new work as footings, guys or braces as may be required to secure work.

Sidewalks, Pathways, Patios (concrete, flagstone, crushed stone, precast slab, brick, gravel, slate, terrazzo, tile). The Contractor shall provide all labor, materials and equipment required to restore all concrete walkways and sidewalks etc. intersecting the new work as specified on the plans and as directed by the Engineer. The work shall include furnishing crushed stone, concrete and any other replacement material required to restore the disturbed area to the satisfaction of the Engineer.

Curbs and curb footings (concrete, asphalt, granite, stone, brick, metal, etc.).

Driveways (Concrete, slab, gravel, crushed stone and asphalt). The Contractor shall supply all labor, material and equipment required to restore all driveways intersecting the new work as specified on the plans and as directed by the Engineer. The work shall include furnishing and installing crushed stone or gravel, bituminous top course, concrete and reinforcing material, etc. to repave the surface to existing grade.

Private Underground Utilities (footing drains, roof leader drains, dry wells, private electric cables, sprinkler system, swimming pool appurtenances, septic fields, etc.).

Front or Rear Yard Man-Made Features (mail boxes, sign posts, lamp posts, dog houses, bird baths, pigeon coops, storage sheds, fireplaces, barbecue pits, trash burning pits, playing courts, religious creches, awnings, gates, wells, etc.) can best be handled if they are carefully removed and replaced after the construction. Those disturbed, damaged, or destroyed shall be reset, repaired, or replaced.

EQUIVALENT ITEMS

All features damaged or destroyed shall be repaired or restored with features equal to or better than the original ones. The Contractor shall make all reasonable attempts to satisfy the Owner but the Engineer shall be the judge as to the reasonableness of equivalency of repaired and restored features.

In cases where it is impossible to replace an item with an equivalent item (large trees, exotic plants), the Contractor may substitute other similar items whose total value shall equal that of the destroyed one. This shall be done to the satisfaction of the Owner. In such cases the Contractor shall secure a written release from the home stating that he is accepting a substitute for the destroyed item and that he releases the Contractor and the Owner from further claims for said item. The Engineer shall be the judge of the value of the destroyed and the value of the restored items and the reasonableness of the substitution.

GRASS AREAS

Immediately after backfilling, grass areas shall be temporarily restored using fast germinating annual or perennial rye grass seed. The patched area shall be watered as necessary to insure proper germination.

All disturbed grass areas shall be permanently replaced during the planting seasons from April 7th to May 15th and from August 25th to October 1st as follows:

Harrow the ground. Remove weeds and other undesirable growth.

Furnish and place a minimum of four (4") inches of screened topsoil obtained from a local nursery.

Rake and grade topsoil to match adjoining area; the Engineer is to approve the grading before fertilizing and seeding.

Furnish and place 15 lbs. of fertilizer containing ten (10) parts Nitrogen, six (6) parts of Phosphoric Acid and four (4) parts of Potash (10-6-4) to every 1,000 square feet of area.

Furnish and place 10 lbs. of grass seed mixture to every 1,000 square feet of area containing, by percentage of weight, the following seed (NYSDOT Standard Specifications):

For Roadside areas, use:

- 50-70% Fine Fescue (*Festuca rubra*), 2 varieties min., including “creeping red”
- 15-40% Perennial Ryegrass (*Lolium perenne*), 2 varieties min., “turf” type
- 5-15% Annual Ryegrass (*Lolium multiflorum*)
- 5-10% White Clover (*Trifolium repens*), other varieties may be acceptable

For Lawn areas, use:

- 30-50% Fine Fescue (*Festuca rubra*), 2 varieties min., including “creeping red”
- 15-40% Kentucky Bluegrass (*Poa pratensis*), 3 varieties min.
- 15-40% Perennial Ryegrass (*Lolium perenne*), 2 varieties min., “turf” type
- 5-15% Annual Ryegrass (*Lolium multiflorum*)

If the above mixtures are unavailable, the Contractor shall request permission to utilize a specific comparable mixture.

The Contractor shall water the new grass until the grass reaches a stand of four (4”) inches.

The Contractor shall be responsible for all restored grass areas until final acceptance by the Owner. He shall regrade, reseed, refertilize, etc., any grass that has failed to maintain a dense stand of any area that has lost its grade due to settlement of the trench. The finished restored area shall be free of weeds and shall have the same density of grass as the adjoining areas.

In lawn areas that contain Zoysia grasses, the Contractor shall replace the area with the same.

In lieu of the above method placing topsoil and seeding, the Contractor may substitute sodding at his own option and at no extra cost to the Owner.

PROTECTION OF TREES

Tree trunks are to be protected with heavy wooden fences. All trees in the vicinity of construction activity are to be secured, in a manner acceptable to the Engineer, to prevent toppling. The Contractor shall avoid cutting more than one-third (1/3) of a tree root system, as measured by the perimeter of the canopy. The Contractor shall avoid cutting roots greater than one (1”) inch in diameter. Under low canopy trees the Contractor shall modify the vertical extension of the

construction equipment boom to avoid injury to the low tree branches. Construction equipment movement in the vicinity of trees shall be kept to a minimum to avoid compaction of the soil around the trunks of trees. During backfill operations the Contractor shall avoid excessive tamping of earth around tree roots and trunks and shall apply an approved mulch to the roots during the operation.

MAINTENANCE

All work done as part of this item shall be maintained for a period of two (2) years after completion of the project by this contract and secured by the maintenance bond.

Trenches that have settled shall be refilled to the proper grade. If this refilling operation disturbs the previous restoration of lawns, etc., the lawns, etc., shall again be restored to their original condition under this item and at no additional cost to the Owner.

Items replaced, replanted or restored shall be protected to ensure their proper establishment. This protection may take any form required, such as guying, wrapping, covering, barricading, shoring, signage, etc.

REGRADE SURFACES TO FINISHED GRADE

In some instances, grading by machines will not be considered as properly or satisfactorily graded to the required finished grades. In these instances, hand grading such as raking, rolling, trimming, etc., will be ordered by the Engineer to complete the work satisfactorily.

DELETION OR ADDITION OF WORK

If the alignment of a pipe line is changed and it results in an increase or decrease of restoration work, adjustment of payment for this item shall be made. In general, the adjustment shall be based on the proportion that the change bears to the total of all the restoration work and the bid price for this item. For any increase in the work, the increase in payment shall in no case exceed the cost of labor, materials and equipment plus percentage allowances computed as outlined in "GENERAL SPECIFICATIONS" section "CHANGES IN THE WORK, COST-PLUS BASIS".

RELEASES

The Owner may require the Contractor to obtain a written release from any or all private property owners and/or public agencies as to satisfactory restoration of easement or permit areas, or written acceptance of other considerations or substitutions in lieu of such satisfactory restoration. Final payment may be withheld pending receipt of such releases.

MEASUREMENT AND PAYMENT

No measurement for payment under this item shall be made, as this item includes all work or materials that may be required to restore the site.

Deductions shall be made for work improperly or unsatisfactorily done. The Owner reserves the right to use such funds to hire other contractors to properly complete the work.

Payment for this item shall be included in the base bid for all other items in this Contract, whether called for on the plans or not, as required to restore the site to its original condition. The price bid shall include the cost of furnishing all labor, materials and equipment necessary to complete the work as specified herein, and to maintain it.

If any restoration work is covered by a separate item listed on the proposal sheet, it shall be paid for under such item and shall not be included under this item.

RIPRAP

WORK

Under this item the Contractor shall furnish all labor, materials, and equipment required to install hand placed stone riprap, gravel bedding and filter fabric material as specified herein and indicated on the plans and directed by the Engineer.

Riprap shall consist of a protective covering of stones laid on slopes to ensure the protection of embankment slopes. Backing layers shall be used as indicated on the plans.

MATERIALS

Facing stone:

Stone shall conform to the size and gradation specified on the plans and shall be uniformly graded. The stone shall correspond to the following quality requirements:

Parameter	ASTM Test Method	Requirement
Specific Gravity	C127-73	2.50 min.
Absorption	C127-73	2% max.
Soundness of Aggregate	C88-73	5% max. loss

Stone shall be of such shape as to form a stable protective structure for the required sections. Stone size shall 6"-8" in diameter and of such shape as to form a stable protective structure for the required sections. In general, riprap stone shall be angular in shape; rounded cobbles or boulders may be used on areas flatter than 1:2 (V:H) with the approval of the Engineer. Flat or needle shapes will not be accepted unless the thickness of the individual pieces is greater than one-third the length.

Backing Layer:

Backing layer shall be ¾" broken stone, free of shale or other soft, poor durability particles. Contractor shall provide a sample of material to the Engineer for approval prior to placement.

Crushed Stone Subbase:

Stone shall conform in every respect to the requirements contained in these specifications and those set forth for "Bases and Subbase", Section 300 of the New York State Department of Transportation Standard Specifications item 304.05. The depth of the subbase shall be as shown on the plans.

Bedding Materials:

Bedding materials shall conform to the requirements of New York State Department of Transportation Standard Specifications, Section 620. Filter fabric shall be nonwoven Mirafi 140N or Engineer approved equal.

METHOD

The areas to be riprapped shall be trimmed and dressed to conform to the lines and grades indicated on the plans prior to placing backing and the riprap.

Gravel backing shall be placed and spread on the prepared areas where indicated on the drawings. The backing material shall be compacted to a dense stable condition.

Voids in existing rock rubble fill shall be choked with gravel and sand placed by machine until all interstices are filled.

Rocks shall be placed so as to provide a minimum of voids. The larger rocks shall be placed in the foundation course and on the outside surface of the slope protection. The rock shall be placed by machine and spreading into position by hand. Large stone placement by dumping will not be allowed unless written approval is obtained by the Contractor from the Engineer.

Slope protection shall be dressed up by final rearranging of the outer facing course so that the outward face of stone presents a smooth surface and the local surface irregularities do not vary by more than 0.5 feet measured at right angles to the slope.

Voids in the outer facing course shall be chinked with smaller stone and all loose stone shall be removed from the finished face.

At the completion of slope protection work, the footing trench shall be filled with excavated material and compaction will not be required.

MEASUREMENT AND PAYMENT

The quantity to be paid for under this item shall be the number of "SQUARE YARDS" of in place riprap. Riprap shall be measured by the exposed surface areas completed and approved by the Engineer.

The unit price bid per square yard for rip rap shall be full payment for furnishing all labor, equipment and materials, including but not limited to surface preparation, placement of filter fabric and bedding material, installation of stone riprap and any incidentals required to complete the work as shown on the plans and to the satisfaction of the Engineer.

SAW CUTTING PAVEMENT

WORK

Under this item, the Contractor shall furnish all required labor, material and equipment necessary to saw cut existing concrete and asphalt pavement, roadways, driveways, curbs and other pavements shown on the plans and as directed by the Engineer.

METHOD

The Contractor shall use an approved saw, which will result in a neat clean, straight cut. Lines shall be drawn on the existing pavement at the Engineer's direction, and the concrete shall be cut to a depth which will ensure the required edge. Care shall be taken so as not to damage existing pavement or curbs adjacent to the section being removed. The use of fire hydrants to supply the water for the operation of the saw shall not be permitted.

Workers shall wear necessary safety clothing and eye protection while operating saw cutting equipment and shall be thoroughly familiar in the safe operation of the equipment. The Contractor shall be responsible for all safety practices.

MEASUREMENT AND PAYMENT

There will be no separate payment made under this item. All costs related to this work shall be included in the cost of other items of work in this Contract. Saw cuts will be required at all driveways and roadways intersecting the proposed work.

SHUTOFF VALVES, CURB BOXES AND LIDS

WORK

Under this item the Contractor shall supply all labor, materials and equipment required to furnish and install shutoff valves (or “curb valves” or “curb stop”), curb boxes (or “valve boxes”), and lids on water service lines at the location shown on the Drawings and as directed by the Engineer. This item shall also include the disconnection of existing street side service and the connection of new shutoff valves to new and existing water services.

This item will not be used to replace existing valves or curb boxes damaged due to the Contractor’s negligence, as determined by the Engineer. Any existing items to remain damaged by the Contractor shall be replaced to the satisfaction of the Engineer at no additional cost to the Owner.

MATERIALS

All materials shall be as specified herein, shown on the plans, and as required and approved by the local Water Department; all work shall be subject to the approval of the Water Department. Curb box shall be heavy-duty, rated for H-20 loading and lids shall be marked “WATER”.

Submittals for all proposed materials shall be provided to the Engineer for review and approval prior to ordering or installing.

METHOD

Shutoff valves, valve boxes and lids shall be installed in the locations shown on the Drawings, as specified, and as directed by the Engineer. Valve locations shall be reviewed in the field with the Engineer prior to installation.

Generally, shutoff valves and curb boxes shall be laid on native soil, with the trench bottom being firmly compacted and shaped to accept the shutoff valve and curb box. Where the soil in a subgrade is unsuitable as a base for the proposed shutoff valve/curb box, this unsuitable material shall be excavated and replaced with suitable material as reviewed and directed by the Engineer. The excavation, removal, and replacement of unsuitable material shall be paid under a separate item. The curb box shall be set on a brick base and shall bear no weight on the shutoff valve or water service line. Wood blocks or stones shall not be acceptable. The curb box shall be set 1/8” below the surrounding pavement. The shutoff valve shall be connected to the existing or new water service line. Tapping of the water main for any new water service lines shall be paid under a separate item.

MEASUREMENT AND PAYMENT

The Contractor shall be paid for “EACH” shutoff valve with curb box and lid furnished and installed. This item shall include all labor, materials and equipment required to furnish and install new shutoff valves, valve boxes and lids, and to connect new shutoff valves to service lines.

TREE REMOVAL

WORK

Under this item the Contractor shall cut and remove within the contract limits, all trees as shown on the plans or as directed in the field by the Engineer. The Contractor shall request the permission and direction of the Engineer as to specific trees to be removed prior to beginning any construction work. The trees shall then be located in the field and flagged by the Contractor with the approval of the Engineer.

METHOD

The Contractor shall carefully protect against damage all existing trees, plants, and other features to remain. He shall be liable for any damage to such trees, plants and other property caused by tree removal operations and all damaged trees, plants and other property shall be replaced or restored to their original condition to the satisfaction of the Engineer and at Contractor's expense.

The Contractor shall cut and remove all trees designated for removal within the limits of the contract or as directed by the Engineer. The stumps and roots shall be removed completely and carted from the site. In areas of fill greater than six (6") inches, such trees shall be cut flush with the existing ground surface.

In areas of major construction, or where new plants are to be planted, the stumps and roots of all trees designated for removal shall be grubbed and excavated to a depth of three (3') feet below the proposed grade except in areas of fill greater than three (3') feet, where such trees may be cut flush with the ground surface.

Cutting of trees shall be done by competent workmen only and in workmanlike manner. All trees shall be "topped" and "limbed" previous to felling unless otherwise directed by the Engineer. All branches, limbs, trunks, roots and other debris shall be removed from the site or otherwise disposed of to the satisfaction of the Engineer.

Tree branches, limbs, and trunks may be chipped and used as erosion and sediment controls only if first approved by the Engineer. No weeds, invasive species, or other noxious materials shall be permitted in the wood chips.

No trees are to be removed except as ordered by the Engineer. All trees shall be calipered before removal at the height of two (2') feet from the surrounding ground.

MEASUREMENT AND PAYMENT

The quantity of tree removal to be paid for under this item shall be the number of "EACH" tree cut and removed as directed and approved by the Engineer. The measurement of payment for tree

removal shall be as follows: equal to or over twenty-four (24") inches in caliper; and for trees equal to or greater than twelve (12") inches and less than twenty-four (24") inches in caliper; and for trees greater than four (4") inches and less than twelve (12") inches as specified in the bid sheets.

Payment shall be at the unit price bid per tree for the size specified in the bid sheets and shall include the cost of all labor, materials, and equipment necessary for removing and disposing trees, and all other incidentals necessary to complete the work in accordance with the plans and specifications to the satisfaction of the Engineer. Only trees approved by the Engineer to be removed shall be paid for under this contract.

TRAFFIC SIGNS AND POSTS

WORK

Under this item the Contractor shall furnish all material, labor and equipment necessary to completely furnish and install aluminum panel reflective traffic signs and posts as shown on the plans and specified herein, and/or as directed by the Engineer.

SUBMITTALS

Submittals for all proposed materials shall be provided to the Engineer for review and approval prior to ordering or installing materials. Submittals shall include product information, shop drawings, material samples, color samples, certifications, and similar information. Any material installed without the prior approval of the Engineer shall be cause for rejection and shall be replaced by the Contractor to the satisfaction of the Engineer at no additional cost to the Owner.

MATERIALS

Sign posts and sign panels shall be constructed in conformance with the Americans with Disabilities Act (ADA) requirements, the Manual of Uniform Traffic Control Devices (MUTCD), latest edition, and the New York State Department of Transportation (NYSDOT) Standard Specifications, latest edition.

All materials delivered to the site shall be examined thoroughly for damage or defects. Any defects shall be noted and reported to the Engineer. Replacements, if necessary, shall be immediately re-ordered, so as to minimize any conflict with the construction schedule. Materials shall be stored above the ground under protective cover or indoors so as to provide sufficient protection. Any damage or defects occurring during handling or storage shall be the responsibility of the Contractor and shall be replaced by the Contractor at no additional cost to the Owner.

Aluminum Sign Panels and Sheeting

- A. Panel Material: Aluminum Alloy 6061-T6 and conforming to the requirements of NYSDOT Standard Specifications Section 715-04, Wrought Aluminum. The Engineer reserves the right to conduct tests upon aluminum panels supplied.
- B. Reflective Sheeting (Class B):
 - 1. Colored, flexible, weather resistant and shall have a flat outer surface. If sheeting contains spherical lens elements, the lens elements shall be embedded within a transparent plastic so as to produce a smooth, flat outer surface. All sheeting shall be of good appearance, free from ragged edges, cracks, scales, blisters or other defects.

2. The back of the reflective sheeting shall be protected by a removable liner and shall include a precoated pressure sensitive adhesive or a tack free heat activated adhesive, either of which may be applied without necessity of additional adhesive coats of the reflective sheeting or applications surface.
 3. Brightness shall conform to the minimum brightness values listed in NYSDOT Standard Specifications. The brightness of Class B reflective sheeting, when totally wet by rain, shall not be less than 80% of the dry measured brightness values.
 4. Color shall conform to the requirements established in NYSDOT Standard Specifications.
 5. Engineer reserves the right to conduct tests upon reflective sheeting supplied.
- C. Panel Surface Preparation for Reflective Sheeting: NYSDOT Standard Specifications Section 730-05 Method I or II in strict accordance with the recommendations of the manufacturer of the reflective sheeting.
- D. Adhesion of Reflective Sheeting: vacuum applicator process or mechanical process in strict accordance with the manufacturer's recommendations.

The adhesive bond produced shall be tough enough to resist scuffing and marring of the sheeting during handling; elastic enough at low temperatures to prevent the sheeting from being "shocked" off; strong enough to make the sheeting vandal resistant and to resist peeling of the reflective sheeting from the application surface; shall have no staining effect on the outside face of the reflective sheeting; and shall be mildew resistant.

Steel Sign Posts

- A. Steel posts for ground mounted signs shall meet the requirements of NYSDOT Standard Specifications Section 715-01, except that ASTM A 1 or rerolled axle steel may be used for small angle posts and ASTM A 36, A 242, A 441, A 572, Grade 50 and A 588 steel may be used for posts.
- B. All steel posts after fabrication (punching, drilling, etc.) shall be galvanized in accordance with applicable requirements of NYSDOT Standard Specifications Section 719-01, Galvanized Coatings and Repair Methods.

Aluminum Sign Posts

- A. Aluminum posts shall meet the requirements of NYSDOT Standard Specifications Section 715-04, and shall be fabricated of alloys 6061 T6.
- B. Welding shall be in conformance with applicable provisions and general recommendations of the latest edition of the American Welding Society's "Standard Specifications for Welded Highway and Railway Bridges". All aluminum welding shall be performed in the shop using

an inert gas metal arc welding process. Welders shall be qualified in accordance with the latest edition of the ASME Boiler and Pressure Vessel Codes, Section IX, Welding Qualification, Part B. Field welding shall not be allowed.

- C. The portions of the posts that will be in contact with the concrete shall be coated with Zinc Chromate Primer, NYSDOT Standard Specifications Section 708-04 and the primer shall be thoroughly dry before the concrete is placed.

Concrete Footings

Embedded footings for signs with metal posts shall be constructed of Class A Concrete without reinforcement. Unless otherwise specified on the drawings, footings shall be 12" in diameter and 36" deep, set on 6" of crushed gravel. Precast footings submittals shall be submitted to the Engineer for review.

METHOD

Prior to ordering materials, sign design, dimensions, materials, colors, and lettering and post material and dimensions shall be reviewed and approved by the Engineer. Contractor shall review the location of each sign and post in the field with the Engineer before installation.

There shall be no breaking and patching of new impervious surface materials for the installation of posts. Post footings shall be set prior to the placement of new surface materials. Contractor shall install posts plumb and attach signs in accordance with NYSDOT Standard Specifications, manufacturer's recommendations and Engineer's directions. Care shall be taken to maintain proper height of signs, especially signs which shall meet ADA requirements.

Contractor shall protect signs and posts from damage for the duration of construction until final acceptance. The Engineer shall inspect work for quality of material and installation. Any defects as determined by the Engineer shall be replaced or repaired by the Contractor as directed by the Engineer at no additional cost to the Owner. Crooked posts or signs shall be cause for rejection.

MEASUREMENT AND PAYMENT

The measurement and payment for this item shall be the number of "EACH" sign and post systems installed complete. This item shall include furnishing all materials, labor, and equipment necessary to completely provide and install aluminum panel reflective traffic signs and posts in accordance with the plans, specifications, and directions of the Engineer. This shall include submittals, excavation, concrete foundation, backfilling, posts, sign panels, fasteners, handling, storage, protection, and any other related work and materials.

No payment shall be made for work that has not been accepted by the Engineer or that has become defective due to the Contractor's negligence, ignorance, error, material failure, or improper storage or handling of materials.

FURNISH AND PLACE TOPSOIL AND SEED

WORK

Under this item, the Contractor shall furnish all labor, material, and equipment place topsoil and grass seed in all areas as indicated on the plans or as directed by the Engineer. The work shall include but not be limited to: preparing the areas for topsoil and seed, placement of a minimum of four (4") inches of topsoil, removal of objectional material from harrowed ground, placing seed and fertilizer, and maintenance of seeded areas.

MATERIAL

Topsoil shall be the surface layer of soil and shall be free from refuse, any material toxic to plant growth, subsoil, woody vegetation, stumps, roots, brush, stones, clay lumps, or similar objects larger than two (2") inches in greatest dimension. Sod and herbaceous growth, such as grass, need not be removed but shall be thoroughly broken up and mixed with the soil during handling operations. Invasive species and noxious weeds shall be removed and disposed. Topsoil shall not be delivered or used in a frozen or muddy condition.

Topsoil shall meet the following requirements:

1. The pH of the material shall be 7.0.
2. The organic content shall be between six (6%) and twenty (20%) percent.
3. Gradation:

<u>Sieve Size</u>	<u>Percent Passing by Weight</u>
2 inch	100
1 inch	85-100
1/4 inch	65-90
No. 200 mesh	20-80

Topsoil in which more than sixty percent (60%) of the material passing the USS No. 200 mesh sieve consists of clay as determined by hydrometer, or by the decantation method shall not be used. All percentages are to be based on dry weight samples.

The Contractor may amend natural topsoil with approved materials and by approved methods to meet the above specifications. Topsoil containing foreign material may be rejected on the basis of a visual examination prior to testing.

Acceptance of topsoil will be based on the test results unless otherwise specified. Tested topsoil must be approved in writing by the Engineer before any material is used.

Grass seed shall be high-quality commercial grade grass seed. Prior to purchasing materials and placement, the Contractor shall submit his proposed seed to the Engineer for review.

Lawn Area Seed:

- 30-50% Fine Fescue (*Festuca rubra*), 2 varieties min., including “creeping red”
- 15-40% Kentucky Bluegrass (*Poa pratensis*), 3 varieties min.
- 15-40% Perennial Ryegrass (*Lolium perenne*), 2 varieties min., “turf” type
- 5-15% Annual Ryegrass (*Lolium multiflorum*)

Roadside (Right-of-Way) Area Seed:

- 50-70% Fine Fescue (*Festuca rubra*), 2 varieties min., including “creeping red”
- 15-40% Perennial Ryegrass (*Lolium perenne*), 2 varieties min., “turf” type
- 5-15% Annual Ryegrass (*Lolium multiflorum*)
- 5-10% White Clover (*Trifolium repens*), other varieties may be acceptable

Acceptable material in a seed mixture other than pure live seed consists of nonviable seed, chaff, hulls, live seed of crop plants and inert matter. The percentage of weed seed shall not exceed 0.1 percent by weight. All seed will be rejected if the label or test analysis indicates any of the following contaminants: Timothy, Orchard Grass, Sheep Fescue, Meadow Fescue, Canada Blue Grass, Alta Fescue, Kentucky 31 Fescue, and Bent Grass.

METHOD

Grass areas shall be permanently established during the periods of April 7 to May 15 or August 25 to October 1 or as directed by the Engineer.

The Contractor shall harrow the ground and remove all weeds and other undesirable growth. He shall furnish and place a minimum of four (4”) inches of topsoil which shall be raked and graded to match existing ground as specified on the Plans. The Engineer shall approve the grading of all areas prior to fertilizing and seeding.

The Contractor shall furnish and place an approved fertilizer containing 10 parts of nitrogen, 6 parts of phosphate and 4 parts of potash (10-6-4) at a rate of 15 pounds of fertilizer per 1,000 square feet of area or per manufacturer’s recommended rate.

The Contractor shall then furnish and place the approved grass seed evenly over the entire area at a rate of at least 10 pounds per 1,000 square feet. Grass seed shall be sown in such manner that a uniform stand will result. The Contractor will be required to present all empty seed bags to the Engineer to verify that the required amount of seed has been placed.

Mulch shall be applied within one day after seeding, cover the seeded areas with a uniform blanket of straw mulch at the rate of 100 pounds per 1,000 square feet of seeded area. Mulch shall be stalks of oats, wheat, rye or other approved crops which are free of weeds and weed seed. Weight

shall be based on a 15 percent moisture content.

The Contractor shall water the newly planted grass until the grass reaches a stand of four (4") inches and shall cut the new grass to a height of two (2") inches a minimum of three times or as directed by the Engineer.

The Contractor shall be responsible for all grass areas until final acceptance by the Owner. He shall regrade, reseed, refertilize, etc., any grass that has failed to maintain a dense stand. The finished area shall be free of weeds.

In lieu of the above method of placing topsoil and seeding, the Contractor may substitute sodding, at his own option and at no extra cost to the Owner. Sod shall constitute a mixture of grasses equivalent to the seed mixture specified herein. Sod shall be viable and of uniform density, color, height, and texture that is strongly rooted and capable of vigorous growth and development when planted. Sod shall be free of deleterious material, noxious weeds, and anything that may inhibit the establishment of the sod.

The Contractor shall also have the option of hydroseeding the lawn areas at no increased cost to the Owner and subject to the approval of the Engineer. If the Contractor selects this option, he shall submit to the Engineer for approval a complete specification of the hydroseeding operation he intends to follow. Hydroseeding with a cellulose fiber mulch is acceptable.

MEASUREMENT AND PAYMENT

The quantity of topsoil and seed to be paid for under this item shall be the number of "SQUARE FEET" installed, in accordance with the plans and specifications and directions of the Engineer.

The price bid shall be a unit price per "SQUARE FOOT" of topsoil and seed in place, and shall include the cost of furnishing all labor, materials (including peat moss and organic fertilizer) and, equipment necessary to prepare areas for topsoil and seed, removal of objectionable material, raking, fertilizing, installation of topsoil and seed, straw mulch, and maintenance all in accordance with the plans and specifications and to the satisfaction of the Engineer.

UNCLASSIFIED EXCAVATION, FILLING, AND GRADING

WORK

Under this item the Contractor shall supply all labor, material and equipment necessary to export material if required, site grading, cutting, filling, earthwork, required to bring the site to the proposed lines and grades. The Contractor shall also perform any excavating work, which is not included under other bid items of work as required for the proper completion of all site work. Large boulders or stones shall be included under this item.

The Contractor shall perform the required cuts and fills, place and compact the cut material in fill areas, rough grade the site and legally dispose of unsuitable excavated materials offsite, all in accordance with the plans, specifications and directions of the Engineer.

This bid item shall include the excavation and filling work required to bring the site to the proper lines and grades for the complete construction of the proposed improvements. Stumps, large rocks and unsuitable material not removed under Clearing and Grubbing, shall be removed and properly and legally disposed of as part of the site grading work. If applicable, paved areas of the site shall be thoroughly compacted to 95% maximum density by the use of a 10-ton vibratory roller (75% density in lawn and planting areas).

Only if it is determined by the Engineer that the onsite cut material to be used as fill is unsuitable shall the Contractor be allowed to export the unsuitable material and import acceptable fill material.

DESCRIPTION

Excavation shall be taken to mean the removal of earth, unsuitable subbase materials, miscellaneous surface materials, boulders, and other materials of any nature that may be encountered.

CLEAN FILL

If necessary to bring the site to the required grades, clean fill from sources outside the site is to be brought in to augment existing materials. The fill shall be clean, soil materials of uniform quality, free from boulders, hard clods, stiff clay, hard pan, sod, slags, toxins, ashes, construction debris, cement, brick, concrete, petroleum products, glass and other deleterious substances.

Textural analysis of the soil shall be as follows:

<u>Sieve Size</u>	<u>Percent Passing by Weight</u>
2 inch	100
1 inch	50 to 100

<u>Sieve Size</u>	<u>Percent Passing by Weight</u>
No. 40 mesh	15 to 50
No. 200 mesh	0 to 15

The pH of the soil shall be between 5.5 and 7.4 inclusive.

The maximum density of borrow fill shall be as determined in the laboratory when tested in accordance with the most recent ASTM D1557 standard.

Prior to importing fill, the Contractor shall supply all testing reports and data including source location for fill material. Contractor shall certify that fill material delivered to the site is from said source location and all fill shall be free of chemicals and other containments and be approved for use by the Engineer prior to importing fill. Contractor shall supply onsite samples of material delivered to the site for testing.

BOULDERS

The Contractor shall remove all boulders, stone or pieces of concrete, or other objectionable material located at the surface and in excavations required to grade the area. Any stones larger than two (2 CF) cubic feet shall not be allowed within 12" of the rough grade.

EXCAVATION NEAR EXISTING STRUCTURES

Attention is directed to the fact that there are pipes, drains, and other utilities in certain locations. Some of these have been indicated on the drawings, and the completeness or accuracy of the information is not guaranteed.

As the excavation approaches pipes, conduits, or other underground structures, digging by machinery shall be discontinued and the excavation shall be performed by means of hand tools. Such manual excavation when incidental to normal excavation shall be included in the work to be done under items involving normal excavation.

Where determination of the exact location of pipe or other underground structure is necessary for doing the work properly, the Contractor may be required to excavate test pits to determine such locations. When such test pits may be properly considered as incidental to other excavation, the Contractor shall receive no additional compensation, the work being understood to be included as part of the excavation. When the Engineer orders test pits beyond the limits of excavation he considers a part of the work, such test pits shall be paid for as an extra pursuant to the General Conditions.

PROTECTION OF EXISTING STRUCTURES

All existing pipes, poles, wires, fences, curbing, property line markers, and other structures, which

the Engineer decides must be preserved in place without being temporarily or permanently relocated, shall be carefully supported and protected from damage by the Contractor. Should such items be damaged, they shall be restored by the Contractor, without compensation therefore, to at least as good condition as that in which they were found immediately before the work has begun. When fences interfere with the Contractor's operations, he shall remove and (unless otherwise specified) later restore them to at least as good condition as that in which they were found immediately before the work was begun, all without additional compensation. The restoration of fences shall be done as promptly as possible and not left until the end of the construction period.

CARE AND RESTORATION OF PROPERTY

On paved surfaces the Contractor shall not use or operate tractors, bulldozers, or other power-operated equipment the treads or wheels or which are so shaped as to cut or otherwise injure such surfaces.

All surfaces, which have been injured by the Contractor's operations, shall be restored to a condition at least equal to that in which they were found immediately before work was begun. Suitable materials and methods shall be used for such restoration.

The restoration of existing property or structures shall be done as promptly as practicable and shall not be left until the end of the construction period.

UNAUTHORIZED EXCAVATION

If the bottom of any excavation is taken out beyond the limits indicated or prescribed, the resulting void shall be backfilled at the Contractor's expense with thoroughly compacted, screened gravel.

DISPOSAL OF SURPLUS EXCAVATED MATERIALS

Unwanted surplus excavated materials shall be removed from the site of the work and disposed of in a legal manner, after approval by the Engineer.

Surplus excavated materials suitable for back fill shall be used to backfill normal excavations in rock or to replace other materials unacceptable for use as backfill and shall be neatly deposited and graded so as to make or widen fills, flatten side slopes, or fill depressions without additional compensation.

DUST CONTROL

During the progress of the work, the Contractor shall conduct his operations and maintain the area of his activities, including sweeping and sprinkling of streets as necessary, so as to minimize the creation and dispersion of dust. If the Engineer decides that it is necessary to use calcium chloride

for more effective dust control, the Contractor shall furnish and spread the material, as directed at no additional cost to the Owner.

BRIDGING EXCAVATIONS

The Contractor shall, at his own expense, provide suitable and safe bridges and other crossings where required for the accommodation of travel, and to provide access to private property during construction, and shall remove said structures thereafter.

PLACING AND COMPACTING FILL MATERIAL

Establish all line and grades. Verifying the location and elevation of solid rock subgrade will be the responsibility of the Contractor. Any areas which rock is encountered shall require eighteen inches (18") of a combination of fill, topsoil and seed to meet proposed finished grade.

Fill shall be constructed in successive horizontal layers not over eight (8") inches in depth, extending across the entire fill.

Fill shall be spread by acceptable methods, and shall be thoroughly compacted by a vibratory roller, to the satisfaction of the Engineer. At least six (6) perpendicular passes will be required. In places where the character of the material makes the use of the roller impracticable or where drains or other construction may be damaged, a lighter one may be substituted, or the area shall be compacted by the tamping, all with the approval, and to the satisfaction of the Engineer.

The compaction effort should achieve a density of fill soil that is at least ninety-five (95%) percent of the maximum density beneath paved areas, and at least seventy-five (75%) percent in lawn areas.

All hollows and depressions which develop during the process of rolling and compacting shall be filled with acceptable material, and the subgrade shall again be compacted. This process of filling and compacting shall be repeated until no depressions develop.

For large expanse areas, such as fields and parking lots, laser grading equipment shall be used to ensure designed slopes are obtained.

MEASUREMENT AND PAYMENT

The Contractor shall provide a "LUMP SUM" bid amount for the unclassified excavation, filling, and grading work, including all removal and disposal of objectionable material from the cuts, providing fill material as required, and compacting of cut and fill areas as shown on the plans, specified herein and as directed by the Engineer.

The lump sum price bid for unclassified excavation, filling and grading work shall include the cost of furnishing all labor, materials and equipment necessary or required including but not limited to hauling and dump fees for debris and excess material, surveying costs, testing of material all in accordance with the plans and specifications and to the satisfaction of the Engineer.

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FURNISH AND INSTALL WATER SERVICE LINE

WORK

Under this item the Contractor shall furnish all labor, materials, and equipment necessary to saw cut pavements, remove and dispose of pavement materials, excavate trenches, provide water main taps, install corporation stops, install water service lines, make all required connections to shutoff valves and properly tamp and backfill the trenches all in accordance with the plans and specifications as directed by the Engineer.

If directed by the Engineer, the trenches located within paved roadways shall be backfilled with dense fill which will be paid for under its own bid item. The surplus excavated material shall be removed and disposed of off-site by the Contractor at his own expense.

MATERIALS

The materials shall include but not be limited to inch (1") and three-quarter (3/4") inch diameter copper tubings Revere Type "K" for water service, corporation stops and valves with compression fittings manufactured by the Mueller Company of Decatur, Il. or approved equal as specified herein and/or as directed by the Engineer.

METHOD

After the water tap has been properly made to the main, the Contractor shall excavate a trench and connect the copper service line to the corporation cock with compression fittings. The line shall be laid with no kinks, to the shutoff valve and curb box as shown on the plans. At the end of the line the Contractor shall install a shutoff valve as specified under "SHUTOFF VALVES, CURB BOXES AND LIDS" and provide the required connections as shown on the plans or as directed by the Engineer. The valves and curb boxes shall be plumb and lids shall be flush with the finished grade. The exposed end of the valves or water line shall be plugged so as to remain clean during construction. The trench shall be backfilled and tamped. No stones larger than one (1") inch in diameter shall be permitted in the trench within one (1') foot of the service line.

PRESSURE AND LEAKAGE TESTS

Except as otherwise directed, all pipelines shall be given combined pressure and leakage tests in sections of suitable length.

The Contractor shall furnish and install suitable temporary testing plugs or caps; all necessary pressure pumps, pipe connections, meters, gauges, and other necessary equipment; and all labor required.

The section of pipe to be tested shall be filled with water of acceptable quality, and all air shall be expelled from the pipe.

If blowoffs are not available at high points for releasing air, the Contractor shall make the necessary excavations and do the necessary backfilling and make the necessary taps at such points and shall plug said holes after completion of the test.

The section under test shall be maintained full of water for a period of twenty-four hours prior to the combined pressure and leakage test being applied.

The pressure and leakage test shall consist of first raising the water pressure (based on the elevation of the lowest point of the section under test and corrected to the gauge location) to a pressure in pounds per square inch numerically equal to the pressure rating of the pipe but not to exceed 150 psi. Care shall be taken not to apply this pressure to valves and other items of equipment known to be incapable of withstanding such pressure.

While maintaining this pressure, the Contractor shall make a leakage test by metering the flow of water into the pipe. If the average leakage during a two-hour period exceeds a rate of ten gallons per inch of diameter per twenty-four hours per mile of pipeline, the section shall be considered as having failed the test. All joints within chambers and all flanged joints shall have no visible leakage.

If the Contractor cannot achieve the specified pressure and maintain it for a period of one hour with no additional pumping, the section shall be considered as having failed to pass the test.

If the section fails to pass the pressure and leakage test, the Contractor shall do everything necessary to locate, uncover, and repair or replace the defective pipe, fitting, or joint, all at his own expense and without extension of time for completion of the work. Additional tests and repairs shall be made until the section passes the specified test.

If, in the judgement of the Engineer, it is impractical to follow the foregoing procedure exactly for any reason, modifications in the procedure shall be made as required and permitted, but in any event the Contractor shall be responsible for the ultimate tightness of the line within the above leakage and pressure requirements.

MEASUREMENT

The quantity of pipe to be paid for under this item shall be the actual number of linear feet of water service line, of the size laid by the Contractor, as measured along the center line of the pipe from center to center of valves without regard to the lengths of the individual pieces of pipe or cuts, or joints required.

PAYMENT

The payment for this item shall be at the unit price bid per "LINEAR FOOT" of pipe installed complete and shall include all labor, materials and equipment and any incidental expenses, including saw cutting, asphalt and concrete, pavement removal and disposal, excavation and backfill, maintaining and sheeting the trench if required, performing water main taps and connections at the corporation cock, laying the line, connecting water line to shutoff valves and

pressure testing the line all in accordance with the plans, specifications and direction of the Engineer.

If directed by the Engineer, the trenches located within paved roadways shall be backfilled with dense fill which will be paid for under its own bid item. The surplus excavated material shall be removed and disposed of off-site by the Contractor at his own expense.

If required, the shutoff valves curb boxes and lids shall be provided, installed and paid for under a separate bid item.

YARD HYDRANT

WORK

Under this item the Contractor shall supply all labor, materials and equipment required to furnish and install yard hydrants at the location shown on the Drawings and as directed by the Engineer.

MATERIALS

All materials shall be as specified herein, shown on the plans, and as required and approved by the local Water Department. All work shall be subject to the approval of the Water Department. The hard hydrant shall be frost-proof, certified lead-free, and pad-lockable. It shall have ¾" male hose thread outlet, cast iron head and handle with polyester powder coated finish, galvanized pipe, silicon brass self-draining valve, flow lock wheel, and stainless-steel extension rod. The valve shall be rated for a pressure of 120 psi.

Submittals for all proposed materials shall be provided to the Engineer for review and approval prior to ordering or installing.

METHOD

Yard hydrants shall be installed in the locations shown on the Drawings, as specified, and as directed by the Engineer. Yard hydrant locations shall be reviewed in the field with the Engineer prior to installation.

The yard hydrant's valve and elbow shall be set in a gravel encasement laid on native soil, with the trench bottom being firmly compacted and shaped to accept the gravel encasement. The valve and gravel encasement shall be located below the frost line. The yard hydrant shall be connected to the existing or new water service line.

MEASUREMENT AND PAYMENT

The Contractor shall be paid for "EACH" yard hydrant furnished and installed. This item shall include all labor, materials and equipment required to furnish and install new yard hydrants, and to connect them to service lines.