



GENERAL BID SPECIFICATIONS

BID #2024-36 BURLINGTON STREET RECONSTRUCTION PROJECT DECEMBER 10, 2024

Contact Information: Tina Bartlett-Bearup, Purchasing Manager
City of Watertown
245 Washington Street, Suite 206
Watertown, NY 13601
Phone: (315) 785-7749
Email: tbartlettbearup@watertown-ny.gov

The following outlines the planned schedule of major activities related to this Bid solicitation. The City of Watertown reserves the right to amend the schedule as necessary.

Important Dates:

Bid Advertisement:	December 10, 2024
Pre-Bid Site Visit:	TBD – if needed
Bid Submission Deadline:	Wednesday, January 22, 2025, 11:00 a.m.
Bid Proposal Selection:	Anticipated: Monday, February 3, 2025

BIDDING AND CONTRACT DOCUMENTS



BURLINGTON STREET RECONSTRUCTION PROJECT CITY OF WATERTOWN JEFFERSON COUNTY, NEW YORK

**Owner: City of Watertown
245 Washington Street
Watertown, NY 13601
December 13, 2024**



**Matthew R. Morgia, P.E.
Civil Engineer**

A&C Project No: 2023-052

The above Engineer states that to the best of his knowledge, information and belief, the plans and specifications are in accordance with applicable requirements of New York State. It is a violation of New York State Law for any person, unless acting under the direction of a licensed professional engineer to alter this document in any way. If altered, such licensee shall affix his or her seal and the notation "altered by" followed by his or her signature, date, and a specific description of alteration.

Aubertine and Currier Architects, Engineers & Land Surveyors, PLLC
522 Bradley Street Watertown, New York 13601 TELE: (315) 782-2005 FAX: (315) 782-1472

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TECHNICAL SPECIFICATIONS:

DIVISION 03 – CONCRETE

03 3000 CAST-IN-PLACE CONCRETE

DIVISION 05 – METAL FABRICATIONS

05 5213 PIPE AND TUBE RAILINGS

DIVISION 31 – EARTHWORK

31 1000 SITE CLEARING
31 2200 GRADING
31 2316 EXCAVATION
31 2316.26 ROCK REMOVAL
31 2323 FILL
31 2319 DEWATERING AND DRAINAGE
31 5000 EXCAVATION SUPPORT AND PROTECTION

DIVISION 32 – EXTERIOR IMPROVEMENTS

32 1123	AGGREGATE BASE COURSE
32 1216	ASPHALT PAVING
32 1313	CONCRETE PAVING
32 1723	PAVEMENT MARKINGS
32 1726	TACTILE WARNING SURFACING
32 3113	CHAIN LINK FENCE
32 9219	SEEDING
32 9300	PLANTS

DIVISION 33 – UTILITIES

33 0561	CONCRETE MANHOLES
33 1416	SITE WATER UTILITY DISTRIBUTION
33 3113	SITE SANITARY SEWERAGE GRAVITY PIPING
33 4100	SUBDRAINAGE
33 4211	STORMWATER GRAVITY PIPING
33 4230	STORMWATER DRAINS

NOTICE TO CONTRACTORS

SEALED BIDS FOR THE **Burlington Street Reconstruction Project** in Watertown, New York, will be received at Watertown City Hall, 245 Washington Street, Office of the Purchasing Manager, Room 206, Watertown, New York, 13601, until 11:00 AM on Wednesday, January 22, 2025, at which time and place they will be publicly opened and read aloud.

The project site is located on Burlington Street and consists of the complete street reconstruction noted within the Project Description and illustrated in the drawings portion of these Bid Documents. The successful contractor will be required to provide all labor, materials, machinery, tools, equipment and other means of construction necessary and incidental to the completion of the work shown on the plans and described in the specifications. You may contact Geoff Urda at City Planning to coordinate a site visit at 315-785-7725 or gurda@watertown-ny.gov

Plans and Specifications may be obtained at the Purchasing Department of the City of Watertown, Room 206, City Hall, 245 Washington Street, Watertown, NY 13601, by calling (315) 785-7749 or by email at tbartlettbearup@watertown-ny.gov.

Plans and Specifications are also available for review at:

Dodge Reports

Available for subscribers online at <http://construction.com/dodge/>

Northern New York Builders Exchange 22074 Fabco Road Watertown, New York 13601	Syracuse Builders Exchange 6563 Ridings Road Syracuse, New York 13206
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The successful company must review the INSURANCE AND BONDING INFORMATION sheet, and provide all insurances and bonds, that will cover any type of work being done on this project. All insurance forms, like that for liability (ACORD 25) or Workmen's Comp (U-26.3 or C-105.2), must have a principal office in New York State or be authorized to do business in New York State.

For use in all documents the City of Watertown, New York, is (the "Owner") and THE CHOSEN QUALIFIED COMPANY, is (the "Contractor").

The City Council reserves the right to waive any informality in or to reject any or all bids. Each bidder must deposit with his bid, security in the amount of not less than five per centum (5%) of the bid in the form and subject to the conditions provided for in the Information for Bidders.

The successful bidder will be required to furnish a performance and payment bonds in the amount of not less than 100% of the total amount of the accepted bid and in such form and having as surety thereon such surety company or companies as are approved by the City Council. Insurance carrier must have principal office in New York State or be authorized to do business in New York State.

Attention of bidders is particularly called to the requirements as to conditions of employment to be observed and minimum wage rates to be paid under this contract.

**CITY OF WATERTOWN, NEW YORK
TINA BARTLETT-BEARUP
PURCHASING MANAGER**

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PROJECT DESCRIPTION

The successful bidder will be required to supply all labor, materials and equipment to perform the Burlington Street Reconstruction Project as outlined within the contract drawings, specifications, and bidding documents and as directed by the City Engineer including, but not limited to the following:

1. Excavation of infrastructure trenches within and along the City street, necessary to facilitate full street reconstruction.
2. Installation of watermains, services, hydrants, tapping and connections to adjacent mains, testing and disinfection of watermain and services, and reconnection of services.
3. Installation of sanitary sewer manholes, mains, connections to adjacent mains, laterals, and reconnection to house laterals.
4. Installation of storm sewer structures, mains, and connections to adjacent mains.
5. Cutting, capping and abandonment of existing piping.
6. Full reconstruction of asphalt streets, driveways, concrete curbs, sidewalks, and miscellaneous infrastructure.
7. Provide traffic control and daily maintenance of project area and crossing streets.
8. Coordinate with City and the local utility companies regarding water, sanitary sewer, storm sewer, gas, electric, and communication utilities within the project area.
9. Replace topsoil, plant trees and restore lawn areas.
10. This construction project is funded in part with entitled money from the U.S. Department of Housing and Urban Development (HUD), Community Development Block Grant (CDGB) Program, American Rescue Plan, Consolidated Local Street and Highway Improvement Program (CHIPS) and local funding. The contractor shall pay their employees the higher wage rates from either the NYSDOL Prevailing Wage Rates or the Federal Davis Bacon Applicable Wage Rates. The NYSDOL Prevailing Wage Rates and the Federal Davis Bacon Applicable Wage Rates are attached. The NYSDOL Prevailing Wage Rates can be viewed on the NYSDOL website. The NYSDOL PRC# is 2023014501.

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INFORMATION TO BIDDERS

RECEIPT OF BIDS

The owner may consider informal any bid not prepared and submitted in accordance with the provisions hereof and may waive any informalities or reject any and all bids. Any bid may be withdrawn prior to the time for the opening of bids or authorized postponement thereof. Any bid received after the time and date specified will not be considered. No bidder may withdraw a bid within 45 days after the actual date of the bid opening.

PREPARATION OF BIDS

Each bid must be submitted on the prescribed form.

The following restrictions refer to the bid proposal section of these documents:

1. Attach to the page provided a certified check or bid bond as bid bond security.
2. Fill out completely each item of the Bid Proposal and Unit Price Bidding Form by inserting the prices both in figures and in words.
 - Unit Prices – Unit Price Bids will be compared based on the prices of the bid items, the schedule of quantities comprising the project, and the total of the bid items. No bid will be accepted which does not contain a price for each item.
3. The Non-Collusive Bidding Certification shall be included in the bid proposal. Include signature, title, date, address, and placement of corporate seal, if a corporation.
4. The Sexual Harassment Prevention Form, Iran Divestment Act Form, and HUD Section 3 Compliance-Contract Clause Form shall be included in the bid proposal.
5. Provide Contractor's Qualifications Form with bid.

SUBMISSION OF BID

Each bid must be submitted in a sealed envelope bearing on the outside the name of the bidder, his or her address and the name of the project for which the bid is being submitted. The name of the project shall conform to that as shown in the "Bid Proposal Form" If forwarded by mail, the sealed envelope containing the bid must be enclosed in another envelope addressed to the Office of the City Purchasing Agent, Room 206, Watertown Municipal Building, 245 Washington Street, Watertown, New York 13601.

QUALIFICATIONS OF BIDDER

Before the award of the contract, any bidder will be required to document that they have the necessary facilities, experience, ability and financial resources to perform the work in a satisfactory manner and within the time stipulated.

The Owner may make such investigations as he deems necessary to determine the ability of the bidder to perform the work, and the bidder shall furnish to the Owner all such information and data for this purpose as the Owner may request.

Burlington Street Reconstruction Project
City of Watertown

The Owner reserves the right to select the bid or proposal, the acceptance of which will in its judgment best secure the efficient performance of the work, or to reject any or all bids received.

CONDITIONAL BIDS WILL NOT BE ACCEPTED.

BID SECURITY

Each bid must be accompanied by cash, certified check of the bidder, or bid bonds in the amount of not less than five percent (5%) of the amount of the base bid, made payable to the City of Watertown. **BID BONDS ARE TO STATE: 5% OF THE AMOUNT OF THE BASE BID AND THE ACTUAL 5% DOLLAR FIGURE.**

Such bid security will be returned to all except the three lowest formal bidders within ten days after the opening of bids and the remaining deposits will be returned within 48 hours after the owner and the accepted bidder have executed the contract or, if no contract has been executed within 45 days after the date of opening of bids, upon demand of the bidder so long as it has not been notified of the acceptance of his or her bid. If a bidder agrees to hold their bid open for a period greater than 45 days, at the request of the City, the bid security shall be held over as well.

FORFEITURE OF BID SECURITY

The successful bidder, upon his or her failure or refusal to execute and deliver the contract and performance bond required within ten (10) days after bidder has been notified of the award of the contract, shall forfeit the security deposited with his or her bid to the City through its duly constituted City Council as liquidated damages for such failure or refusal.

AGENDA AND INTERPRETATIONS

If any person contemplating submitting a bid for the proposed contract is in doubt as to the true meaning of any part of the plans, specifications, or other proposed contract documents, he/she may submit to the City through the City Purchasing Department a written request for information with City Standard RFI Form. The person submitting the request will be responsible for its prompt delivery. Any interpretation of the proposed documents will be made only by addenda duly issued and a copy of such addendum will be sent by email, preferably, or first class mail. The last day for such interpretations to be made and addenda duly issued, shall be at 12:00 P.M. ET on the fifth full business day prior to the bid opening date. (e.g. if the Bid Opening is on a Wednesday, the last day for interpretation to be made is at 12:00 P.M. on the prior Wednesday). The City Council of the City of Watertown will not be responsible for any other explanation or interpretation of the proposed documents.

CONDITIONS OF WORK

Each bidder must inform themselves fully of the conditions relating to construction and labor under which the work is now or will be performed. Failure to do so will not relieve the successful bidder of his or her obligation to furnish all material and labor necessary to carry out the provisions of this contract. It is the Bidders responsibility to be aware of the existing conditions of the Project.

Insofar as possible, the Contractor, in carrying out the work, must employ such methods or means as will not cause any interruption of or interference with the work of any other contractor.

OBLIGATION OF BIDDER

At the time of the opening of bids, each bidder will be presumed to have inspected the site and

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City of Watertown

have read and be thoroughly familiar with the plans and Contract Documents (including all addenda). The failure or omission of any bidder to receive or examine any form, instrument, or document shall in no way relieve any bidder from any obligation in respect to his or her bid.

SECURITY FOR FAITHFUL PERFORMANCE

Simultaneously with contractor's delivery of the executed contract, the successful bidder shall deliver to the City Council of Watertown, New York, an executed performance bond in form acceptable on bonds given to the United States Government and approved by the City Attorney. Such surety companies must have their principal office in New York State, or be authorized to do business in New York State.

The surety bond shall be executed on the bond form sheets which are bound into the specifications and contract documents.

POWER OF ATTORNEY

Attorneys-in-fact who sign bid bonds or contract bonds must file with each bond a certified and effectively dated copy of their Power of Attorney.

SCHEDULE OF QUANTITIES

The preliminary estimate of quantities included herein shall be accepted as approximate only and is given for the comparison of bids. There is no guarantee that the actual quantities placed in the work will correspond to the estimated quantities given herein. The Owner reserves the right to eliminate or increase or decrease any item or items of work.

SUBSURFACE STRUCTURES

The location, size and depth of existing water mains, gas mains, sewer lines, telephone cables, power cables and other subsurface structures as may be shown on the construction drawings are not to be taken as exact locations unless specifically noted as such on the plan. These locations are shown for reference only for comparative bidding purposes and the Contractor shall place his or her own interpretation upon the same. There is no expressed or implied agreement that the location, size, or depth has been correctly indicated or that variance might not be encountered. The Contractor shall make detailed examination at the time of construction according to instructions hereinafter specified.

DAMAGES

The said Contractor is hereby expressly bound to indemnify and save harmless the City of Watertown from all damages, costs, judgments, loss and from all suits or actions, or the defense thereof, of every name and description brought against said City of Watertown or any individual official thereof for, or on account of, any injuries or damages received or sustained, or alleged to have been received or sustained, by any party or parties by or from the said Contractor or his or her servants or agents in the construction of said work, or by or in consequence of any negligence or alleged negligence in guarding the same, or any improper materials used in its construction or by or on account of any such act or omission of the said Contractor or his or her agents for any infringement of patents by the use of patented articles in the construction and completion of the work agreed upon to be performed under this contract, or of any materials used upon said work, and the Contractor is hereby expressly bound to appear and defend all such suits and actions and to save the City of Watertown harmless from any loss on account of such suits or actions or the defense thereof.

COMPLIANCE TO LAW REQUIREMENTS

In accordance with the provisions of Section 103-A of the General Municipal Law, it is understood and agreed that upon refusal of a person called upon before a Grand Jury to testify concerning any transactions or contracts had with the State, or an political subdivision thereof, a public authority or any public department, agency or officer of the State or of any political subdivision thereof or of a public authority, to sign a waiver of immunity against any subsequent criminal, prosecution or to answer any relative question concerning such transaction or contract:

- (a) Such person, and any firm, partnership or corporation of which he is a member, partner, director or officer shall be disqualified from thereafter selling to or submitting bids or receiving awards from or entering into any contract with any municipal corporation or fire district, or any public department, agency or official thereof, for goods, work or services for a period of five (5) years after such refusal, and to provide that:
- (b) Any and all contracts made with any municipal corporation or any public department, agency or official thereof on or after the first day of July, 1959 or with any fire district or any agency or official thereof, on or after the first day of September, 1960, by such person, any by any firm, partnership, or corporation of which he is a member, partner, director or officer may be cancelled or terminated by the municipal corporation or fire district without incurring any penalty or damage on account of such cancellation or termination but any monies owing by the municipal corporation of fire district for goods, delivered or work done prior to the cancellation or termination shall be paid.

CITY OF WATERTOWN, NEW YORK

Burlington Street Reconstruction Project

REQUEST FOR INFORMATION

**Send RFI to Tina Bartlett-Bearup, Purchasing Manager, by email, fax, or mail.

Phone: (315) 785-7749

Fax: (315) 782-9014

Email: tbartlettbearup@watertown-ny.gov

Contact Name:		RFI#	
Contractor:		Date:	
Address:		Phone:	
		Fax:	
		Email:	
Specification No.:		Page No:	
Plan Sheet No.:		Detail:	
REQUEST:			
Proposed Solution (if applicable):			
By:		Signature:	
RESPONSE:			
By:		Signature:	
After reviewing the response, does the contractor anticipate: That a change order will be required? <input type="checkbox"/> Yes <input type="checkbox"/> No That there will be an increase in the cost of the project: <input type="checkbox"/> Yes <input type="checkbox"/> No			

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SPECIAL INFORMATION TO BIDDERS

All contractors contemplating bidding on this contract shall take special note that:

1. In the General Conditions, Special Provisions and NYS wage rate requirements all references to federal labor laws and regulations and New York State labor laws and regulations shall remain valid and shall be followed.
2. Work under this contract shall be commenced and carried out at such points and in such order of precedence and at such times as the Engineer may approve.
3. Traffic control procedures for this project must conform to manual of Uniform Traffic Control Devices (M.U.T.C.D.) AND New York State D.O.T. regulations.
4. The Contractor shall, prior to any excavation or removal operations, establish the presence or absence of property pins or markers along the street margin. Any such markers that are removed or disturbed during construction will be replaced by a Licensed Professional Land Surveyor at no cost to the City or the property owner involved.
5. Field inspections by prospective bidders are encouraged.
6. City of Watertown, Water Department will provide a hydrant water meter to awarded contractor to fill water truck as needed and will be billed at the bulk water price. Contractor to call Water Department at the end of work day to retrieve meter. Costs are \$7.19 per 1000 gallons for first 1000 gallons, every 100 gallons thereafter is \$0.72. There is a processing fee of \$2.50 for each bill sent to the bulk water user.
7. Selection criteria will be the lowest dollar amount bid for the contract proposal submitted by the qualified contractor and approved by the City Council of the City of Watertown, N.Y.
8. The successful bidder will be required to coordinate construction with the City of Watertown Engineering Department.
9. The project does not require any specific (MWBE) goal requirements; however the City of Watertown encourages the greatest possible participation of minority and women owned business enterprises. All qualified minority and women-owned business enterprises (MWBE) suppliers, contractors, and / or businesses will be afforded equal opportunity without discrimination because of race, color, religion, national origin, sex, age, disability, or sexual preference.
10. Title VI Compliance Statement:
Pursuant to Title VI requirements, any entity or person that enters into a contract with the City of Watertown including, but not limited to prime contractors, sub-contractors, and sub-recipients, may not discriminate on the basis of race, color, national origin, age, sex, disability, or religion in their selection and retention of subcontractors (including consultants), in connection with any federally funded program or activity (including any program or activity undertaken/ funded by a City of Watertown Department that receives federal funds.)

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City of Watertown

The City of Watertown, in accordance with Title VI of the Civil Rights Act of 1964, 78 Stat. 252, 42 U.S.C. 2000d to 2000d4 and (Reference to Administering Administration Regulation(s)) issued pursuant to such Act, hereby notifies all contractors that it will affirmatively insure that in any contract entered into pursuant to this advertisement, minority business enterprises will be afforded full opportunity to submit quotes in response to this invitation and will not be discriminated against on the grounds of race, color, or national origin, gender, age or disability in consideration for an award.

BID PROPOSAL FORM

BURLINGTON STREET RECONSTRUCTION PROJECT

Sealed bids for the Burlington Street Reconstruction Project as required and set forth will be received until **11:00 a.m., local time, Wednesday, January 22, 2025**. At this time, they will be opened and publicly read by the Purchasing Manager, at Watertown City Hall, 245 Washington Street, Council Chambers, Watertown, N.Y.

Sealed bids must be enclosed in a sealed envelope plainly marked “BURLINGTON STREET RECONSTRUCTION PROJECT” with the name of the bidder and the bid number **2024-36** on the front of the envelope as specified in the notice or advertisement to bidders.

All Bidders are responsible for ensuring the timely delivery of their bids. Bids submitted after the posted due date and time will be returned unopened to the bidder. Reliance upon mail or public carriers is at the bidder’s risk. All express envelopes must be clearly marked with the words “Sealed Bid Enclosed” on the front of the outside envelope. This is important in assuring that the bid is delivered properly. The sealed bid envelope must be included inside the express envelope.

Late bids will not be accepted.

Facsimile or electronically submitted bids will not be accepted.

Any bid not in accordance with these instructions or in the forms prescribed, or not containing all documents on said bid form, may be rejected.

BIDDING DOCUMENTS AND ADDENDAS

Bidder has examined and carefully studied the Bidding Documents, and any data and reference items identified in the Bidding Documents, and hereby acknowledges receipt of the following Addenda(s), if any:

_____ Dated _____, 2025

_____ Dated _____, 2025

_____ Dated _____, 2025

_____ Dated _____, 2025

EXCEPTIONS OR LIMITATIONS TO BID SPECIFICATIONS AND CONDITIONS

This page must be completed and signed by the contractor in order for your bid to be considered by the City of Watertown.

A. If any exceptions or limitations to the bid conditions and specifications are part of your bid, you must check box 1 (below) and indicate the limitation on this page.

B. If no exceptions or limitations are part of your bid, you must check box 2 (below).

1. The following limitations or qualifications are included in this bid:

- a. Delivery:
- b. Freight or Delivery Charges:
- c. Pricing:
- d. Other (please specify):

2. No Limitations or Exceptions Apply

TIME OF COMPLETION

1. Bidder agrees that the Work will be substantially complete and will be completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions on or before the dates or within the number of calendar days indicated in the Agreement.
2. Bidder accepts the provisions of the Agreement as to liquidated damages.

ATTACHMENT TO THIS BID

The following documents shall be submitted with the Bid Proposal Form.

1. Unit Price Bidding Form by inserting the prices both in figures and in words.
2. Bid Bond or certified check equal to 5% of the stated bid is attached.
3. Non-Collusive Bidding Certification
4. Sexual Harassment Prevention Form
5. Iran Divestment Act Form
6. HUD Section 3 Compliance-Contract Clause Form
7. Contractor's Qualifications Form

Burlington Street Reconstruction Project
City of Watertown

The undersigned _____
CONTRACTOR

ADDRESS

hereby certifies that it has examined and fully comprehends the requirements and intent of the plans and specifications for the above project and offers to furnish all labor, materials, supplies, plant and equipment, and other facilities necessary and proper for or incidental to the work as detailed and tabulated in the bid items following for the total price of:

_____ (\$ _____) DOLLARS

CONTRACTOR

TELEPHONE NUMBER

PRINT NAME

AGENT/TITLE

EMAIL

WEBPAGE

DATE

SIGNATURE

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UNIT PRICE BIDDING FORM
City of Watertown
Burlington Street Reconstruction Project

December 13, 2024

**Aubertine and Currier Architects,
Engineers & Land Surveyors, PLLC**
522 Bradley Street
Watertown, NY 13601
Phone: (315)-782-2005

ITEM NO.	DESCRIPTION	UNITS	ESTIMATED QUANTITY	BID UNIT PRICE (WRITTEN IN WORDS)	BID UNIT PRICE	UNIT BID AMOUNT
001	Mobilization (Minimum Lump Sum, \$50,000)	LS	1	_____ DOLLARS _____ CENTS		
002	Record Drawings (Minimum Lump Sum, \$20,000)	LS	1	_____ DOLLARS _____ CENTS		
003	Site Demolition, Removals, ESC measures, Phasing and Temporary paving	LS	1	_____ DOLLARS _____ CENTS		
004	Tree Protection	EA	6	_____ DOLLARS _____ CENTS		
005	Tree/Stump Removal	EA	5	_____ DOLLARS _____ CENTS		
006	10-Inch PVC Sanitary Sewer Main, Excavation, Installation, Pipe, Bedding and Backfill	LF	438	_____ DOLLARS _____ CENTS		
007	8-Inch PVC Sanitary Sewer Main, Excavation, Installation, Pipe, Bedding and Backfill	LF	199	_____ DOLLARS _____ CENTS		

ITEM NO.	DESCRIPTION	UNITS	ESTIMATED QUANTITY	BID UNIT PRICE (WRITTEN IN WORDS)	BID UNIT PRICE	UNIT BID AMOUNT
008	6-Inch PVC Sanitary Sewer Lateral, Excavation, Installation, Pipe, Bedding and Backfill	LF	318	_____ DOLLARS _____ CENTS		
009	4' Diameter Sanitary Sewer Manhole	EA	6	_____ DOLLARS _____ CENTS		
010	6" Sanitary Sewer Cleanout	EA	10	_____ DOLLARS _____ CENTS		
011	Sanitary Sewer System Testing	LF	637	_____ DOLLARS _____ CENTS		
012	8-Inch DIP Water Main, Excavation, Installation, Bedding and Backfill	LF	823	_____ DOLLARS _____ CENTS		
013	Watermain Connection-Intersection of St. Mary Street and Burlington Street	EA	1	_____ DOLLARS _____ CENTS		
014	Watermain Connection-Intersection of East Lynde Street and Burlington Street	EA	1	_____ DOLLARS _____ CENTS		
015	Watermain Connection-Intersection of Farwell Street and Burlington Street	EA	1	_____ DOLLARS _____ CENTS		

ITEM NO.	DESCRIPTION	UNITS	ESTIMATED QUANTITY	BID UNIT PRICE (WRITTEN IN WORDS)	BID UNIT PRICE	UNIT BID AMOUNT
016	1-Inch Copper Water Service, Excavation, Installation, Bedding and Backfill	LF	523	_____ DOLLARS _____ CENTS		
017	Fire Hydrant Assembly, Excavation, Installation, Bedding and Backfill	EA	2	_____ DOLLARS _____ CENTS		
018	Removal of Existing Curb Stop and Curb Box Riser	EA	18	_____ DOLLARS _____ CENTS		
019	Removal of Existing Hydrant	EA	1	_____ DOLLARS _____ CENTS		
020	Water System Testing	LF	823	_____ DOLLARS _____ CENTS		
021	12-Inch SICPP Storm Sewer Pipe, Excavation, Installation, and Backfill	LF	751	_____ DOLLARS _____ CENTS		
022	4' Diameter Storm Sewer Manhole	EA	1	_____ DOLLARS _____ CENTS		
023	4' Diameter Storm Sewer Cut-In Manhole	EA	1	_____ DOLLARS _____ CENTS		

ITEM NO.	DESCRIPTION	UNITS	ESTIMATED QUANTITY	BID UNIT PRICE (WRITTEN IN WORDS)	BID UNIT PRICE	UNIT BID AMOUNT
024	City Single Precast Concrete Catch Basin	EA	10	_____ DOLLARS _____ CENTS		
025	4-Inch Storm Drain Retaining Wall Lateral, Excavation, Installation, Pipe, Bedding and Backfill	LF	407	_____ DOLLARS _____ CENTS		
026	Storm Sewer System Testing	LF	751	_____ DOLLARS _____ CENTS		
027	Aggregate Subbase (Streets)	SF	19,475	_____ DOLLARS _____ CENTS		
028	Aggregate Subbase (Asphalt Driveways)	SF	725	_____ DOLLARS _____ CENTS		
029	Aggregate Subbase (Concrete Driveways, Aprons and Curb Ramps)	SF	2,760	_____ DOLLARS _____ CENTS		
030	Aggregate Surface (Driveways)	SF	420	_____ DOLLARS _____ CENTS		
031	Asphalt Binder Course (Streets)	SF	19,475	_____ DOLLARS _____ CENTS		

ITEM NO.	DESCRIPTION	UNITS	ESTIMATED QUANTITY	BID UNIT PRICE (WRITTEN IN WORDS)	BID UNIT PRICE	UNIT BID AMOUNT
032	Asphalt Binder Course (Driveways)	SF	725	_____ DOLLARS _____ CENTS		
033	Asphalt Top Course (Streets)	SF	19,475	_____ DOLLARS _____ CENTS		
034	Asphalt Top Course (Driveways)	SF	725	_____ DOLLARS _____ CENTS		
035	Concrete Surface (6-Inch thick Driveways, Aprons and Curb Ramps)	SF	2,760	_____ DOLLARS _____ CENTS		
036	Concrete Sidewalks (4-Inch thick)	SF	6,521	_____ DOLLARS _____ CENTS		
037	Detectable Warning Strip	LF	75	_____ DOLLARS _____ CENTS		
038	Concrete Curb	LF	1,538	_____ DOLLARS _____ CENTS		
039	Crosswalk Pavement Markings	EA	7	_____ DOLLARS _____ CENTS		

ITEM NO.	DESCRIPTION	UNITS	ESTIMATED QUANTITY	BID UNIT PRICE (WRITTEN IN WORDS)	BID UNIT PRICE	UNIT BID AMOUNT
040	Parking Stall Pavement Markings	EA	17	_____ DOLLARS _____ CENTS		
041	Stop Bar Pavement Markings	EA	4	_____ DOLLARS _____ CENTS		
042	Replacement of City Monuments	EA	7	_____ DOLLARS _____ CENTS		
043	Tree Planting	EA	26	_____ DOLLARS _____ CENTS		
044	Street Signage	EA	8	_____ DOLLARS _____ CENTS		
045	"No Parking" Signage	EA	5	_____ DOLLARS _____ CENTS		
046	Chain Link Fence	LF	158	_____ DOLLARS _____ CENTS		
047	Concrete Retaining Wall	LF	493	_____ DOLLARS _____ CENTS		

ITEM NO.	DESCRIPTION	UNITS	ESTIMATED QUANTITY	BID UNIT PRICE (WRITTEN IN WORDS)	BID UNIT PRICE	UNIT BID AMOUNT
048	Concrete Steps and Handrails	EA	76	_____ DOLLARS _____ CENTS		
049	Concrete Step Sidewalls	LF	159	_____ DOLLARS _____ CENTS		
050	Concrete Steps, Landing and Handrails at #237 East Main Street	LS	1	_____ DOLLARS _____ CENTS		
051	Replace Topsoil, Seed, Mulch and Restoration	SF	12,400	_____ DOLLARS _____ CENTS		
052	Rock Removal Allowance	CY	250	_____ DOLLARS _____ CENTS		
053	Field Allowance (\$40,000)	AL	1	_____ DOLLARS _____ CENTS	\$40,000	\$40,000
				TOTAL UNIT BID AMOUNT		

ITEM NO.	DESCRIPTION	UNITS	ESTIMATED QUANTITY	BID UNIT PRICE (WRITTEN IN WORDS)	BID UNIT PRICE	UNIT BID AMOUNT
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UNIT PRICE BID ITEM DESCRIPTIONS

Bid Item 001: Mobilization (minimum lump sum, \$50,000)

1. Unit: Lump Sum
2. Description:
 - a. Payment for this item shall include full compensation for Mobilization and Demobilization, all preparatory work and operations including, but not limited to, the moving of personnel, equipment, and materials to the project site as well as the general acquisition and set up of the work area, including storage areas, requirements of Local and State law or regulation. The cost of required insurance and bonds and/or any initiation of the Contract work shall also be included in this Item. Bid Item includes construction project management, such as preparation of, schedule of values, list of subcontractors, schedule of shop drawings and submittals, setting up and tearing down of general storage and staging areas, project schedule, project surveys and stakeouts, costs associated with permits/inspections/insurance and coordination with City Departments.
 - b. Fifty percent (50%) of the lump sum price bid for mobilization will be paid upon application for first payment, but no sooner than 15 days after start of the Work at the project site.
 - c. Additional payments for mobilization will be determined and agreed upon as the project progresses.
 - d. The Owner shall withhold payment of 10% of the value of the Mobilization and Demobilization bid item until the last Payment at Substantial Completion for demobilization.
 - e. The Base Bid mobilization bid item shall not be increased due to the award of an additive bid item. Should the contractor feel additional compensation will be needed for the mobilization under an additive bid item, the contractor shall add the necessary cost increase to the General Conditions bid item for the applicable additive bid.

Bid Item 002: Record Drawings (minimum lump sum, \$20,000)

1. Unit: Lump Sum
2. Description:
 - a. Payment for this item shall include compensation for all labor, equipment, material, and incidental work associated with the furnishing of complete record drawings to be prepared on a clean set of Contract Drawings.
 - b. As-built information shall be maintained on a clean set of plan drawings, and all record drawings as required by the Contract Documents.
 - c. Payment is made upon receipt of as-builts, complete with all required information.

Bid Item 003: Site Demolition, Removals, ESC measures, Phasing, and Temporary Paving.

1. Unit: Lump Sum
2. Description:

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- a. Payment for this item shall include full compensation for all labor, equipment, material, and incidental work associated with the demolition and removal of site features located within the limits of the project, which are not covered under other pay items.
- b. Work included in payment also includes but is not limited to removal and disposal of asphalt pavement, concrete walks, steps, retaining walls, trees, stumps, shrubs, fencing, handrails, trenching, excavation, backfill, daily safety/orange fencing of open excavations as directed by Engineer or shown on drawings, temporary sheeting, shoring, bracing, dewatering and drainage, appurtenances, phasing of work activities and temporary paving are complete, removal of surplus material, erosion and sediment control measures, dust control, maintaining access to private property, maintenance and protection of vehicle and pedestrian traffic, clean-up, protection and support of existing utilities.
- c. Twenty-five percent (25%) payment shall be made upon completion of demolition and removals of asphalt and concrete surfaces.
- d. Additional payment will be determined as agreed upon as the project progresses.
- e. A payment of up to Fifty percent (50%) following the installation of utilities.
- f. A payment of up to Seventy-five percent (75%) following the placement of aggregate subbases.
- g. A payment of the final Twenty-five percent (25%) would not be considered until permanent asphalt, concrete and lawn surfaces are complete.

Bid Item 004: Tree Protection

1. Unit: Each
2. Description:
 - a. Payment for this item shall include full compensation for all labor, equipment, material, and incidental work associated with furnishing and installation of the protection of trees as indicated in the Contract Documents.
 - b. Work included in payment also includes but is not limited to all lines and grades, maintenance and protection of traffic, clean-up, protect and support existing utilities.
 - c. Payment shall be measured as the total number of tree protections installed, in accordance with the site plans, details, and specifications.
3. Related work:
32 9300-Plants

Bid Item 005: Tree/Stump Removal

1. Unit: Each
2. Description:
 - a. Payment for this item shall include full compensation for all labor, equipment, material, and incidental work associated with removal of trees/stumps as indicated in the Contract Documents.

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- b. Work included in payment also includes but is not limited to all lines and grades, maintenance and protection of traffic, clean-up, protect and support existing utilities.
 - c. Payments shall be measured as the total number of trees/stumps removed.
3. Related work:
32 9300-Plants

Bid Item 006: 10-Inch PVC Sanitary Sewer Main, Excavation, Installation, Pipe, Bedding and Backfill.

- 1. Unit: Linear Foot
- 2. Description:
 - a. Payment for this item shall include full compensation for all labor, equipment, material, and incidental work associated with the installation of the of 10” SDR-35 PVC sanitary sewer piping, by means of trenching, with all fittings, wyes, couplings as required for a complete system which are not covered under other pay items.
 - b. Work included in payment also includes but is not limited to removal of asphalt, excavation to all lines and grades, trenching, excavation, bedding, backfill, compaction, compaction testing, daily safety/orange fencing of open excavations as directed by Engineer or shown on drawings, temporary sheeting, shoring, bracing, dewatering and drainage, appurtenances, removal of surplus material, dust control, maintaining access to private property, maintenance and protection of traffic, temporary bypass pumping, clean-up, protection and support of existing utilities.
 - c. Payment shall be measured by total horizontal measurement in linear feet of sanitary sewer main installed along the centerline of the installed pipe, and shall not be made until backfill, compaction, compaction testing, and grading to subgrade are complete.
- 3. Related work:
 - 31 2323.13-Trenching
 - 31 2319-Dewatering and Drainage
 - 33 3113-Site Sanitary Sewage Gravity Piping

Bid Item 007: 8-Inch PVC Sanitary Sewer Main, Excavation, Installation, Pipe, Bedding and Backfill.

- 1. Unit: Linear Foot
- 2. Description:
 - a. Payment for this item shall include full compensation for all labor, equipment, material, and incidental work associated with the installation of the of 8” SDR-35 PVC sanitary sewer piping, by means of trenching, with all fittings, wyes, couplings as required for a complete system which are not covered under other pay items.
 - b. Work included in payment also includes but is not limited to removal of asphalt, excavation to all lines and grades, trenching, excavation, bedding, backfill, compaction, compaction testing, daily safety/orange fencing of open

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excavations as directed by Engineer or shown on drawings, temporary sheeting, shoring, bracing, dewatering and drainage, appurtenances, removal of surplus material, dust control, maintaining access to private property, maintenance and protection of traffic, temporary bypass pumping, clean-up, protection and support of existing utilities.

- c. Payment shall be measured by total horizontal measurement in linear feet of sanitary sewer main installed along the centerline of the installed pipe, and shall not be made until backfill, compaction, compaction testing, and grading to subgrade are complete.

3. Related work:

31 2323.13-Trenching

31 2319-Dewatering and Drainage

33 3113-Site Sanitary Sewage Gravity Piping

Bid Item 008: 6" PVC Sanitary Sewer Laterals, Excavation, Installation, Pipe, Bedding and Backfill

1. Unit: Linear Foot

2. Description:

- a. Payment for this item shall include full compensation for all labor, equipment, material, and incidental work associated with installing 6" PVC sanitary sewer lateral piping by trenching with all fittings, couplings, connections, and appurtenances as indicated in the Contract Documents which are not covered under other pay items.
- b. Work included in payment also includes but is not limited to removal of asphalt, concrete curb, concrete sidewalk, excavation to all lines and grades, bedding, backfill, compaction, compaction testing, dewatering and drainage, maintaining access to private property, protection and support of existing utilities, appurtenances, fittings, temporary bypass pumping, clean-up, maintenance and protection of traffic.
- c. Payment shall be measured by the total horizontal measurement in linear feet of sanitary sewer lateral installed along the centerline of the installed pipe, and shall not be made until backfill, compaction, compaction testing, and grading are complete.

3. Related work:

31 2323.13-Trenching

31 2319-Dewatering and Drainage

33 3113-Site Sanitary Sewage Gravity Piping

Bid Item 009: 4' Diameter Sanitary Sewer Manhole

1. Unit: Each

2. Description:

- a. Payment for this item shall include full compensation for all labor, equipment, material, and incidental work associated with installing manhole structure complete including but not limited to, 4' diameter precast concrete sanitary sewer manhole, manhole frame/cover, sewer main pipe connection

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at locations and depths indicated in the Contract Documents which are not covered under other pay items.

- b. Work included in payment also includes but is not limited to excavation to depth of base of the structure, backfill, compaction, sheeting, shoring, bracing, dewatering and drainage, temporary bypass pumping, dust control, removal of surplus material, clean-up, protect and support existing utilities.
3. Related work:
 - 31 2316.13-Trenching
 - 31 2319-Dewatering and Drainage
 - 33 0561-Concrete Manholes

Bid Item 010: 6" PVC Sanitary Sewer Cleanout

1. Unit: Each.
2. Description:
 - a. Payment for this item shall include full compensation for all labor, equipment, material, and incidental work associated with installing cleanouts, wyes, elbows, cast iron covers and concrete collars, at locations and depths indicated in the Contract Documents which are not covered under other pay items.
 - b. Work included in payment also includes but is not limited to excavation, trenching, grading, appurtenances, clean-up, protection and support of existing utilities, maintaining access to private property.
3. Related work:
 - 31 2323.13-Trenching
 - 31 2319-Dewatering and Drainage
 - 33 3113-Site Sanitary Sewage Gravity Piping

Bid Item 011: Sanitary Sewer System Testing

1. Unit: Linear Foot
2. Description:
 - a. Payment for this item shall include full compensation for all labor, equipment, material, and incidental work associated with testing of sanitary sewer mains and manholes as required by the Contract Documents.
 - b. Work included in payment includes but is not limited to appurtenances, pumping or transportation of water, disposal of water, and cleanup.
 - c. Payment length is measured horizontally along the centerline of the installed sanitary sewer mains, not services.
3. Related Work:
 - 33 3113-Site Sanitary Sewage Gravity Piping

Bid Item 012: 8-Inch Ductile Iron Watermain, Excavation, Installation, Bedding and Backfill.

1. Unit: Linear Foot
2. Description:
 - a. Payment for this item shall include full compensation for all labor, equipment, material, and incidental work associated with the installation of 8" CL-52 DI watermain piping, by means of trenching, with all fittings, tees, bends,

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reducers, continuity, poly wrap, and connections of size and class as required for a complete system which are not specifically provided by owner or covered under other pay items.

- b. Work included in payment also includes but is not limited excavation to all lines and grades, trenching, excavation, bedding, backfill, marking, compaction, temporary water piping, compaction testing, daily safety/ orange fencing of open excavations as directed by Engineer or shown on drawings, temporary sheeting, shoring, bracing, dewatering and drainage, appurtenances, fittings, removal of surplus material, dust control, maintaining access to private property, maintenance and protection of traffic, clean-up, protection and support of existing utilities.
 - c. Payment shall be measured by total horizontal measurement in linear feet of water main installed along the centerline of the installed pipe, and shall not be made until backfill, compaction, compaction testing, and grading to subgrade are complete.
3. Related work:
- 31 2323.13-Trenching
 - 31 2319-Dewatering and Drainage
 - 33 1416-Site Water Utility Distribution

Bid Item 013: Watermain Connection-Intersection of St. Mary Street and Burlington Street

1. Unit: Each
2. Description:
 - a. Payment for this item shall include full compensation for all labor, equipment, material, and incidental work associated with installing 8" x 8"-inch tapping sleeve, 8" valve/valve box and tapping of 8" watermain at locations, depths and of the same class as indicated in the Contract Documents.
 - b. Work included in payment also includes but is not limited to excavation to all lines and grades, bedding, backfill, compaction, sheeting, shoring, bracing, dewatering and drainage, dust control, maintaining access to private property, removal of surplus material, maintenance and protection of traffic, clean-up, protect and support existing utilities.
 - c. Payment is measured upon each connection made in accordance with the contract documents.
3. Related work:
 - 31 2316.13-Trenching
 - 31 2319-Dewatering and Drainage
 - 33 1416-Site Water Utility Distribution

Bid Item 014: Watermain Connection-Intersection of East Lynde Street and Burlington Street

1. Unit: Each
2. Description:
 - a. Payment for this item shall include full compensation for all labor, equipment, material, and incidental work associated with cutting in of an 8" valve/valve box and restraints, 8" piping, 8"x6" reducer fitting, removal of

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- 6" C.I. watermain, and reconnecting to the 6" C.I. watermain at locations, depths and of the same class as indicated in the Contract Documents.
 - b. Work included in payment also includes but is not limited to excavation to all lines and grades, bedding, backfill, compaction, sheeting, shoring, bracing, dewatering and drainage, dust control, maintaining access to private property, removal of surplus material, maintenance and protection of traffic, clean-up, protect and support existing utilities.
 - c. Payment is measured upon each connection made in accordance with the contract documents.
3. Related work:
- 31 2316.13-Trenching
 - 31 2319-Dewatering and Drainage
 - 33 1416-Site Water Utility Distribution

Bid Item 015: Watermain Connection-Intersection of Farwell Street and Burlington Street

- 1. Unit: Each
- 2. Description:
 - a. Payment for this item shall include full compensation for all labor, equipment, material, and incidental work associated with cutting in of an 8" valve/valve box and restraints, 8" piping, 8"x4" reducer fitting, removal of 4" C.I. watermain, and reconnecting to the 4" C.I. watermain at locations, depths and of the same class as indicated in the Contract Documents.
 - b. Work included in payment also includes but is not limited to excavation to all lines and grades, bedding, backfill, compaction, sheeting, shoring, bracing, dewatering and drainage, dust control, maintaining access to private property, removal of surplus material, maintenance and protection of traffic, clean-up, protect and support existing utilities.
 - c. Payment is measured upon each connection made in accordance with the contract documents.
- 3. Related work:
 - 31 2316.13-Trenching
 - 31 2319-Dewatering and Drainage
 - 33 1416-Site Water Utility Distribution

Bid Item 016: 1-Inch Copper, Type K Water Service, Excavation, Bedding and Backfill

- 1. Unit: Linear Foot
- 2. Description:
 - a. Payment for this item shall include full compensation for all labor, equipment, material, and incidental work associated with installing 1-Inch Copper water service piping by trenching with all fittings, couplings, connections, and appurtenances as indicated in the Contract Documents which are not specifically provided by owner or covered under other pay items.
 - b. Work included in payment also includes but is not limited to excavation to all lines and grades, bedding, backfill, compaction, compaction testing,

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dewatering and drainage, maintaining access to private property, protection and support of existing utilities, temporary piping, appurtenances, fittings, jointing, marking, flushing, clean-up, maintenance and protection of traffic.

- c. Payment shall be measured by the total horizontal measurement in linear feet of water service installed along the centerline of the installed pipe, and shall not be made until backfill, compaction, compaction testing, and grading are complete.
3. Related work:
 - 31 2316.13-Trenching
 - 31 2319-Dewatering and Drainage
 - 33 1416-Site Water Utility Distribution

Bid Item 017: Fire Hydrant Assembly, Excavation, Installation, Bedding and Backfill

1. Unit: Each
2. Description:
 - a. Payment for this item shall include full compensation for all labor, equipment, material, and incidental work associated with installing a complete hydrant assembly including but not limited to, tee, 6" pipe, 6" gate valve/valve box, hydrant, and restraints at locations and depths indicated in the Contract Documents which are not specifically provided by owner or covered under other pay items.
 - b. Work included in payment also includes but is not limited to excavation to all lines and grades, bedding, backfill, compaction, sheeting, shoring, bracing, dewatering and drainage, dust control, maintaining access to private property, removal of surplus material, maintenance and protection of traffic, clean-up, protect and support existing utilities.
 - c. Payment shall be measured as the total of each hydrant assembly, and shall not be made until backfill, compaction, compaction testing, and grading are complete.
3. Related work:
 - 31 2316.13-Trenching
 - 31 2319-Dewatering and Drainage
 - 33 1416-Site Water Utility Distribution

Bid Item 018: Removal of Existing Curb Stop and Curb Box Riser

1. Unit: Each
2. Description:
 - a. Payment for this item shall include full compensation for all labor, equipment, material, and incidental work associated with removal of curb stop and curb box riser.
 - b. Work included in payment also includes but is not limited to excavation to all lines and grades, bedding, backfill, compaction, sheeting, shoring, bracing, dewatering and drainage, dust control, maintaining access to private property, removal of surplus material, maintenance and protection of traffic, clean-up, protect and support existing utilities.

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- c. Payment shall be measured as the total of each curb stop removed.
- 3. Related work:
 - 31 2316.13-Trenching
 - 33 1416-Site Water Utility Distribution

Bid Item 019: Removal of Existing Hydrant

- 1. Unit: Each
- 2. Description:
 - a. Payment for this item shall include full compensation for all labor, equipment, material, and incidental work associated with the removal of hydrant assembly, including closing of valve and removal of valve box riser.
 - b. Work included in payment also includes but is not limited to excavation to all lines and grades, bedding, backfill, compaction, sheeting, shoring, bracing, dewatering and drainage, dust control, maintaining access to private property, removal of surplus material, maintenance and protection of traffic, clean-up, protect and support existing utilities.
 - c. Existing hydrants shall be salvaged. Contractor shall store salvaged hydrants on-site and the owner will provide a one-time pick-up during the project.
 - d. Payment shall be measured as the total of each hydrant assembly removed.
- 3. Related work:
 - 31 2316.13-Trenching
 - 33 1416-Site Water Utility Distribution

Bid Item 020: Water System Testing

- 1. Unit: Linear Foot
- 2. Description:
 - a. Payment for this item shall include full compensation for all labor, equipment, material, and incidental work associated with flushing, pressure testing, of mains and services as required by the Contract Documents.
 - b. Work included in payment includes but is not limited to coordination and scheduling with the City, cleaning and flushing of the watermain and services, the supply of potable water, pumping, disposal of chlorinated water for pressure testing and disinfection of watermain, and cleanup.
 - c. Payment length is total length measured horizontally along the centerline of the installed watermains, not services. Payment will not be made until satisfactory completion of all tests/disinfection, and activation of the watermain.
 - d. Disinfection and sampling shall be conducted by the City of Watertown Water Department.**
- 3. Related Work:
 - 33 1416-Site Water Utility Distribution

Bid Item 021: 12-Inch SICPP Storm Sewer Pipe, Excavation, Installation, Bedding and Backfill.

- 1. Unit: Linear Foot
- 2. Description:

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- a. Payment for this item shall include full compensation for all labor, equipment, material, and incidental work associated the installation of 12” SICPP storm sewer piping, by means of trenching, with all fittings, and connections of size and class as required for a complete system which are not covered under other pay items.
 - b. Work included in payment also includes but is not limited to removal of asphalt, concrete curb, excavation to all lines and grades, trenching, excavation, bedding, backfill, compaction, compaction testing, daily safety/ orange fencing of open excavations as directed by Engineer or shown on drawings, temporary sheeting, shoring, bracing, dewatering and drainage, appurtenances, fittings, removal of surplus material, dust control, maintaining access to private property, maintenance and protection of traffic, clean-up, protection and support of existing utilities.
 - c. Payment shall be measured by total horizontal measurement in linear feet of storm sewer pipe installed along the centerline of the installed pipe, and shall not be made until backfill, compaction, compaction testing, and grading to subgrade are complete.
3. Related work:
- 31 2323.13-Trenching
 - 31 2319-Dewatering and Drainage
 - 33 4211-Stormwater Gravity Piping

Bid Item 022: 4’ Diameter Storm Sewer Manhole

1. Unit: Each
2. Description:
 - a. Payment for this item shall include full compensation for all labor, equipment, material, and incidental work associated with installing manhole structure complete, including but not limited to, 4’ diameter precast concrete storm sewer manhole, manhole frame/cover and gasket sleeves at locations and depths indicated in the Contract Documents which are not covered under other pay items.
 - b. Work included in payment also includes but is not limited to excavation to depth of base of the structure, backfill, compaction, sheeting, shoring, bracing, dewatering and drainage, dust control, maintaining access to private property, removal of surplus material, clean-up, protect and support existing utilities.
 - c. Payment is measured as the total of installed manholes, and shall not be made until backfill, compaction, compaction testing, and grading to subgrade are complete.
3. Related work:
 - 31 2316.13-Trenching
 - 31 2319-Dewatering and Drainage
 - 33 0561-Concrete Manholes

Bid Item 023: 4’ Diameter Storm Sewer Cut-In Manhole

1. Unit: Each

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2. Description:
 - a. Payment for this item shall include full compensation for all labor, equipment, material, and incidental work associated with installing manhole structure complete, including but not limited to, cut in existing storm sewer pipe, 4' diameter precast concrete storm sewer manhole, manhole frame/cover, gasket sleeves, spool pieces of pipe, couplings, and reconnection to existing storm pipe at locations and depths indicated in the Contract Documents which are not covered under other pay items.
 - b. Work included in payment also includes but is not limited to excavation to depth of base of the structure, backfill, compaction, sheeting, shoring, bracing, dewatering and drainage, dust control, maintaining access to private property, removal of surplus material, clean-up, protect and support existing utilities.
 - c. Payment is measured as the total of installed cut-in manholes, and shall not be made until backfill, compaction, compaction testing, and grading to subgrade are complete.
3. Related work:
 - 31 2316.13-Trenching
 - 31 2319-Dewatering and Drainage
 - 33 0561-Concrete Manholes

Bid Item 024: City Single Precast Concrete Catch Basin

1. Unit: Each
2. Description:
 - a. Payment for this item shall include full compensation for all labor, equipment, material, and incidental work associated with installing catch basin structures complete including but not limited to, precast concrete City single catch basins, reticuline grate and gasket sleeves at locations and depths indicated in the Contract Documents which are not covered under other pay items.
 - b. Work included in payment also includes but is not limited to excavation to depth of base of the structure, backfill, compaction, sheeting, shoring, bracing, dewatering and drainage, dust control, maintaining access to private property, removal of surplus material, clean-up, protect and support existing utilities.
 - c. Payment is measured as the total of installed City single catch basins, and shall not be made until backfill, compaction, compaction testing, and grading to subgrade are complete.
3. Related work:
 - 31 2316.13-Trenching
 - 31 2319-Dewatering and Drainage
 - 33 4230-Stormwater Drains

Bid Item 025: 4" PVC Storm Drain Retaining Wall Laterals, Excavation, Installation, Pipe, Bedding and Backfill

1. Unit: Linear Foot

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2. Description:
 - a. Payment for this item shall include full compensation for all labor, equipment, material, and incidental work associated with installing 4" PVC storm sewer drain piping by trenching with all fittings, couplings, connections, couplings, and appurtenances as indicated in the Contract Documents which are not covered under other pay items.
 - b. Work included in payment also includes but is not limited to removal of asphalt, concrete curb, concrete sidewalk, excavation to all lines and grades, bedding, backfill, compaction, compaction testing, dewatering and drainage, maintaining access to private property, protection and support of existing utilities, appurtenances, fittings, clean-up, maintenance and protection of traffic.
 - c. Payment shall be measured by the total horizontal measurement in linear feet of storm drain retaining wall lateral sewer pipe installed along the centerline of the installed pipe, and shall not be made until backfill, compaction, compaction testing, and grading are complete.
3. Related work:
 - 31 2323.13-Trenching
 - 31 2319-Dewatering and Drainage
 - 33 3113-Site Sanitary Sewage Gravity Piping

Bid Item 026: Storm Sewer System Testing

1. Unit: Linear Foot
2. Description:
 - a. Payment for this item shall include full compensation for all labor, equipment, material, and incidental work associated with deflection testing, and video inspection of storm sewer mains as required by the Contract Documents.
 - b. Payment length is the total measured horizontally along the centerline of the installed storm sewer mains, not laterals.
3. Related Work:
 - 33 4211-Stormwater Gravity Piping
 - 33 4230-Stormwater Drains

Bid Item 027: Aggregate Subbase (Streets)

1. Unit: Square Foot
2. Description:
 - a. Payment for this item shall include full compensation for all labor, equipment, material, and incidental work associated with the complete installation of aggregate subbase for streets to the depths described by the Engineer or as shown in the Contract Documents.
 - b. Work included in payment also includes but is not limited to lines and grades, saw cut joints, asphalt base course installation, maintaining access to Street, clean-up, maintaining access to private property, cut backs as indicated in contract documents or as ordered by engineer, maintenance and protection of traffic.

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- c. Payment shall be measured as the total installed aggregate subbase (street) surface in accordance with the payment limits which are indicated on the site plans and details.
 3. Related work:
 - 31 2316.13-Trenching
 - 32 1216-Asphalt Paving.

Bid Item 028: Aggregate Subbase (Asphalt Driveways)

1. Unit: Square Foot
2. Description:
 - a. Payment for this item shall include full compensation for all labor, equipment, material, and incidental work associated with the complete installation of aggregate base material for driveways to the depths described by the Engineer or as shown in the Contract Documents.
 - b. Work included in payment also includes but is not limited to lines and grades, aggregate subbase installation in driveways, clean-up, maintaining access to private property, limits as indicated in contract documents or as ordered by engineer, maintenance and protection of traffic.
 - c. Payment shall be measured as the total aggregate subbase (asphalt driveway) surface in accordance with the payment limits which are indicated on the site plans and details.
3. Related work:
 - 32 1123-Aggregate Base Course
 - 32 1216-Asphalt Paving.

Bid Item 029: Aggregate Subbase (Concrete Driveway, Aprons and Curb Ramps)

1. Unit: Square Foot
2. Description:
 - a. Payment for this item shall include full compensation for all labor, equipment, material, and incidental work associated with the complete installation of aggregate base course for concrete driveways, aprons and curb ramps to the depths described by the Engineer or as shown in the Contract Documents.
 - b. Work included in payment also includes but is not limited to lines and grades, saw cut joints, aggregate base material installation in driveways, clean-up, maintaining access to private property, cut backs as indicated in contract documents or as ordered by engineer, maintenance and protection of traffic.
 - c. Payment shall be measured as the total installed aggregate subbase surface (concrete driveways and aprons) in accordance with the payment limits which are indicated on the site plans and details.
3. Related work:
 - 31 2316.13-Trenching
 - 32 1123-Aggregate Base Course

Bid Item 030: Aggregate Surface (Driveways)

1. Unit: Square Foot

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City of Watertown

2. Description:
 - a. Payment for this item shall include full compensation for all labor, equipment, material, and incidental work associated with the complete installation of aggregate material for driveways to the depths described by the Engineer or as shown in the Contract Documents.
 - b. Work included in payment also includes but is not limited to lines and grades, aggregate material installation in driveways, clean-up, maintaining access to private property, limits as indicated in contract documents or as ordered by engineer, maintenance and protection of traffic.
 - c. Payment shall be measured as the total aggregate surface (driveways) in accordance with the payment limits which are indicated on the site plans and details.
3. Related work:
 - 31 2316.13-Trenching
 - 32 1123-Aggregate Base Course

Bid Item 031: Asphalt Binder Course (Streets)

1. Unit: Square Foot
2. Description:
 - a. Payment for this item shall include full compensation for all labor, equipment, material, and incidental work associated with the complete installation of binder course asphalt for the streets to the depths described by the Engineer or as shown in the Contract Documents.
 - b. Work included in payment also includes but is not limited to lines and grades, saw cut joints, asphalt binder course installation within City streets, clean-up, maintaining access to private property, cut backs as indicated in contract documents or as ordered by engineer, maintenance and protection of traffic.
 - c. Payment shall be measured as the total installed binder course surface in accordance with the payment limits which are indicated on the site plans and details.
3. Related work:
 - 31 2316.13-Trenching
 - 32 1216-Asphalt Paving.

Bid Item 032: Asphalt Binder Course (Driveways)

1. Unit: Square Foot
2. Description:
 - a. Payment for this item shall include full compensation for all labor, equipment, material, and incidental work associated with the complete installation of binder course asphalt for driveways to the depths described by the Engineer or as shown in the Contract Documents.
 - b. Work included in payment also includes but is not limited to lines and grades, saw cut joints, asphalt binder course installation in driveways, clean-up, maintaining access to private property, cut backs as indicated in contract documents or as ordered by engineer, maintenance and protection of traffic.

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- c. Payment shall be measured as the total installed binder course surface in accordance with the payment limits which are indicated on the site plans and details.
3. Related work:
 - 31 2316.13-Trenching
 - 32 1216-Asphalt Paving.

Bid Item 033: Asphalt Top Course (Streets)

1. Unit: Square Foot
2. Description:
 - a. Payment for this item shall include full compensation for all labor, equipment, material, and incidental work associated with the complete installation of top course asphalt for the streets to the depths described by the Engineer or as shown in the Contract Documents.
 - b. Work included in payment also includes but is not limited to lines and grades, saw cut joints, asphalt top course installation within City streets, joint sealants, clean-up, maintaining access to private property, cut backs as indicated in contract documents or as ordered by engineer, maintenance and protection of traffic.
 - c. Payment shall be measured as the total installed top course surface in accordance with the payment limits which are indicated on the site plans and details.
3. Related work:
 - 31 2316.13-Trenching
 - 32 1216-Asphalt Paving.

Bid Item 034: Asphalt Top Course (Driveways)

1. Unit: Square Foot
2. Description:
 - a. Payment for this item shall include full compensation for all labor, equipment, material, and incidental work associated with the complete installation of top course asphalt for driveways to the depths described by the Engineer or as shown in the Contract Documents.
 - b. Work included in payment also includes but is not limited to lines and grades, saw cut joints, asphalt top course installation in private drives, joint sealants, clean-up, maintaining access to private property, cut backs as indicated in contract documents or as ordered by engineer, maintenance and protection of traffic.
 - c. Payment shall be measured as the total installed surface in accordance with the payment limits which are indicated on the site plans and details.
3. Related work:
 - 31 2316.13-Trenching
 - 32 1216-Asphalt Paving.

Bid Item 035: Concrete Surface (Driveway, Aprons and Curb Ramps)

1. Unit: Square Foot

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City of Watertown

2. Description:
 - a. Payment for this item shall include full compensation for all labor, equipment, material, and incidental work associated with the complete installation of concrete paving in driveways, aprons and curb ramps to the depths described by the Engineer or as shown in the Contract Documents.
 - b. Work included in payment also includes but is not limited to lines and grades, saw cut joints, concrete paving installation in driveways, aprons and curb ramps, clean-up, maintaining access to private property, cut backs as indicated in contract documents or as ordered by engineer, maintenance and protection of traffic.
 - c. Payment shall be measured as the total installed concrete surface (driveways, aprons and curb ramps in accordance with the payment limits which are indicated on the site plans and details.
3. Related work:
 - 31 2316.13-Trenching
 - 32 1313-Concrete Paving

Bid Item 036: Concrete Sidewalk

1. Unit: Square Feet
2. Description:
 - a. Payment for this item shall include full compensation for all labor, equipment, material, and incidental work associated with the complete installation of concrete sidewalks, to the depths described by the Engineer or as shown in the Contract Documents.
 - b. Work included in payment also includes but is not limited to excavation to all lines and grades, installation of concrete sidewalks, joints, aggregate base course material, maintaining access to private property, removal of surplus material, maintenance and protection of traffic, and clean-up.
 - c. Payment shall be measured as the total installed concrete sidewalk surface in accordance with the payment limits which are indicated on the site plans and details.
3. Related work:
 - 31 2316.13-Trenching
 - 32 1313-Concrete Paving

Bid Item 037: Detectable Warning Strip

1. Unit: Linear Foot
2. Description:
 - a. Payment for this item shall include full compensation for all labor, equipment, material, and incidental work associated with furnishing and installation of cast-in-place detectable warning strips at all locations as shown on the plans or as indicated in the Contract Documents.
 - b. Work included in payment also includes but is not limited to removal of surplus material, maintenance and protection of traffic, clean-up, protect and support existing utilities.

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- c. Payment shall be measured by the total horizontal measurement of each length of detectable warning strip along the face of curb at each location, rounded up to the nearest foot, and completed in accordance with the plans and specifications.
3. Related work:
 - 32 1313-Concrete Paving
 - 32 1726-Tactile Warning Surfacing

Bid Item 038: Concrete Curb

1. Unit: Linear Foot
2. Description:
 - a. Payment for this item shall include full compensation for all labor, equipment, material, and incidental work associated with the complete installation of concrete curb described by the Engineer or as shown in the Contract Documents.
 - b. Work included in payment also includes but is not limited to excavation to all lines and grades, installation of concrete curbs, joints, aggregate base course material, maintaining access to private property, removal of surplus material, maintenance and protection of traffic, clean-up, protect and support existing utilities.
 - c. Payment shall be measured as the total installed length of curb as measured along the face and completed in accordance with the plans and specifications.
3. Related work:
 - 31 2316.13-Trenching
 - 32 1313-Concrete Paving

Bid Item 039: Crosswalk Pavement Markings

1. Unit: Each
2. Description:
 - a. Payment for this item shall include full compensation for all labor, equipment, material, and incidental work associated with the complete installation of crosswalk pavement markings described by the Engineer or as shown in the Contract Documents.
 - b. Work included in payment also includes but is not limited to excavation to all lines and grades, maintaining access to private property, removal of surplus material, maintenance and protection of traffic, clean-up, protect and support existing utilities.
 - c. Payment shall be measured as the total number of crosswalks, which are installed as indicated in accordance with the site plans, details, and specifications.
3. Related work:
 - 32 1723-Pavement Markings

Bid Item 040: Parking Stall Pavement Markings

1. Unit: Each
2. Description:

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City of Watertown

- a. Payment for this item shall include full compensation for all labor, equipment, material, and incidental work associated with the complete installation of parking stall pavement markings described by the Engineer or as shown in the Contract Documents.
 - b. Work included in payment also includes but is not limited to excavation to all lines and grades, maintaining access to private property, removal of surplus material, maintenance and protection of traffic, clean-up, protect and support existing utilities.
 - c. Payment shall be measured as the total number of parking stalls, which are installed as indicated in accordance with the site plans, details, and specifications.
3. Related work:
32 1723-Pavement Markings

Bid Item 041: Stop Bar Pavement Markings

1. Unit: Each
2. Description:
 - a. Payment for this item shall include full compensation for all labor, equipment, material, and incidental work associated with the complete installation of stop bar pavement markings described by the Engineer or as shown in the Contract Documents.
 - b. Work included in payment also includes but is not limited to excavation to all lines and grades, maintaining access to private property, removal of surplus material, maintenance and protection of traffic, clean-up, protect and support existing utilities.
 - c. Payment shall be measured as the total number of stop bar markings, which are installed as indicated in accordance with the site plans, details, and specifications.
3. Related work:
32 1723-Pavement Markings

Bid Item 042: Replacement of City Monuments

1. Unit: Each
2. Description:
 - a. Payment for this item shall include compensation for all labor equipment, material, incidentals, and survey work associated with the replacement of City Monument, Concrete Base, Brass Disc, Frame/Cover, setting of Monument Punch Mark, and Certified Plat as indicated in the Contract Documents and required by City's Standard Specifications.
 - b. Stakeout, Monument Punch Mark and Certified Plat shall be conducted by a Licensed Professional Land Surveyor
 - c. Payment shall be measured as the total number of installed monuments, in accordance with the site plans, details, and specifications.
 - d. **Brass Disk shall be provided by City.**

Bid Item 043: Tree Planting

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City of Watertown

1. Unit: Each
2. Description:
 - a. Payment for this item shall include full compensation for all labor, equipment, material, and incidental work associated with furnishing and installation of tree plantings as indicated in the Contract Documents.
 - b. Work included in payment also includes but is not limited to excavation to all lines and grades, planting soil, backfill, mulch, fertilizer, watering device, watering, staking, maintenance and protection of the tree, clean-up, protect and support existing utilities, warranty, and maintenance.
 - c. Payment shall be measured as the total number of installed trees, in accordance with the site plans, details, and specifications.
3. Related work:
32 9300-Plants

Bid Item 044: Street Signage

1. Unit: Each
2. Description:
 - a. Payment for this item shall include compensation for all labor equipment, material, and incidental associated with installation of street signage as indicated in the Contract Documents.
 - b. Work included in payment also includes but is not limited to all posts, sign panels and hardware, maintenance and protection of traffic, clean-up, protect and support existing utilities.
 - c. Payment shall be measured by the total number of sign posts which are installed as indicated on the site plans and details.

Bid Item 045: "No Parking" Signage

1. Unit: Each
2. Description:
 - a. Payment for this item shall include compensation for all labor equipment, material, and incidental associated with installation of "no parking" signage as indicated in the Contract Documents.
 - b. Work included in payment also includes but is not limited to all posts, sign panels and hardware, maintenance and protection of traffic, clean-up, protect and support existing utilities.
 - c. Payment shall be measured by the total number of sign posts which are installed as indicated on the site plans and details.

Bid Item 046: Chain Link Fence

1. Unit: Linear Foot
2. Description:
 - a. Payment for this item shall include full compensation for all labor, equipment, material, and incidental work associated with the complete installation of chain link fence described by the Engineer or as shown in the Contract Documents.

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City of Watertown

- b. Work included in payment also includes but is not limited to excavation to all lines and grades, installation of chain link fence in it's entirety, inclusive of all fabric posts, bracing, rails, wire, foundations, etc., maintaining access to private property, removal of surplus material, maintenance and protection of traffic, clean-up, protect and support existing utilities.
 - c. Payment shall be measured as the horizontal length of fence installed within the payment limits which are indicated on the site plans and details.
 3. Related work:
32 3113-Chain Link Fence

Bid Item 047: Concrete Retaining Wall

1. Unit: Linear Foot
2. Description:
 - a. Payment for this item shall include full compensation for all labor, equipment, material, and incidental work associated with the installation of cast in place concrete retaining wall at all locations as shown on the plans, details, and specifications.
 - b. Work included in payment also includes but is not limited to removal of surplus material, layout, lines and grades, perforated drain pipe and fittings, drainage stone material, filter fabric, maintenance and protection of surrounding lawn area, clean-up, protection and support existing utilities.
 - c. Payment shall be measured as the total length of installed retaining wall as measured along the face of wall, within the payment limits which are indicated on the site plans and details.
3. Related work:
03 3000-Cast-in Place Concrete
33 4211-Stormwater Gravity Piping

Bid Item 048: Concrete Steps and Handrails

1. Unit: Each
2. Description:
 - a. Payment for this item shall include full compensation for all labor, equipment, material, and incidental work associated with the installation of cast in place concrete steps and handrails at all locations as shown on the plans or as shown in the Contract Documents.
 - b. Work included in payment also includes but is not limited to removal of surplus material, lines and grades, handrails, maintenance and protection of surrounding lawn area, clean-up, protect and support existing utilities.
 - c. Payment shall be measured as the total number of vertical steps installed in accordance with the payment limits which are indicated on the site plans and details.
3. Related work:
03 3000-Cast-in Place Concrete
05 5213-Pipe and Tube Railing

Bid Item 049: Concrete Step Sidewalls

Burlington Street Reconstruction Project
City of Watertown

1. Unit: Linear Foot
2. Description:
 - a. Payment for this item shall include full compensation for all labor, equipment, material, and incidental work associated with the installation of cast in place concrete step sidewalls at all locations as shown on the plans or as shown in the Contract Documents.
 - b. Work included in payment also includes but is not limited to removal of surplus material, lines and grades, maintenance and protection of surrounding lawn area, clean-up, protect and support existing utilities.
 - c. Payment shall be measured as the total length of step sidewall measured horizontally from the base of the step sidewall to the top of the step, as installed in accordance with the payment limits which are indicated on the site plans and details.
3. Related work:
03 3000-Cast-in Place Concrete

Bid Item 050: Concrete Steps, Landing and Handrails at #237 East Main Street

1. Unit: Lump Sum
2. Description:
 - a. Payment for this item shall include full compensation for all labor, equipment, material, and incidental work associated with the installation of cast in place concrete steps, landing and handrails at #237 East Main Street as shown in the Contract Documents.
 - b. Work included in payment also includes but is not limited to removal of surplus material, lines and grades, maintenance and protection of surrounding lawn area, clean-up, protect and support existing utilities.
 - c. Payment shall be measured within the payment limits which are indicated on the site plans and details.
3. Related work:
03 3000-Cast-in Place Concrete
05 5213-Pipe and Tube Railing

Bid Item 051: Replace Topsoil, Seed, Mulch and Restoration

1. Unit: Square Foot
2. Description:
 - a. Payment for this item shall include full compensation for all labor, equipment, material, and incidental work associated with the restoration of cultivated lawn and uncultivated areas to the quality and standards explicitly described in the specifications.
 - b. Work includes but is not limited to layout and installation to lines and grades, protection and support of existing facilities, screening of topsoil, importing of topsoil, placing, grading, seed, fertilizer, lime, and mulch over the entire width and length of disturbed cultivated areas, replacement/repair of all natural and artificial existing features either damaged or disturbed as a result of contractor activities, erosion and sediment control, topsoil testing and analysis, and seed/mulch of uncultivated areas where required.

Burlington Street Reconstruction Project
City of Watertown

- c. Payment shall be measured as the square footage indicated within the payment limits which are indicated on the site plans and details. Additional payment will not be made for the restoration of areas disturbed by the contractor that are beyond the project limits.
3. Related work:
- 31 1000-Grading
 - 31 2316.13-Trenching
 - 32 9219-Seeding

Bid Item 52: Rock Removal Allowance for Trench Excavation

Unit: Cubic Yard

1. Description:
- a. Payment for this item shall include full compensation for all labor, equipment, material, and incidental work associated with the removal of rock not specifically covered under other pay items. Bedrock discovered during excavation must be identified as rock as described in the contract documents to be eligible for Rock Removal. Contractor shall be required to use mechanical methods or specialty equipment (hoe ram) to remove the rock at a productive rate. Payment of rock excavation will not be considered for the removal of small rocks, shale, masonry, or concrete. All excavation, besides rock excavation, is covered under other pay items, therefore no additional payment will be made for any other types of excavation or trenching, or incidental work associated with excavation.
 - b. Work included in payment also includes but is not limited to methods to remove the rock to lines and grades, rock hauling and disposal, maintenance and protection of traffic, support and protection of existing facilities, maintaining access to private property, dust control, and cleanup.
 - c. Payment shall be measured within the trench/rock excavation limits which are indicated.
 - d. Unutilized Rock Removal Allowance money will be credited back by over/under change order at substantial completion, similar to all unit price bid items.
2. Related work:
- 31 2316.13-Trenching
 - 31 2316.26-Rock Removal

Bid Item 053: Field Allowance (Lump Sum Allowance, \$40,000)

1. Unit: Allowance
2. Description:
- a. Payment for this item shall include full compensation for all labor, equipment, material, and incidentals for necessary additional work performed by Contractor, such as an unforeseen condition, a constructability issue, or additional work otherwise not addressed by the contract documents.
 - b. Inclusive of necessary work as determined in the field during construction.
 - c. Additional Work to be deemed necessary by the Engineer or Owner's representative prior to the Contractor performing the additional work.

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Contractor may be requested to submit a Field Change Order with an itemized cost breakdown of additional labor, equipment, and material prior to commencing additional work. Contractor may be requested to complete work on a time and material basis

- d. Unutilized Field Allowance money will be credited back by over/under change order at substantial completion, similar to all unit price bid items.
3. Related Work: Work unrelated to other Bid Items.

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CITY OF WATERTOWN, NEW YORK

CITY HALL
245 WASHINGTON STREET
WATERTOWN, NEW YORK 13601-3380

INSURANCE AND BONDING INFORMATION

Bid #: _____ Bid Title: _____

Contract Amount: \$ _____ Contractor: _____

Performance, Payment, and other Bonds

The awarded Contractor, if required, shall furnish Performance and Payment Bonds, each in an amount of at least equal to the Contract Price as security for the faithful performance and payment of all Contractor's obligations under the Contract Document. These Bonds shall remain in effect as a warranty for a minimum of one year after the date when the final payment becomes due, except as provided otherwise by Laws or Regulations or by the Contract Documents.

All Bonds shall be in the form prescribed by the Contract Documents except as provided otherwise by Laws or Regulations and shall be executed by such sureties as are named in the current list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (as amended) by the U.S. Treasury Department. All Bonds signed by an agent must be accompanied by a certified copy of such agent's authority to act.

If the surety on any Bond furnished by the Contractor files a petition in bankruptcy, becomes insolvent, is reasonably likely to become insolvent in the near future, or its right to do business is terminated in any state where any part of the Project is located, or it ceases to meet the requirements, the Contractor shall within twenty (20) days thereafter substitute another bond and surety, both of which must be acceptable to the City of Watertown.

All Bonds and insurance required by the Contract documents to be purchased and maintained by the City or the Contractor shall be obtained from surety or insurance companies that are duly licensed or authorized in the jurisdiction in which the Project is located to issue Bond or insurance policies for the limits and coverages required.

Bid Bond

[x] If this box is checked, the bid must be accompanied by a Bid Bond in the penal amount of 5% of the maximum amount of the bid price, or in lieu thereof, a deposit of cash or a certified check payable to the City of Watertown, in an amount equal to 5% of the maximum amount of the bid to assure the City of the adherence of the bidder to his bid and the execution of the Contract. Within ten (10) days after the opening of the bids, the deposits of all but three (3) lowest bidders who comply with these specifications will be returned. Within ten (10) days after the execution of the Contract and acceptance of the bidders performance bonds by the City, the deposit of the successful bidder will be returned. If no contract has been executed within 45 days after the date of opening of bids, upon demand of the bidder so long as it has not been notified of the acceptance of his or her bid. If a bidder agrees to hold their bid open for a period greater than 45 days, at the request of the City, the bid security shall be held over as well.

Performance Bond

[X] If this box is checked, successful proposer will be required to provide a performance bond in the amount of 100% of guaranteed minimum contract price within two (2) weeks of notification of award. If the proposer to whom the Contract is awarded refuses or neglects to execute or failed to furnish the 100% performance bond within two (2) weeks after notice to him of the award, the amount of his deposit may be forfeited and shall be retained by the City as liquidated damages.

Payment Bond

[X] If this box is checked, successful proposer will be required to provide a payment bond in the amount of 100% of guaranteed minimum contract price within two (2) weeks of notification of award. If the proposer to whom the Contract is awarded refuses or neglects to execute or failed to furnish the 100% performance bond within two (2) weeks after notice to him of the award, the amount of his deposit may be forfeited and shall be retained by the City as liquidated damages.

Insurances

The City of Watertown is self-insured, and therefore relies upon the additional named insured status, provided by the Contractor, for a defense and indemnification of claims arising from the project.

The City of Watertown and the City Engineer, both officially and personally, shall be included as insureds on the Contractor’s CGL, using ISO Additional Insured Endorsement CG20 10 11 85 or an endorsement providing equivalent coverage to the additional insureds and on the Contractor’s commercial umbrella liability policy. The CGL insurance for the additional insureds shall be as broad as the coverage provided for the named insured Contractor. It shall apply as primary and noncontributing insurance before any insurance maintained by the additional insureds. Additional insured status shall also be made applicable to Products/Completed Operations Coverage. The additional insured status provided by the Contractor’s policies of insurance, including umbrella insurance, shall not be limited to vicarious liability issues only. The Certificates of Insurance for additional insureds must identify the existence of additional insured status. The Certificates of Insurance should state for example “The Certificate holder shall be an additional insured as required by the Contract between the named insured and the City of Watertown by Contract dated _____.”

The Contractor shall save and hold the City harmless from and against all liability, claims and demands on account of personal injuries, bodily injuries and death (including without limitation of the foregoing Worker’s Compensation) or property loss or damage of any kind whatsoever, which arise out of or are in any manner connected with, or are claimed to arise out of or be in any manner connected with , their performance of this contract, regardless of whether such injury, loss or damage shall be caused by, or claim to be caused by, the negligence or other fault of the contractor, or of the sub-contractor, or of the City or of some other person; or by any agents or employees of any of the forgoing; or by accident; or otherwise.

The Contractor/Vendor shall not commence work under this Contract until he/she has obtained all insurance and bonding required under this section and such insurances have been filed and approved with the City, nor shall the Contractor/Vendor allow any sub-contractor to commence work on his sub-contract until such sub-contractor has been approved by the City and all similar insurance required of the sub-contractor has been so obtained and approved. The required insurance coverage is as follows:

Workers' Compensation (WC) Insurance and Disability Benefits (DB) Insurance

[x] If this box is checked, the Contractor shall take out and maintain during the life of this Agreement, Workers' Compensation (WC) Insurance and Disability Benefits (DB) Insurance, for all of its employees employed at the site of the project, and shall provide to the City of Watertown Certificates of Insurance evidencing this coverage. **If the Vendor is not required to carry such insurance, the Vendor must submit form CE-200 attesting to the fact that it is not required to do so.**

WORKERS' COMPENSATION REQUIREMENTS: To assist the State of New York and municipal entities in enforcing WCL Section 57, a business entity (the Vendor) seeking to enter into contracts with municipalities (the City of Watertown) **MUST** provide ONE of the following forms to the municipal entity (the City of Watertown) it is entering into a contract with:

- a. **IF THE VENDOR IS REQUIRED TO CARRY COVERAGE AND HAS AN OUTSIDE CARRIER, submit Form C-105.2, "Certificate of Workers' Compensation Insurance." The VENDOR'S insurance carrier will send this form to the CITY at VENDOR'S request. PLEASE NOTE: The State Insurance Fund provides its own version of this Form (the U-26.3).**
- b. **IF THE VENDOR IS REQUIRED TO CARRY COVERAGE AND IS SELF INSURED, submit Form SI-12, "Certificate of Workers' Compensation Self-Insurance." The VENDOR'S Group Self-Insurance Administrator will send this form to the CITY at the VENDOR'S request.**
- c. **IF THE VENDOR IS NOT REQUIRED TO CARRY COVERAGE, submit Form CE-200, "Certificate of Attestation of Exemption from New York State Workers' Compensation and/or Disability Benefits Insurance Coverage." This form and the instructions for completing it are available from the link below.**

DISABILITY BENEFITS REQUIREMENTS: To assist the State of New York and municipal entities (the City of Watertown) in enforcing WCL Section 220(8), business entities (the Vendor) seeking to enter into contract with municipalities (the City of Watertown) **MUST** provide ONE of the following forms to the municipal entity (the City of Watertown) it is entering into a contract with:

- a. **IF THE VENDOR IS REQUIRED TO CARRY COVERAGE AND HAS AN OUTSIDE CARRIER, submit Form DB-120.1, "Certificate of Disability Benefits Insurance." The Vendor's insurance carrier will send this form to the City of Watertown at the Vendor's request.**
- b. **IF THE VENDOR IS REQUIRED TO CARRY COVERAGE AND IS SELF INSURED, submit Form DB-155, "Certificate of Disability Self-insurance." The Vendor must call the Workers Comp. Board's Self-Insurance Office at (518) 402-0247.**
- c. **IF THE VENDOR IS NOT REQUIRED TO CARRY COVERAGE, submit Form CE-200, "Certificate of Attestation of Exemption from New York State Workers' Compensation and/or Disability Benefits Insurance Coverage." This form and the instructions for completing it are available from the link below.**

Form CE-200 and the instructions for completing the application and obtaining the form are available on the New York State Workers' Compensation Board's website, www.wcb.state.ny.us, under the heading "Common Forms." Business entities without access to a computer may obtain a paper application for the

CE-200 by writing or visiting the Customer Service Center at any District Office of the Workers' Compensation Board. However, business entities using the manual process may wait up to four (4) weeks before receiving a CE-200. **Employees of the Workers' Compensation Board cannot assist business entities in answering questions about this form. Please contact an attorney if you have any questions regarding Form CE-200. However, if you have questions regarding workers' compensation coverage requirements, please call the Bureau of Compliance at (866) 546-9322.**

***NOTE: ACORD forms are NOT acceptable proof of New York State Workers' Compensation or Disability Benefits Insurance Coverage. The manner of proof related to Workers' Compensation and Disability Insurance is controlled by New York State Laws, Rules and Regulations.**

COMMERCIAL GENERAL LIABILITY INSURANCE

[x] If this box is checked, the Contractor shall take out and maintain during the life of this Agreement, such bodily injury liability and property damage liability insurance as shall protect it and the City of Watertown from claims for damages for bodily injury including accidental death, as well as from claims for property damage that may arise from operations under this Agreement, whether such operations be by the Contractor, by any subcontractor, or by anyone directly or indirectly employed by either of them. It shall be the responsibility of the Contractor to maintain such insurance in amounts sufficient to fully protect itself and the City of Watertown, but in no instance shall amounts be less than those set forth below. The amounts set forth below establish the minimum acceptable levels of coverage.

- Bodily Injury and Property Damage Liability Insurance in an amount not less than \$1,000,000.00 for each occurrence and in an amount not less than \$2,000,000.00 general aggregate.
- \$2,000,000.00 Products/Completed Operations
- \$1,000,000.00 Advertising/Personal Injury

UMBRELLA EXCESS LIABILITY INSURANCE

[x] If this box is checked, Umbrella Excess Liability Insurance in the amount of \$5,000,000.00 each occurrence, \$5,000,000.00 aggregate shall be provided by the Vendor.

OWNERS AND CONTRACTORS PROTECTIVE LIABILITY COVERAGE

[x] If this box is checked, Owners and Contractors Protective (OCP) Liability coverage with limits of insurance of not less than that provided by the Contractor's Commercial general liability coverage.

EMPLOYER'S LIABILITY INSURANCE

[x] If this box is checked, Employer's Liability (EL) with limits of insurance of not less than \$500,000 each accident for bodily injury by accident and \$500,000 each employee for injury by disease. The policy shall include an All States coverage endorsement. Where applicable, the U.S. Longshore and Harbor workers Compensation Act Endorsement shall be attached to the policy. Where applicable, the Maritime Coverage Endorsement shall be attached to the policy. Where applicable, the Stop Gap Endorsement shall be attached to the policy.

No Labor Law Exclusion shall be allowed on any General Liability Policy.

BUILDER’S RISK INSURANCE

[x] If this box is checked, Builder’s Risk Insurance shall be carried by Contractor for the full contract price.

AUTOMOBILE LIABILITY INSURANCE:

[x] If this box is checked, Automobile Bodily Injury Liability and Property Damage Liability Insurance shall be provided by the Vendor with a minimum Combined Single Limit (CSL) of \$1,000,000.00. AL coverage must include coverage for liability arising out of all owned, leased, hired and non-owned automobiles.

The City and City Engineer, both officially and personally, shall be included as additional insureds on the Contractor’s AL policy. The AL coverage for the additional insured shall apply before any insurance maintained by the additional insureds.

OTHER CONDITIONS OF AUTOMOBILE LIABILITY INSURANCE:

1. Coverage shall include:
 - A. All owned vehicles
 - B. Hired car and non-ownership liability coverage
 - C. Statutory No-Fault coverage

POLLUTION LIABILITY INSURANCE

[x] If this box is checked, Pollution Liability Insurance shall be provided by the Vendor with a minimum coverage of \$1million dollars each occurrence, \$2 million dollars aggregate.

PROFESSIONAL LIABILITY INSURANCE (e.g. MALPRACTICE INSURANCE)

[] If this box is checked, Professional Liability Insurance shall be provided by the Vendor as follows: Professional Liability Insurance in an amount not less than 1,000,000.00 per occurrence, \$3,000,000.00 aggregate.

PRODUCT LIABILITY INSURANCE

[] If this box is checked, each manufacturer will furnish an original certificate of product liability insurance for a minimum of twenty-five (\$25,000,000.00) million dollars from the prime builder. Certificates of Liability submitted from subcontractors in order to total the twenty-five million dollar minimum will not be acceptable as meeting the requirements of this section.

WAIVER OF SUBROGATION

The Contractor waives all rights against the City and City Engineer and their agents, officers, directors and employees for recovery of damages to the extent these damages are covered by the CGL, UL, or WC insurance maintained per the requirements set forth above.

ADDITIONAL CONDITIONS OF INSURANCE:

1. The Vendor shall submit copies of any or all required insurance policies as and when requested by the City. All insurance policies shall meet the requirements this section and any requirement within the Standard General Conditions or Supplemental Conditions.

CERTIFICATE OF INSURANCE:

The Contractor shall submit certificate of insurance to the City of Watertown Purchasing Department, prior to commencing work under the Agreement.

1. The Certificate of Insurance shall include, but not limited to:
 - A. Name and address of Insured
 - B. Issue date of certificate
 - C. Insurance company name
 - D. Type of coverage in effect
 - E. Policy number
 - F. Inception and expiration dates of policies included on the certificate
 - G. Limits of liability for all policies included on the certificate
 - H. “Additional Issured” shall be the City of Watertown, 245 Washington Street, Watertown, NY 13601 and Aubertine and Currier Architects, Engineers & Land Surveyors, PLLC, 522 Bradley Street, Watertown, NY, 13601.

NON-COLLUSIVE BIDDING CERTIFICATION

On acceptance of this proposal for said work, the undersigned does or do hereby bind himself or themselves to enter into written contract within ten (10) days of the date of notice of award with said City Council of the City of Watertown, New York, and will commence work immediately and shall substantially complete the work within the time period required.

This bid includes changes in plans and specifications as established by all addenda issued and acknowledged. All addenda shall be deemed issued and acknowledged when a true copy of the same is deposited in the U. S. Post Office, Watertown, New York, securely enclosed in a post paid wrapper directed to a bidder at the address designated by him, certified mail, return receipt requested, and such receipt is returned signed by said bidder or by one on his behalf to the City Engineer.

In case of discrepancy between prices written in words and prices written in numbers, the price written in words shall govern.

NON-COLLUSIVE BIDDING CERTIFICATIONS

By submission of this bid, each bidder and each person signing on behalf of any bidder certifies and, in case of a joint bid, each party thereto verifies as to its own organization, under penalty or perjury, that to the best of his 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 with 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.

Section 103-d of the General Municipal Law, as amended by Chapter 675 L 1966, in addition to requiring the above certification, provides as follows:

A bid shall not be considered for award nor shall any award be made where 1, 2, and 3 above have not been complied with provided, however, that if in any case the bidder cannot make the foregoing certification, the bidder shall so state and furnish with the bid a signed statement which sets forth in detail the reasons. Where 1, 2, and 3 above have not been complied with, the bid shall not be considered for award nor shall any award be made unless the head of the purchasing unit of the political subdivision, public department, agency or official thereof to which the bid is made, or his designee, determines that such disclosure was not made for the purpose of restricting competition.

Burlington Street Reconstruction Project
City of Watertown

The fact that a bidder (a) has published price lists, rates or tariffs covering items being procured, (b) has informed prospective customers of proposed or pending publication of new or revised price lists for such items, or (c) has sold the same items to other customers at the same prices being bid, does not constitute, without more, a disclosure within the meaning of subparagraph one.

Any bid hereafter made to any political subdivision of the State or any public department, agency or official thereof by a corporate bidder for work or services performed, or to be performed, or goods sold, or to be sold, where competitive bidding is required by statute, rule, regulation, or local law, and where such bid contains the certification referred to in subdivision one of this section, shall be deemed to have been authorized by the Board of Directors of the bidder, and such authorization shall be deemed to include the signing and submission of the bid and the inclusion therein of the certificate as to non- collusion as the act and deed of the corporation.

DATED:

BIDDER:

Name of Business or Corporation

Street

City and State

Telephone Number

Authorized Signature and Title

Witness, Name

Witness, Signature

SEXUAL HARASSMENT PREVENTION FORM

Certification of Sexual Harassment Prevention in the Workplace Policy
And Annual Sexual Harassment Prevention Training of All Employees
Pursuant to NYS Finance Law 3139-1

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 Two Hundred One-g of the Labor Law (NY Labor Law §201-g).

A bid shall not be considered for award nor shall any award be made to a bidder who has not complied with the certification requirement of NYS Finance Law §139-1(1); provided, however, that if the bidder cannot make the foregoing certification, such bidder shall so state and shall furnish with the bid a signed statement which sets forth in detail the reasons therefore.

Any bid hereafter made by a corporate bidder for work or services performed or to be performed or goods sold or to be sold, where such bid contains the statement required by NYS Finance Law §139-1(1), shall be deemed to have been authorized by the board of directors of such bidder, and such authorization shall be deemed to include the signing and submission of such bid and the inclusion therein of such statement as the act and deed of the corporation

Certified under penalty of perjury:

Signature: _____

Print Name: _____

Title: _____

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IRAN DIVESTMENT ACT

CITY OF WATERTOWN, NEW YORK

ROOM 206, CITY HALL
245 WASHINGTON STREET
WATERTOWN, NEW YORK 13601-3380

E-MAIL: tbartlettbearup@watertown-ny.gov
☎(315) 785-7749 📠(315) 782-9014

Tina Bartlett-Bearup
Purchasing Manager

As a result of the Iran Divestment Act of 2012 (the “Act”), Chapter 1 of the 2012 Laws of New York, a new provision has been added to State Finance Law (SFL) § 165-a and New York General Municipal Law § 103-g, both effective April 12, 2012. Under the Act, the Commissioner of the Office of General Services (OGS) will be developing a list of “persons” who are engaged in “investment activities in Iran” (both are defined terms in the law) (the “Prohibited Entities List”). Pursuant to SFL § 165-a(3)(b), the initial list is expected to be issued no later than 120 days after the Act’s effective date at which time it will be posted on the OGS website.

By submitting a bid in response to this solicitation or by assuming the responsibility of a Contract awarded hereunder, each Bidder/Contractor, any person signing on behalf of any Bidder/Contractor and any assignee or subcontractor and, in the case of a joint bid, each party thereto, certifies, under penalty of perjury, that once the Prohibited Entities List is posted on the OGS website, to the best of its knowledge and belief, each Bidder/Contractor and any subcontractor or assignee is not identified on the Prohibited Entities List created pursuant to SFL § 165-a(3)(b).

Additionally, Bidder/Contractor is advised that once the Prohibited Entities List is posted on the OGS Website, any Bidder/Contractor seeking to renew or extend a Contract or assume the responsibility of a Contract awarded in response to this solicitation must certify at the time the Contract is renewed, extended or assigned that it is not included on the Prohibited Entities List.

During the term of the Contract, should the City receive information that a Bidder/Contractor is in violation of the above-referenced certification, the City 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 City shall take such action as may be appropriate including, but not limited to, imposing sanctions, seeking compliance, recovering damages or declaring the Bidder/Contractor in default.

The City reserves the right to reject any bid or request for assignment for a Bidder/Contractor 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/Contractor that is awarded a contract and subsequently appears on the Prohibited Entities List.

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

Corporation and that neither the Bidder/Contractor nor any proposed subcontractor is identified on the Prohibited Entities List.

SIGNED

SWORN to before me this _____ day of _____ 2025

Notary Public: _____

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CONTRACTOR'S QUALIFICATIONS STATEMENT FORM

To induce the making of this Contract, the Contractor represents to the Owner the following as evidence of Contractor's qualifications to perform the work herein specified:

1. How many years has your organization been in business under the name in which you propose to execute this contract? _____ Years
2. What projects of character similar to that proposed has your present organization completed? Give the information indicated by the following tabulations:

Name and Address of Owner for Whom Work was Done	Description of Work	Approximate amount of Contract	Approximate Date Work Was Done
--	---------------------	--------------------------------	--------------------------------

3. Has your present organization ever failed to complete any work awarded to it?
If so, state when, where and why.

4. Do you have, or can you procure the necessary personnel, equipment, facilities and financial resources to immediately undertake and satisfactorily complete the work contemplated in this contract? _____

Witnessed By

Signature of Contractor

Dated _____

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APPENDIX A

HUD Section 3 Policies and Procedures



City of Watertown

Planning and Community Development Department

Section 3 of the Housing and Urban Development

Act of 1968

Policy and Procedures

24 CFR Part 75

Version	Date	Summary of Changes
1.0	02/01/2023	Initial Document
2.0	02/24/2023	Update to Contracting Procedures
3.0	3/1/2024	Update to Qualitative Efforts

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Introduction

A. What is Section 3?

Section 3 is a provision of the Housing and Urban Development Act of 1968 (12 U.S.C. 1701u) that is regulated by the provisions of 24 CFR 75. Section 3 regulations ensure that employment and other economic opportunities generated by certain HUD financial assistance shall, to the greatest extent feasible, and consistent with existing Federal, State, and local laws and regulations, be directed to low- and very low-income persons, particularly those who are recipients of government assistance for housing, and to business concern which provide economic opportunities to low- and very low-income persons.

The goal of Section 3 benefits and dollars spent are staying local to help foster economic development, neighborhood economic development, and individual self-sufficiency. Improving the lives of the target recipients, low and very low-income persons, and creating opportunities for jobs, for training, and possible business ownership helps people work their way out of poverty.

B. Purpose of This Document

This Section 3 Policy and Procedures document outlines how the City of Watertown (herein referred to as the “City”) and its subrecipients, contractors and subcontractors will comply with HUD’s Section 3 requirements in implementing the City’s HUD funded programs. The City will, to the greatest extent feasible, ensure that employment and other economic opportunities are directed to low- and very low-income persons (Section 3 workers and Targeted Section 3 workers) and to eligible businesses (Section 3 Businesses) and requires the same of its subrecipients and contractors.

The City may amend its Section 3 Policies and Procedures document as necessary to ensure continued compliance with HUD’s requirements and/or to reflect updated Section 3 guidance and outreach strategies.

C. 24 CFR Part 75 Amendments and Conflicts

Amendments to 24 CFR Part 75 shall apply to this Policy as of the effective date of the updated regulation. Where provisions of this Policy conflict with 24 CFR Part 75, the latter shall prevail.

D. Section 3 Coordinator

The City will designate a Section 3 Coordinator to serve as the central point of contact for Section 3 compliance. Subrecipients and contractors are encouraged to reach out to that individual with any questions or requests for guidance regarding Section 3 compliance.

Sharlice Bonello, Planner

245 Washington Street, Room 305, Watertown, NY 13601

(315) 785-7741 sbonello@watertown-ny.gov

2. Applicability

A. Section 3 Projects (Housing and Community Development Financial Assistance)

- i. For Housing and Community Development Financial Assistance, this plan applies to housing rehabilitation, housing construction, and other public construction projects assisted under HUD programs when the total amount of assistance to the project exceeds threshold \$200,000. Applicability is determined at the project level.
- ii. For projects funded with Lead Hazard Control and Healthy Homes Programs, this applies to projects that exceed \$100,000.
- iii. The requirements in this part apply to an entire Section 3 project, regardless of whether the project is fully or partially assisted under HUD programs that provide Housing and Community Development Financial Assistance
- iv. This plan also applies to projects that have multiple funding sources. Multiple funding source projects include projects that include Public Housing Financial Assistance, Housing and Community Development Financial Assistance for single or multiple recipients, and the Lead Hazard Control and Healthy Homes Program.

B. Contract for Materials

Section 3 requirements do not apply to material supply contracts.

3. Section 3 Requirements and Benchmarks

A. Prioritization of Effort in Employment, Training, and Contracting

To the greatest extent feasible, employment and training opportunities should be provided to Section 3 workers in the metropolitan area and contracting opportunities shall be provided to Section 3 businesses that provide economic opportunities to Section 3 workers in the metropolitan area.

Subrecipients, contractors, and subcontractors will be required to certify that they will and have made best efforts to follow the order of prioritization prior to beginning work and after work is completed as listed below:

Employment and Training

Where feasible, priority of opportunity and training should be given to:

- i. Section 3 workers residing within the service area or neighborhood of the project, and
- ii. Participants in YouthBuild programs.

Contracting

Where feasible, priority for contracting opportunities should be given to:

- i. Section 3 business concerns that provide economic opportunities to Section 3 workers residing within the service area or neighborhood of the project, and
- ii. YouthBuild programs.

B. Safe Harbor Benchmarks

HUD has established employment and training goals that subrecipients, contractors, and subcontractors should meet in order to comply with Section 3 requirements outlined in 24 CFR Part 75.19 for Housing and Community Development Financial Assistance. The safe harbor benchmark goals are as follows:

- i. Twenty-five (25) percent or more of the total number of labor hours worked by all workers on a Section 3 project are Section 3 workers, and

$$25\% = \frac{\textit{Section 3 Labor Hours}}{\textit{Total Labor Hours}}$$

- ii. Five (5) percent or more of the total number of labor hours worked by all workers on the Section 3 project are Targeted Section 3 workers, as defined at 24 CFR Part 75.21.

$$5\% = \frac{\textit{Targeted Section 3 Labor Hours}}{\textit{Total Labor Hours}}$$

HUD establishes and updates the benchmarks for Section 3 and Targeted Section 3 workers at least once every 3 years through a document published in the Federal Register. This policy will be revised as needed to include updated benchmarks.

It is the responsibility of subrecipients, contractors, and subcontractors to implement efforts to achieve Section 3 compliance. Any subrecipients, contractors, and subcontractors that does not meet the Section 3 benchmarks must demonstrate why meeting the benchmarks were not feasible. All contractors submitting bids or proposals to the City are required to certify that they will comply with the requirements of Section 3. Contractors are also required to have subcontractors certify they will comply with the requirements of Section 3.

C. Safe Harbor Compliance

Subrecipients, contractors, and subcontractors will be considered to have complied with Section 3 requirements and met safe harbor, if they certify that they followed the required prioritization of effort and met or exceeded the Section 3 benchmarks, absent evidence of the contrary.

Prior to the beginning of work, contractors and subcontractors are required to certify that they will follow the required prioritization of effort for Section 3 workers, Targeted Section 3 workers, and Section 3 business concerns as outline above in Section A. After completion of the project, on the Section 3 Compliance Report, subrecipients, contractors, and subcontractors will be required to certify that they followed the prioritization of efforts requirements.

Some ways to certify that prioritization of efforts was met is by (refer to Appendix C for example flyer and language that should be included):

-
- i. Providing flyers to YouthBuild Programs of current job, training, and apprenticeship opportunities.
 - ii. Provide flyers in apartment buildings within one mile of the service area.

Flyers can be provided to the following locations within the 1-mile of the service area:

- i. Midtown Towers
- ii. Maywood Terrace
- iii. Hilltop Towers
- iv. Skyline Apartments
- v. Leray Street Apartment

If the contractor and subcontractor do not meet the safe harbor requirements, they must provide evidence that they have made qualitative efforts to assist low- and very low-income persons with employment and training opportunities (refer to the section below).

4. Qualitative Efforts

In accordance with 24 CFR 75.25, subrecipients and contractors must engage in qualitative efforts to satisfy the Section 3 benchmarks and provide economic opportunities to Section 3 workers and business concerns. Documentation must be provided to serve as evidence for completing qualitative efforts. Examples of such efforts may include, but not limited to the following:

Applicant Outreach:

- i. Engage in outreach efforts to generate job applicants that are Section 3 and Targeted Section 3 workers, including posting job openings at the job site, social media pages, The WorkPlace, and other platforms.
- ii. Clearly indicate Section 3 eligibility on all postings, notifications, and advertisements with the following statement: “This is a Section 3 eligible job opportunity. We encourage applications from individuals that are low-income, live in public housing, a YouthBuild participant, live within 1 mile of the worksite, and/or receive Section 8 voucher.”
- iii. Include the Section 3 Worker Self-Certification form in all job postings.

On-Stop / YouthBuild Outreach:

- iv. Engage in outreach or referrals with local YouthBuild programs or other community organizations to assist with training and recruiting Section 3 and Targeted Section 3 workers.
- v. Reach out to the JCC for potential Section 3 applicants.

Training and Apprenticeships:

- i. Provide training or apprenticeship opportunities.

Job Fairs:

- i. Hold or attend one or more job fairs.

-
- ii. Sponsor a job informational meeting in the Service Area / Neighborhood of the Project.

Business Concern Outreach:

- i. Engage in outreach effort to identify and secure bids from Section 3 businesses by advertising notices of contracting opportunities and related information in the local community papers/newspaper posting.
- ii. Provide written notice to all known Section 3 business concerns, with sufficient time for interested business to respond to bid invitations.
- iii. Send notice of contracting opportunities to local community development organizations, business development organizations, minority contracting associations, and/or veteran owned businesses that might also be Section 3 businesses.
- iv. State clearly in all notices that the contracting opportunity is Section 3 eligible and include a copy of the Section 3 Business Concern Certification form. The following statement can be added to the advertisement: “This is a Section 3 eligible job opportunity. We encourage applications from Section 3 businesses concerns.”

Competition Assistance:

- i. Provide technical assistance to help Section 3 business concerns understand and bid on contracts.

Contract Sizing:

- i. Divide contracts into smaller jobs to facilitate participation by Section 3 business concerns, particularly where economies of scale or efficiency of delivery are not factors. [2 CFR 200.321(b)(3)]

Bidder Viability Support:

- i. Provide bonding assistance, guaranties, or other efforts to support viable bids from Section 3 business concerns.

Business Registries:

- i. Promote use of business registries designed to create opportunities for disadvantaged and small businesses.

Employment Assistance:

- i. Provide technical assistance to help Section 3 workers compete for jobs, or connect them with assistance in seeking employment, including:
 - a. Resume assistance
 - b. Interview preparation
 - c. Coaching
 - d. Job placement services

Work Readiness and Retention:

-
- i. Provide or refer Section 3 workers to services supporting work readiness and retention, such as:
 - a. Interview clothing
 - b. Licensing or testing fees
 - c. Transportation
 - d. Childcare

Education Assistance:

1. Provide assistance to Section 3 workers to apply for or attend vocational or technical training.

5. Contracting Procedures

The City will utilize the following procedures during procurement and contracting involving HUD financial assistance to ensure the subrecipients, prime contractors, and subcontractors are aware of and prepared to comply with applicable Section 3 requirements.

A. Bids and Proposals

Pre-bid

- i. The section 3 Coordinator will provide information about Section 3 and answer any questions that bidders have.
- ii. A Section 3 Requirements, Acknowledgements, and Certification document will be provided with the bid specifications and must be submitted as part of a contractor's bid response. This document contains information about Section 3 requirements and serves as the bidder's or respondent's commitment and plan to meet the Section 3 benchmarks.

Bid/Offer/Proposal Submission

- i. At this point, a Section 3 Requirements, Acknowledgements, and Certification document will need to be submitted. Bidders and respondents that fail to submit a Section 3 Requirements, Acknowledgements, and Certification document may be deemed non-responsive and ineligible for contract award.
- ii. Additional items may be submitted such as pictures of previous work you have completed and references.

Contract Award/Prior to Execution

- i. Once the bidder or successful respondent has been identified, all identified subcontractors must also complete and submit a Section 3 Requirements, Acknowledgements, and Certification document and a Section 3 Plan.
- ii. The Section 3 Coordinator will review all Section 3 submissions for completeness and may request additional information or documentation as necessary.
- iii. The Section 3 Coordinator must receive all required documentation, including subcontractors' Section 3 Plans, before the contract can be executed.
- iv. Once the review is completed, the Section 3 Coordinator will complete a Section 3 Validation Contract Routing Form, (Exhibit B), to confirm that all required documentation has been received.

B. NOFOs and Subrecipient Agreements

All notices of funding opportunity for HUD Housing and Development Financial Assistance for housing construction, rehabilitation, or other public construction projects must contain Section 3 regulatory language and provisions. Each applicant must complete and submit a Section 3 Plan to the City with their application. Section 3 applicability is determined after the award amount and funding source are finalized. Subrecipients subject to Section 3 must submit all required documentation including Section 3 Plans for all identified prime contractors and subcontractors. The Section 3 Coordinator must receive and review all Section 3 documentation before the grant agreement is executed. Once the review is complete, the Section 3 Coordinator will complete a Section 3 Validation form, (Exhibit B), to confirm that all required documentation has been received.

For activities receiving funding from multiple sources, the City may coordinate Section 3 monitoring and enforcement with other agencies in accordance with 24 CFR 75 Subpart D, “Provisions for Multiple Funding Sources, Record Keeping, and Compliance.”

C. Contract Provisions

The City will include standard Section 3 language in all HUD-funded subrecipient agreements and contracts to ensure compliance with the regulations in 24 CFR Part 75.

Subrecipients and contractors are required to meet the requirements of 24 CFR Part 75, regardless of whether Section 3 language is included in subrecipient agreements, program regulatory agreements, or contracts.

6. Section 3 Eligibility, Certification, and Recordkeeping

Individuals and business that meet Section 3 criteria may seek Section 3 preference from the City or its contractors/subcontractors for training, employment, or contracting opportunities generated by the City’s HUD-funded programs. To qualify as a Section 3 worker, Targeted Section 3 worker, or Section 3 business concern, the City maintains and requires the submission of documentation certifying that they meet the applicable criteria. Individuals that have a prior arrest or conviction are **not excluded** from qualifying as a Section 3 worker, Targeted Section 3 worker, or a Section 3 business concern. For the purpose of determining Section 3 worker eligibility, the City will use individual income rather than family/household income. The income limits will be determined annually using the guidelines published online by HUD at:

<https://www.huduser.gov/portal/datasets/il.html>.

Businesses that misrepresent themselves as Section 3 business concerns or report false information to the City may have their contracts terminated as default and be barred from ongoing and future considerations for contracting opportunities.

A. Section 3 Worker

For an individual to qualify as a Section 3 worker, the City requires one of the following:

- i. A Section 3 Worker Self-Certification, (Exhibit C), from the individual certifying that their income for the previous or annualized calendar year is below the HUD income limit, or that they are a YouthBuild participant; or

-
- ii. A Section 3 Worker Employer Certification, (Exhibit D), from the employer certifying that currently, or when hired within the last 5 years, fit at least one of the following criteria below: (if hired before November 30, 2020, the employee needs to currently meet one of the following)
 - 1. The worker's income from that employer is below the income limit when based on a calculation of what the worker's wage rate would translate to if annualized on a full-time basis; or
 - 2. The worker is employed by a Section 3 business concern (please have business fill out Exhibit E); or
 - 3. The worker is a YouthBuild participant.

B. Targeted Section 3 Worker

For an individual to qualify as a Targeted Section 3 worker, the City requires one of the following:

- i. A Section 3 Business Certification, Exhibit E, to certify that the worker is employed by a Section 3 Business concern.
- ii. A Section 3 Worker Employer Certification, Exhibit D, from the employer certifying that currently, or when hired within the last five years, fit at least one of the following criteria below: (if hired before November 30, 2020, the employee needs to currently meet one of the following):
 - 1. A YouthBuild participant; or
 - 2. The worker's residence is currently, or was when hired within the past five years, within one mile of the worksite or, if fewer than 5,000 people live within one mile of a work site, within a circle centered on the work site that is sufficient to encompass a population of 5,000 people according to the most recent U.S. Census.

C. Section 3 Business Concerns

A business seeking designation as Section 3 business concern shall submit a Section 3 Business Certification, (Exhibit E), in order to be added to the City's list of certified Section 3 businesses. Businesses must meet one or more of the following criteria:

- i. At least 51% of the business is owned and controlled by low or very low-income persons; or
- ii. At least 51% of the business is owned and controlled by current public housing residents or residents who currently live in Section 8-assisted housing; or
- iii. Over 75% of the labor hours performed for the business over the prior three-month period are performed by Section 3 workers.

The City reserves the right, but is not obligated, to accept a business's Section 3 certification approved by another governmental entity, including such certifications provided by HUD.

Certification as a Section 3 business concern does not relieve contractors from their Section 3 obligations on covered projects, including the achievement of Section 3 benchmarks.

Businesses which are identified as Section 3 business concerns on covered projects may be

required to provide the City with an updated Section 3 Business Certification form, regardless of whether the business previously submitted this form or was determined eligible by the City.

D. Establishing Section 3 Status

Due to the New Rule, **do not look back prior to the effective date of November 30, 2020.**

Section 3 Business Concern Status	A Section 3 Worker Status
Businesses verify their status as a Section 3 business concern at the time the contract is awarded.	Workers are established as Section 3 workers or Targeted Section 3 workers at either the date of initial hire/contract or employee certification date.
Once verified, a Section 3 business concern maintains its Section 3 status for as long as it continues to meet the definition (24 CFR Part 75.5).	Established Section 3 Workers or Targeted Section 3 workers may count their labor hours for five years from the date used to establish their status.
Section 3 defers to local, state, and other federal rules and regulations (24 CFR Part 75.19)	Workers may re-establish their status as a Section 3 worker or Targeted Section 3 worker at the end of the five-year period.

E. Additional Documentation

The City reserves the right to request any additional documentation it deems necessary to verify Section 3 eligibility. All Section 3 workers, employers, and businesses submitting certification forms agree to provide such documentation to the City upon request.

7. Reporting

A. Section 3 Compliance Reports

Subrecipients and contractors are required to submit **Monthly Compliance Reports (Exhibit G)** and **Project End Reports (Exhibit H)**, as well as supporting documentation of their qualitative efforts and achievements. Monthly reports will be due on the 15th of each month for the preceding month, and the project end report will be due thirty (30) days after the project completion. Such documentation should include:

- i. Section 3 worker and Targeted Section 3 worker certification forms (as necessary)
- ii. Section 3 business concern certification forms (as necessary)
- iii. Certified payroll or time-and-attendance based reports (monthly and project end reports)
- iv. Documentation of qualitative efforts (monthly and project end reports)

B. Reporting of Labor Hours

Subrecipients and contractors are required to report the following [24 CFR 75.25(a)]:

- i. The total number of labor hours worked; and
- ii. The total number of labor hours worked by Section 3 workers; and
- iii. The total number of labor hours worked by Targeted Section 3 workers.

Section 3 workers and targeted Section 3 workers labor hours may be counted for five years from when their status as a Section 3 worker or Targeted Section 3 worker is established pursuant to 24 CFR 75.31.

The labor hours reported must include the total number of labor hours worked on a Section 3 project, including labor hours worked by any recipients and subrecipients, prime contractors and subcontractors, and owners. Labor hours **does not** include material supply contracts and vendors or professional service hours.

Subrecipients and contractors may report labor hours by Section 3 workers and labor hours by Targeted Section 3 workers from professional services without including labor hours from professional services in the total number of labor hours worked. Professional services are non-construction services that require an advanced degree or professional licensing, such as accounting, engineering, architects, and so on.

C. Additional Reporting if Benchmarks Are Not Met

If the safe harbor benchmarks are not met, subrecipients, contractors, and subcontractors must report on the nature of their efforts to meet the benchmarks, as well as any other activities or efforts aimed at increasing economic opportunities for Section 3 workers and business concerns. Refer to Section 4 labeled Qualitative Efforts.

8. Monitoring and Compliance

The City, via the Department of Planning and Community Development, will monitor contractors performance for compliance with Section 3 requirements throughout a covered project, in this case monthly, and at project end, including the compliance and review of Section 3 Compliance Reports and related supporting documentation.

Noncompliance with Section 3 by any business may be used to determine contractor responsibility and bid responsiveness on future contracting opportunities with the City. In addition, noncompliance may result in sanctions, debarment, suspension, or limited denial of future participation in HUD programs pursuant to 24 CFR Part 75.

9. Resources

A. General Information

The Section 3 implementing regulations on 24 CFR Part 75 can be found in the Electronic Code of Federal Regulations at <https://www.ecfr.gov/current/title-24/subtitle-A/part-75>

HUD publishes general information about Section 3 online at <https://www.hud.gov/section3>

Access to Section 3 FAQs, can be found at <https://www.hud.gov/sites/documents/11SECFAQS.PDF>

Current HUD Income Limits can be found at <https://www.huduser.gov/portal/datasets/il.html>

B. Forms

All City of Watertown compliance, certification, and reporting forms referenced in this policy are available online at: <https://www.watertown-ny.gov/CommunityDevelopmentBlockGrant>

C. Questions and Complaints

Questions or complaints regarding the City's Section 3 policy should be directed to the Section 3 Coordinator in the Planning and Community Development Department:

245 Washington St, Room 305,
Watertown, NY 13601
Sharlice, Bonello, Planner
sbonello@watertown-ny.gov

Consistent with 24 CFR Part 75.33, complaints alleging failure of compliance may be reported to the HUD program office responsible for the Section 3 project, or to the local HUD field office.

10. Sub-Appendices

Sub-Appendix 1: Definitions

- A. Contractor** means any entity entering into a contract with the City or one of its subrecipients to perform work in connection with a Section 3 project.
- B. Construction** means the creation of a new or replacement facility, the substantial rehabilitation of an existing facility, or the limited rehabilitation of an existing facility, this includes construction and/or rehabilitation of water and wastewater systems. The cost of acquiring new or replacement equipment may be included in the cost of construction.
- C. Housing and Community Development Financial Assistance** has the meaning described by HUD and includes, without limitation, the following sources of funding:
- i. Community Development Block Grant (CDBG)
 - ii. HOME Investment Partnership Program (HOME)
 - iii. National Disaster Resilience (NDR)
 - iv. Housing Opportunities for Persons with AIDS (HOPWA)
 - v. Emergency Solutions Grants (ESG)
 - vi. Neighborhood Stabilization Program (NSP)
 - vii. Lead Hazard Control Grants
 - viii. Healthy Homes Production Grants
 - ix. Disaster Recovery Grants
 - x. Economic Stimulus Funds
- D. HUD** means the United States Department of Housing and Urban Development.
- E. Labor hours** means the number of paid hours worked by persons on a Section 3 project or by persons employed with funds that include Public Housing Financial Assistance.
- F. Low-income persons** mean a person whose income does not exceed 80% of the area median income, as defined in Section 3 (b)(2) of the 1937 Act. Note that Section 3 worker eligibility uses individual income rather than family/household income.
- G. Material supply contracts** means contracts for the purchase of products and materials, including, but not limited to lumber, drywall, wiring, concrete, pipes, toilets, sinks, carpets, and office supplies.
- H. Metropolitan area** means a metropolitan statistical area (MSA) as established by the Office of Management and Budget. The City of Watertown is contained within the Watertown-Fort Drum MSA.

-
- I. Professional services** mean non-construction services that require an advanced degree or professional licensing, including, but not limited to, contracts for legal services, financial consulting, accounting services, environmental assessment, architectural services, and civil engineering services.
- J. Recipient** means any entity that receives directly from HUD Public Housing Financial Assistance or Housing and Community Development Assistance that funds Section 3 projects, including, but not limited to, and State, local government, instrumentality, PHA, or other public agency, public or private nonprofit organization.
- K. Section 3** means Section 3 of the Housing and Urban Development Act of 1968, as amended (12 U.S.C. 1701u).
- L. Section 3 business concern** means a business concern meeting at least one of the following criteria, documented within the last six-month period:
- i. It is at least 51% owned and controlled by low- or very low-income persons;
 - ii. Over 75% of the labor hours performed for the business over the prior three-month period are performed by Section 3 workers: or
 - iii. It is at least 51% owned and controlled by current public housing residents or residents who currently live in Section 8-assisted housing.
- M. Section 3 project** means any housing rehabilitation, housing construction, and other public construction project assisted under HUD programs that provide Housing and Community Development Financial Assistance when the total amount of assistance exceeds \$200,000. Further defined in 24 CFR Part 75.3 (a)(2).
- N. Section 3 worker** means any worker who currently fits or when hired within the past five years fit at least one of the following categories (if hired before November 30, 2020, the employee needs to currently meet one of the following):
- i. The worker's income for the previous or annualized calendar year is below the income limit established by HUD, based on where they reside.
 - ii. The worker is employed by a Section 3 business concern: or
 - iii. The worker is a YouthBuild participant.
- O. Service area or the neighborhood of the project** means an area within one mile of the Section 3 project or, if fewer than 5,000 people live within one mile of a Section 3 project, within a circle centered on the Section 3 project that is sufficient to encompass a population of 5,000 people according to the most recent U.S. Census.
- P. Subcontractor** means an entity that has a contractor to undertake a portion of the contractor's obligation to perform work in connection with a Section 3 project.
- Q. Subrecipient** means an entity that receives a subaward from the City of Watertown to carry out part of a Federal award but does not include an individual that is a beneficiary of the award.
- R. Targeted Section 3 worker** for Housing and Community Development Financial Assistance, as defined in 24 CFR 75.21, means a Section 3 worker who is:
- i. A worker employed by a Section 3 business concern: or
 - ii. A worker who currently fits or when hired within the past 5 years, fit at least one of the following categories (if hired before November 30, 2020, the employee needs to currently meet one of the following)
 1. Living within the service area or the neighborhood of the project, or

2. A YouthBuild participant.

- S. **Very low-income persons** mean a person whose income does not exceed 50 percent of the area median income, per the definition of this term set forth in Section 3 (b)(2) of the 1937 Act.
- T. **YouthBuild programs** refers to a community-based pre-apprenticeship program that provides job training and educational opportunities for at-risk youth aged 16-24 who have previously dropped out of high school. YouthBuild programs receiving assistance under the Workforce Innovation and Opportunity Act (29 U.S.C. 3226).

Sub-Appendix 2: Multiple Funding Sources for Housing and Community Development

Type of Financial Assistance	Definitions Targeted Section 3 Workers	Thresholds	Prioritization	Reporting
Multiple Sources of Housing and Community Development <i>(single or multiple recipients)</i>	Must follow subpart C of Part 75	Exceeds \$200,000 for Section 3 projects *LHCHHP exceeds \$100,000	Must follow subpart C of Part 75	Must follow subpart C of Part 75 Must report on project as a whole and identify the multiple associated recipients Must report to the applicable HUD Program office, as prescribed by HUD

Sub-Appendix 3: Example Flyer to Follow Prioritization of Efforts

Job Opening

Insert Apartment Building Name Here

We are looking for eligible Section 3 Workers, Targeted Section 3 Workers, and Section 3 Business Concerns. Prioritization will be given to eligible Section 3 Workers, Targeted Section 3 Workers, and Section 3 Business Concerns that live within one mile of the service area or neighborhood of the project. If you think that you are eligible, please visit the following link to access the Section 3 Worker Self-Certification form and Section 3 Business Concern Certification form: <https://www.watertown-ny.gov/CommunityDevelopmentBlockGrant>

Project:	Burlington Street Reconstruction Project
Anticipate Project Start and End Date:	XX, XX, XXXX
Job Openings:	XXX, XXX, XXX, XXX
Apprenticeships/Job Training Openings:	XXX, XXX, XXX, XXX
Business Name:	XXXX XXXX XXXXX
Phone Number:	(XXX) XXX-XXX
Email:	XXX@email.com

Please contact us for next steps. We look forward to hearing from you!

HUD SECTION 3 COMPLIANCE – CONTRACT CLAUSE FORM

- I. The work to be performed under this Contract is subject to the requirements of Section 3 of the Housing and Urban Development Act of 1968, as amended (12 USC §1701u) ("Section 3"). The purpose of Section 3 is to ensure that employment and other economic opportunities generated by HUD assistance or HUD-assisted developments covered by Section 3 shall, to the greatest extent feasible, be directed to low- and very low-income persons, including persons who are recipients of HUD assistance for housing, with a preference for both targeted workers living in the service area or neighborhood of the Development and YouthBuild participants, as defined at 24 CFR Part 75 ("Section 3 Regulations").
- II. The Parties agree to comply with HUD's regulations in Section 3 Regulations, which implement Section 3. As evidenced by their execution of this Contract, the Parties certify that they are under no contractual or other impediments that would prevent them from complying with the Section 3 Regulations.
- III. The subrecipient/contractor/subcontractor agrees to include this Section 3 clause in every contact/subcontract subject to compliance with regulations in Section 3 Regulations and agrees to take appropriate action, as provided in an applicable provision of the contact/subcontract in this Section 3 clause, upon a finding that the contractor/subcontractor violates the regulations in Section 3 Regulations. The subrecipient/contractor/subcontractor will not subcontract with any contractor/subcontractor where the subrecipient/contractor has notice or knowledge that the contractor/subcontractor has been found in violation of the regulations in Section 3 Regulations.
- IV. The subrecipient/contractor/subcontractor agrees to maintain hiring and contracting practices to the greatest extent feasible, and consistent with existing Federal state, and local laws and regulations, to award contracts and subcontracts to business concerns that provide economic opportunities to Section 3 Workers, in the following priority where feasible; to Section 3 Business Concerns that provide economic opportunities to Section 3 Workers residing in the service area or neighborhood of the Section 3 project, and to YouthBuild Programs.
- V. The subrecipient/contractor/subcontractor agrees to the greatest extent feasible to follow Safe Harbor benchmarks so that 25 percent of the total labor hours expended on the project are by Section 3 Workers, of which 5 percent are by Targeted Section 3 Workers as defined in 24 CFR part 75. As part of these practices, subrecipient/contractor/subcontractor agrees to provide priority consideration to eligible residents and businesses in accordance with 24 CFR Part 75, as applicable. If the subrecipient/contractor/subcontractor is not able to meet this benchmark goal, it must provide a narrative of efforts taken and supporting documentation explaining why it was unable to meet the goal, despite greatest extent feasible efforts taken. Qualitative efforts will then need to be submitted with supporting documentation.
- VI. The subrecipient/contractor/subcontractor will certify that any vacant employment positions, including training positions, shall be filled after a contractor is selected but before the Contract is executed.
- VII. The subrecipient/contractor/subcontractor agrees to send each labor organization or representative of workers with which the contractor has a collective bargaining agreement or other understanding, if any, a notice advising the labor organization or workers' representative of

Burlington Street Reconstruction Project
City of Watertown

the contractor's commitments under this Section 3 Clause, and will post copies of the notice in conspicuous places at the work site where both employees and applicants for job training and employment positions can see the notice. The notice shall describe the Section 3 preference and shall set forth the following: (1) job titles to hire; (2) availability of apprenticeship and training positions; (3) name and location of the applicant; (3) the anticipated date the work shall begin; and (4) personal/business contact information.

- VIII. The subrecipient/contractor/subcontractor agrees to obtain Section 3 Worker certification forms from (1) all existing employees that will or may work on the projects; and (2) from persons hired to work on the project.
- IX. The subrecipient/contractor/subcontractor agrees to provide written narrative regarding all efforts to comply with Section 3.
- X. The subrecipient/contractor/subcontractor agrees to maintain records documenting employees who qualified as Section 3 Workers that were hired to work on previous Section 3 projects that were retained by the subrecipient/contractor/subcontractor for subsequent Section 3 projects.
- XI. The subrecipient/contractor agrees to notify the contactor/subcontract that are associated with the Section 3 Projects about the Section 3 Requirements and include the Section 3 Clause in its entirety in every awarded contactor/subcontract.
- XII. The subrecipient/contractor/subcontractor agrees to comply with all monitoring, reporting, recordkeeping, and other procedures specified by United States Department of Housing and Urban Development (HUD). The subrecipient/contractor/subcontractor is responsible for providing Section 3 performance metrics and supporting documentation for all its subrecipients, contractors, and subcontractors, as applicable.
- XIII. Noncompliance with HUD's regulations in Section 3 Regulations may result in sanctions, termination of this Contract for default, and debarment or suspension from future HUD assisted contracts.
- XIV. The Section 3 Regulations are hereby incorporated into this Section 3 Clause, and to the extent there is any conflict between this Section 3 Clause and the Section 3 Regulations, the Section 3 Regulations shall control.

Certified under penalty of perjury:

Signature: _____

Print Name: _____

Title: _____

SUBCONTRACTORS AND SUPPLIERS

SUBCONTRACTOR/SUPPLIER BUSINESS, NAME AND TITLE OF SIGNER	SIGNATURE AND DATE
1. _____	_____
2. _____	_____
3. _____	_____
4. _____	_____
5. _____	_____
6. _____	_____
7. _____	_____
8. _____	_____
9. _____	_____
10. _____	_____

NOTE: The penalty for making false statements in offers is prescribed in 18 U.S.C. 1001.

WITHIN 2 DAYS AFTER THE OPENING OF BIDS AND BEFORE THE AWARD OF THE CONTRACT, ALL BIDDERS OR PROPOSERS WISHING TO REMAIN IN COMPETITION FOR THE CONTRACT SHALL SUBMIT THE ABOVE LIST.

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AGREEMENT

BURLINGTON STREET RECONSTRUCTION PROJECT

THIS CONTRACT, in (3) three copies, is made and entered into this _____ day of _____, 2025 by and between the City of Watertown, New York, (the “Owner”) and, State of New York, (the “Contractor”).

Witness: The Owner and the Contractor agree as follows:

Article 1. DESCRIPTION. The Contractor shall supply all labor, materials and equipment to perform the **BURLINGTON STREET RECONSTRUCTION PROJECT** as described in the Plans, Details, Specifications and Contract Documents.

Article 2. CONTRACTOR’S OBLIGATIONS. In consideration of the payments to be made as hereinafter provided, and of the performance by the Owner of all of the matters and things to be performed by the Owner, the Contractor agrees, at his own sole cost and expense, to perform all the labor and services and to furnish all the labor and materials, plant and equipment necessary to complete, and to complete in good, substantial workmanlike and approved manner, the work described under Article 1 hereof, within the time specified and in accordance with the terms, conditions and provisions of this Contract and with the instructions, orders and direction of the City Engineer made in accordance with this Contract.

Article 3. OWNER’S OBLIGATIONS. The Owner agrees to pay and the Contractor agrees to accept as full compensation for all work done, and materials furnished, and also for all costs and expenses incurred and loss or damages sustained by reason of the action of the elements, or growing out of the nature of the work, or from any unforeseen obstruction or difficulty encountered in the prosecution of the work, and for all risks of every description connected with the suspension or discontinuance of the work as herein specified, including any delay encountered in completing the work, and for faithfully completing the work, and the whole thereof, as herein provided, and for maintaining the work in good condition until the final payment is made, the prices stipulated in the Proposal of the Bid hereto attached as part of the Contract Documents in the total amount of \$ _____.

Article 4. CONTRACT DOCUMENTS. The following documents shall constitute the Agreement, the whole to be collectively known and referred to as the Contract: Plans, Details, Specifications and Contract Documents for **BURLINGTON STREET RECONSTRUCTION PROJECT** dated, _____, 2025; and all interpretations of or addenda to the Contract Documents issued by the Owner or its Engineer with the approval of the Owner. The Table of Contents, Headings and Titles contained herein and in the above listed documents are solely intended to facilitate reference to various provisions of the Contract Documents and in no way effect, limit or cast light on the interpretation of the provision to which they refer.

Article 5. REMEDY. If the Contractor fails to comply with any of the terms, conditions, provisions or stipulations of this Contract, according to the true intent and meaning thereof, then the Owner may make use of any or all remedies available to it under the Contract or at law.

Article 6. CODES AND REGULATIONS. The Contractor shall comply at all times with local City codes and New York State Department of Labor and OSHA Regulations.

Article 7. CONTRACT DURATION. The Work will be substantially completed within 182 days after the date when the Contract Times commence to run as provided in Article 4.01 of the General Conditions, taking place during the months of April 2025 and October 2025.

Article 8. LIQUIDATED DAMAGES. Contractor and Owner recognize that time is of the essence of this Agreement and that Owner will suffer financial loss if the Work is not completed within the times specified in Article 7 above, plus any extensions thereof allowed in accordance with Article 12 of the General Conditions. The parties also recognize the delays, expense, and difficulties involved in proving in a legal proceeding the actual loss suffered by Owner if the Work is not completed on time. Accordingly, instead of requiring any such proof, Owner and Contractor agree that as liquidated damages for delay (but not as a penalty), Contractor shall pay Owner \$1,000.00 for each day that expires after the time specified in Article 7 for Substantial Completion until the Work is substantially complete. After Substantial Completion, if Contractor shall neglect, refuse, or fail to complete the remaining Work within the Contract Time or any proper extension thereof granted by Owner, Contractor shall pay Owner \$250.00 for each day that expires after the time specified in Article 7 for completion and readiness for final payment until the Work is completed and ready for final payment.

Article 9. ACKNOWLEDGMENT OF ADDENDA. The following alterations and addenda have been made and included in this Contract before it was signed by the parties:

Addendum # _____ - [Date _____]
Addendum # _____ - [Date _____]
Addendum # _____ - [Date _____]
Addendum # _____ - [Date _____]

Article 10. RETAINAGE. In accordance with Article 15.01.B.5 of the General Conditions the amount of retainage with respect to progress payments shall be 5% of the total work completed and stored materials until all work is completed.

CITY OF WATERTOWN

IN WITNESS WHEREOF, the parties to this Agreement have hereunto set their hands and seals and have executed, in (3) three copies, the day and year first above written.

By: _____ (Seal)
City Manager

ACKNOWLEDGMENT

STATE OF ()
() SS:
COUNTY OF ()

On the _____ day of _____, 2025 before me, the undersigned, a Notary Public, in and for said State, personally appeared, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her capacity and that by his/her signature on the instrument, the individual or the person upon whose behalf the individual acted, executed the instrument.

Notary Public

CONTRACTOR

By: _____ (Seal)
ACKNOWLEDGMENT

STATE OF ()
() SS:
COUNTY OF ()

On the _____ day of _____, 2025 before me, the undersigned, a Notary Public, in and for said State, personally appeared, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her capacity and that by his/her signature on the instrument, the individual or the person upon whose behalf the individual acted, executed the instrument.

Notary Public

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STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

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STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

ARTICLE 1—DEFINITIONS AND TERMINOLOGY

1.01 *Defined Terms*

- A. Wherever used in the Bidding Requirements or Contract Documents, a term printed with initial capital letters, including the term's singular and plural forms, will have the meaning indicated in the definitions below. In addition to terms specifically defined, terms with initial capital letters in the Contract Documents include references to identified articles and paragraphs, and the titles of other documents or forms.
1. *Addenda*—Written or graphic instruments issued prior to the opening of Bids which clarify, correct, or change the Bidding Requirements or the proposed Contract Documents.
 2. *Agreement*—The written instrument, executed by Owner and Contractor, that sets forth the Contract Price and Contract Times, identifies the parties and the Engineer, and designates the specific items that are Contract Documents.
 3. *Application for Payment*—The document prepared by Contractor, in a form acceptable to Engineer, to request progress or final payments, and which is to be accompanied by such supporting documentation as is required by the Contract Documents.
 4. *Bid*—The offer of a Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.
 5. *Bidder*—An individual or entity that submits a Bid to Owner.
 6. *Bidding Documents*—The Bidding Requirements, the proposed Contract Documents, and all Addenda.
 7. *Bidding Requirements*—The Advertisement or invitation to bid, Instructions to Bidders, Bid Bond or other Bid security, if any, the Bid Form, and the Bid with any attachments.
 8. *Change Order*—A document which is signed by Contractor and Owner and authorizes an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the Contract Times, or other revision to the Contract, issued on or after the Effective Date of the Contract.
 9. *Change Proposal*—A written request by Contractor, duly submitted in compliance with the procedural requirements set forth herein, seeking an adjustment in Contract Price or Contract Times; contesting an initial decision by Engineer concerning the requirements of the Contract Documents or the acceptability of Work under the Contract Documents; challenging a set-off against payments due; or seeking other relief with respect to the terms of the Contract.
 10. *Claim*
 - a. A demand or assertion by Owner directly to Contractor, duly submitted in compliance with the procedural requirements set forth herein, seeking an adjustment of Contract Price or Contract Times; contesting an initial decision by Engineer concerning the

- requirements of the Contract Documents or the acceptability of Work under the Contract Documents; contesting Engineer's decision regarding a Change Proposal; seeking resolution of a contractual issue that Engineer has declined to address; or seeking other relief with respect to the terms of the Contract.
- b. A demand or assertion by Contractor directly to Owner, duly submitted in compliance with the procedural requirements set forth herein, contesting Engineer's decision regarding a Change Proposal, or seeking resolution of a contractual issue that Engineer has declined to address.
 - c. A demand or assertion by Owner or Contractor, duly submitted in compliance with the procedural requirements set forth herein, made pursuant to Paragraph 12.01.A.4, concerning disputes arising after Engineer has issued a recommendation of final payment.
 - d. A demand for money or services by a third party is not a Claim.
11. *Constituent of Concern*—Asbestos, petroleum, radioactive materials, polychlorinated biphenyls (PCBs), lead-based paint (as defined by the HUD/EPA standard), hazardous waste, and any substance, product, waste, or other material of any nature whatsoever that is or becomes listed, regulated, or addressed pursuant to Laws and Regulations regulating, relating to, or imposing liability or standards of conduct concerning, any hazardous, toxic, or dangerous waste, substance, or material.
 12. *Contract*—The entire and integrated written contract between Owner and Contractor concerning the Work.
 13. *Contract Documents*—Those items so designated in the Agreement, and which together comprise the Contract.
 14. *Contract Price*—The money that Owner has agreed to pay Contractor for completion of the Work in accordance with the Contract Documents.
 15. *Contract Times*—The number of days or the dates by which Contractor shall: (a) achieve Milestones, if any; (b) achieve Substantial Completion; and (c) complete the Work.
 16. *Contractor*—The individual or entity with which Owner has contracted for performance of the Work.
 17. *Cost of the Work*—See Paragraph 13.01 for definition.
 18. *Drawings*—The part of the Contract that graphically shows the scope, extent, and character of the Work to be performed by Contractor.
 19. *Effective Date of the Contract*—The date, indicated in the Agreement, on which the Contract becomes effective.
 20. *Electronic Document*—Any Project-related correspondence, attachments to correspondence, data, documents, drawings, information, or graphics, including but not limited to Shop Drawings and other Submittals, that are in an electronic or digital format.
 21. *Electronic Means*—Electronic mail (email), upload/download from a secure Project website, or other communications methods that allow: (a) the transmission or communication of Electronic Documents; (b) the documentation of transmissions, including sending and receipt; (c) printing of the transmitted Electronic Document by the

recipient; (d) the storage and archiving of the Electronic Document by sender and recipient; and (e) the use by recipient of the Electronic Document for purposes permitted by this Contract. Electronic Means does not include the use of text messaging, or of Facebook, Twitter, Instagram, or similar social media services for transmission of Electronic Documents.

22. *Engineer*—The individual or entity named as such in the Agreement.
23. *Field Order*—A written order issued by Engineer which requires minor changes in the Work but does not change the Contract Price or the Contract Times.
24. *Hazardous Environmental Condition*—The presence at the Site of Constituents of Concern in such quantities or circumstances that may present a danger to persons or property exposed thereto.
 - a. The presence at the Site of materials that are necessary for the execution of the Work, or that are to be incorporated into the Work, and that are controlled and contained pursuant to industry practices, Laws and Regulations, and the requirements of the Contract, is not a Hazardous Environmental Condition.
 - b. The presence of Constituents of Concern that are to be removed or remediated as part of the Work is not a Hazardous Environmental Condition.
 - c. The presence of Constituents of Concern as part of the routine, anticipated, and obvious working conditions at the Site, is not a Hazardous Environmental Condition.
25. *Laws and Regulations; Laws or Regulations*—Any and all applicable laws, statutes, rules, regulations, ordinances, codes, and binding decrees, resolutions, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.
26. *Liens*—Charges, security interests, or encumbrances upon Contract-related funds, real property, or personal property.
27. *Milestone*—A principal event in the performance of the Work that the Contract requires Contractor to achieve by an intermediate completion date, or by a time prior to Substantial Completion of all the Work.
28. *Notice of Award*—The written notice by Owner to a Bidder of Owner's acceptance of the Bid.
29. *Notice to Proceed*—A written notice by Owner to Contractor fixing the date on which the Contract Times will commence to run and on which Contractor shall start to perform the Work.
30. *Owner*—The individual or entity with which Contractor has contracted regarding the Work, and which has agreed to pay Contractor for the performance of the Work, pursuant to the terms of the Contract.
31. *Progress Schedule*—A schedule, prepared and maintained by Contractor, describing the sequence and duration of the activities comprising Contractor's plan to accomplish the Work within the Contract Times.
32. *Project*—The total undertaking to be accomplished for Owner by engineers, contractors, and others, including planning, study, design, construction, testing, commissioning, and start-up, and of which the Work to be performed under the Contract Documents is a part.

33. *Resident Project Representative*—The authorized representative of Engineer assigned to assist Engineer at the Site. As used herein, the term Resident Project Representative (RPR) includes any assistants or field staff of Resident Project Representative.
34. *Samples*—Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and that establish the standards by which such portion of the Work will be judged.
35. *Schedule of Submittals*—A schedule, prepared and maintained by Contractor, of required submittals and the time requirements for Engineer’s review of the submittals.
36. *Schedule of Values*—A schedule, prepared and maintained by Contractor, allocating portions of the Contract Price to various portions of the Work and used as the basis for reviewing Contractor’s Applications for Payment.
37. *Shop Drawings*—All drawings, diagrams, illustrations, schedules, and other data or information that are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work. Shop Drawings, whether approved or not, are not Drawings and are not Contract Documents.
38. *Site*—Lands or areas indicated in the Contract Documents as being furnished by Owner upon which the Work is to be performed, including rights-of-way and easements, and such other lands or areas furnished by Owner which are designated for the use of Contractor.
39. *Specifications*—The part of the Contract that consists of written requirements for materials, equipment, systems, standards, and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable to the Work.
40. *Subcontractor*—An individual or entity having a direct contract with Contractor or with any other Subcontractor for the performance of a part of the Work.
41. *Submittal*—A written or graphic document, prepared by or for Contractor, which the Contract Documents require Contractor to submit to Engineer, or that is indicated as a Submittal in the Schedule of Submittals accepted by Engineer. Submittals may include Shop Drawings and Samples; schedules; product data; Owner-delegated designs; sustainable design information; information on special procedures; testing plans; results of tests and evaluations, source quality-control testing and inspections, and field or Site quality-control testing and inspections; warranties and certifications; Suppliers’ instructions and reports; records of delivery of spare parts and tools; operations and maintenance data; Project photographic documentation; record documents; and other such documents required by the Contract Documents. Submittals, whether or not approved or accepted by Engineer, are not Contract Documents. Change Proposals, Change Orders, Claims, notices, Applications for Payment, and requests for interpretation or clarification are not Submittals.
42. *Substantial Completion*—The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of Engineer, the Work (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Work (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms “substantially complete” and “substantially completed” as applied to all or part of the Work refer to Substantial Completion of such Work.

43. *Successful Bidder*—The Bidder to which the Owner makes an award of contract.
44. *Supplementary Conditions*—The part of the Contract that amends or supplements these General Conditions.
45. *Supplier*—A manufacturer, fabricator, supplier, distributor, or vendor having a direct contract with Contractor or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by Contractor or a Subcontractor.
46. *Technical Data*
- a. Those items expressly identified as Technical Data in the Supplementary Conditions, with respect to either (1) existing subsurface conditions at or adjacent to the Site, or existing physical conditions at or adjacent to the Site including existing surface or subsurface structures (except Underground Facilities) or (2) Hazardous Environmental Conditions at the Site.
 - b. If no such express identifications of Technical Data have been made with respect to conditions at the Site, then Technical Data is defined, with respect to conditions at the Site under Paragraphs 5.03, 5.04, and 5.06, as the data contained in boring logs, recorded measurements of subsurface water levels, assessments of the condition of subsurface facilities, laboratory test results, and other factual, objective information regarding conditions at the Site that are set forth in any geotechnical, environmental, or other Site or facilities conditions report prepared for the Project and made available to Contractor.
 - c. Information and data regarding the presence or location of Underground Facilities are not intended to be categorized, identified, or defined as Technical Data, and instead Underground Facilities are shown or indicated on the Drawings.
47. *Underground Facilities*—All active or not-in-service underground lines, pipelines, conduits, ducts, encasements, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or systems at the Site, including but not limited to those facilities or systems that produce, transmit, distribute, or convey telephone or other communications, cable television, fiber optic transmissions, power, electricity, light, heat, gases, oil, crude oil products, liquid petroleum products, water, steam, waste, wastewater, storm water, other liquids or chemicals, or traffic or other control systems. An abandoned facility or system is not an Underground Facility.
48. *Unit Price Work*—Work to be paid for on the basis of unit prices.
49. *Work*—The entire construction or the various separately identifiable parts thereof required to be provided under the Contract Documents. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such construction; furnishing, installing, and incorporating all materials and equipment into such construction; and may include related services such as testing, start-up, and commissioning, all as required by the Contract Documents.
50. *Work Change Directive*—A written directive to Contractor issued on or after the Effective Date of the Contract, signed by Owner and recommended by Engineer, ordering an addition, deletion, or revision in the Work.

1.02 Terminology

- A. The words and terms discussed in Paragraphs 1.02.B, C, D, and E are not defined terms that require initial capital letters, but, when used in the Bidding Requirements or Contract Documents, have the indicated meaning.
- B. *Intent of Certain Terms or Adjectives:* The Contract Documents include the terms “as allowed,” “as approved,” “as ordered,” “as directed” or terms of like effect or import to authorize an exercise of professional judgment by Engineer. In addition, the adjectives “reasonable,” “suitable,” “acceptable,” “proper,” “satisfactory,” or adjectives of like effect or import are used to describe an action or determination of Engineer as to the Work. It is intended that such exercise of professional judgment, action, or determination will be solely to evaluate, in general, the Work for compliance with the information in the Contract Documents and with the design concept of the Project as a functioning whole as shown or indicated in the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective is not intended to and shall not be effective to assign to Engineer any duty or authority to supervise or direct the performance of the Work, or any duty or authority to undertake responsibility contrary to the provisions of Article 10 or any other provision of the Contract Documents.
- C. *Day:* The word “day” means a calendar day of 24 hours measured from midnight to the next midnight.
- D. *Defective:* The word “defective,” when modifying the word “Work,” refers to Work that is unsatisfactory, faulty, or deficient in that it:
 - 1. does not conform to the Contract Documents;
 - 2. does not meet the requirements of any applicable inspection, reference standard, test, or approval referred to in the Contract Documents; or
 - 3. has been damaged prior to Engineer’s recommendation of final payment (unless responsibility for the protection thereof has been assumed by Owner at Substantial Completion in accordance with Paragraph 15.03 or Paragraph 15.04).
- E. *Furnish, Install, Perform, Provide*
 - 1. The word “furnish,” when used in connection with services, materials, or equipment, means to supply and deliver said services, materials, or equipment to the Site (or some other specified location) ready for use or installation and in usable or operable condition.
 - 2. The word “install,” when used in connection with services, materials, or equipment, means to put into use or place in final position said services, materials, or equipment complete and ready for intended use.
 - 3. The words “perform” or “provide,” when used in connection with services, materials, or equipment, means to furnish and install said services, materials, or equipment complete and ready for intended use.
 - 4. If the Contract Documents establish an obligation of Contractor with respect to specific services, materials, or equipment, but do not expressly use any of the four words “furnish,” “install,” “perform,” or “provide,” then Contractor shall furnish and install said services, materials, or equipment complete and ready for intended use.

- F. *Contract Price or Contract Times*: References to a change in “Contract Price or Contract Times” or “Contract Times or Contract Price” or similar, indicate that such change applies to (1) Contract Price, (2) Contract Times, or (3) both Contract Price and Contract Times, as warranted, even if the term “or both” is not expressed.
- G. Unless stated otherwise in the Contract Documents, words or phrases that have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning.

ARTICLE 2—PRELIMINARY MATTERS

2.01 *Delivery of Performance and Payment Bonds; Evidence of Insurance*

- A. *Performance and Payment Bonds*: When Contractor delivers the signed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner the performance bond and payment bond (if the Contract requires Contractor to furnish such bonds).
- B. *Evidence of Contractor’s Insurance*: When Contractor delivers the signed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner, with copies to each additional insured (as identified in the Contract), the certificates, endorsements, and other evidence of insurance required to be provided by Contractor in accordance with Article 6, except to the extent the Supplementary Conditions expressly establish other dates for delivery of specific insurance policies.
- C. *Evidence of Owner’s Insurance*: After receipt of the signed counterparts of the Agreement and all required bonds and insurance documentation, Owner shall promptly deliver to Contractor, with copies to each additional insured (as identified in the Contract), the certificates and other evidence of insurance required to be provided by Owner under Article 6.

2.02 *Copies of Documents*

- A. Owner shall furnish to Contractor four printed copies of the Contract (including one fully signed counterpart of the Agreement), and one copy in electronic portable document format (PDF). Additional printed copies will be furnished upon request at the cost of reproduction.
- B. Owner shall maintain and safeguard at least one original printed record version of the Contract, including Drawings and Specifications signed and sealed by Engineer and other design professionals. Owner shall make such original printed record version of the Contract available to Contractor for review. Owner may delegate the responsibilities under this provision to Engineer.

2.03 *Before Starting Construction*

- A. *Preliminary Schedules*: Within 10 days after the Effective Date of the Contract (or as otherwise required by the Contract Documents), Contractor shall submit to Engineer for timely review:
 - 1. a preliminary Progress Schedule indicating the times (numbers of days or dates) for starting and completing the various stages of the Work, including any Milestones specified in the Contract;
 - 2. a preliminary Schedule of Submittals; and
 - 3. a preliminary Schedule of Values for all of the Work which includes quantities and prices of items which when added together equal the Contract Price and subdivides the Work

into component parts in sufficient detail to serve as the basis for progress payments during performance of the Work. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work.

2.04 *Preconstruction Conference; Designation of Authorized Representatives*

- A. Before any Work at the Site is started, a conference attended by Owner, Contractor, Engineer, and others as appropriate will be held to establish a working understanding among the parties as to the Work, and to discuss the schedules referred to in Paragraph 2.03.A, procedures for handling Shop Drawings, Samples, and other Submittals, processing Applications for Payment, electronic or digital transmittals, and maintaining required records.
- B. At this conference Owner and Contractor each shall designate, in writing, a specific individual to act as its authorized representative with respect to the services and responsibilities under the Contract. Such individuals shall have the authority to transmit and receive information, render decisions relative to the Contract, and otherwise act on behalf of each respective party.

2.05 *Acceptance of Schedules*

- A. At least 10 days before submission of the first Application for Payment a conference, attended by Contractor, Engineer, and others as appropriate, will be held to review the schedules submitted in accordance with Paragraph 2.03.A. No progress payment will be made to Contractor until acceptable schedules are submitted to Engineer.
 - 1. The Progress Schedule will be acceptable to Engineer if it provides an orderly progression of the Work to completion within the Contract Times. Such acceptance will not impose on Engineer responsibility for the Progress Schedule, for sequencing, scheduling, or progress of the Work, nor interfere with or relieve Contractor from Contractor's full responsibility therefor.
 - 2. Contractor's Schedule of Submittals will be acceptable to Engineer if it provides a workable arrangement for reviewing and processing the required submittals.
 - 3. Contractor's Schedule of Values will be acceptable to Engineer as to form and substance if it provides a reasonable allocation of the Contract Price to the component parts of the Work.
 - 4. If a schedule is not acceptable, Contractor will have an additional 10 days to revise and resubmit the schedule.

2.06 *Electronic Transmittals*

- A. Except as otherwise stated elsewhere in the Contract, the Owner, Engineer, and Contractor may send, and shall accept, Electronic Documents transmitted by Electronic Means.
- B. If the Contract does not establish protocols for Electronic Means, then Owner, Engineer, and Contractor shall jointly develop such protocols.
- C. Subject to any governing protocols for Electronic Means, when transmitting Electronic Documents by Electronic Means, the transmitting party makes no representations as to long-term compatibility, usability, or readability of the Electronic Documents resulting from the recipient's use of software application packages, operating systems, or computer hardware differing from those used in the drafting or transmittal of the Electronic Documents.

ARTICLE 3—CONTRACT DOCUMENTS: INTENT, REQUIREMENTS, REUSE

3.01 *Intent*

- A. The Contract Documents are complementary; what is required by one Contract Document is as binding as if required by all.
- B. It is the intent of the Contract Documents to describe a functionally complete Project (or part thereof) to be constructed in accordance with the Contract Documents.
- C. Unless otherwise stated in the Contract Documents, if there is a discrepancy between the electronic versions of the Contract Documents (including any printed copies derived from such electronic versions) and the printed record version, the printed record version will govern.
- D. The Contract supersedes prior negotiations, representations, and agreements, whether written or oral.
- E. Engineer will issue clarifications and interpretations of the Contract Documents as provided herein.
- F. Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation will be deemed stricken, and all remaining provisions will continue to be valid and binding upon Owner and Contractor, which agree that the Contract Documents will be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.
- G. Nothing in the Contract Documents creates:
 - 1. any contractual relationship between Owner or Engineer and any Subcontractor, Supplier, or other individual or entity performing or furnishing any of the Work, for the benefit of such Subcontractor, Supplier, or other individual or entity; or
 - 2. any obligation on the part of Owner or Engineer to pay or to see to the payment of any money due any such Subcontractor, Supplier, or other individual or entity, except as may otherwise be required by Laws and Regulations.

3.02 *Reference Standards*

- A. *Standards Specifications, Codes, Laws and Regulations*
 - 1. Reference in the Contract Documents to standard specifications, manuals, reference standards, or codes of any technical society, organization, or association, or to Laws or Regulations, whether such reference be specific or by implication, means the standard specification, manual, reference standard, code, or Laws or Regulations in effect at the time of opening of Bids (or on the Effective Date of the Contract if there were no Bids), except as may be otherwise specifically stated in the Contract Documents.
 - 2. No provision of any such standard specification, manual, reference standard, or code, and no instruction of a Supplier, will be effective to change the duties or responsibilities of Owner, Contractor, or Engineer from those set forth in the part of the Contract Documents prepared by or for Engineer. No such provision or instruction shall be effective to assign to Owner or Engineer any duty or authority to supervise or direct the performance of the Work, or any duty or authority to undertake responsibility

inconsistent with the provisions of the part of the Contract Documents prepared by or for Engineer.

3.03 *Reporting and Resolving Discrepancies*

A. *Reporting Discrepancies*

1. *Contractor's Verification of Figures and Field Measurements:* Before undertaking each part of the Work, Contractor shall carefully study the Contract Documents, and check and verify pertinent figures and dimensions therein, particularly with respect to applicable field measurements. Contractor shall promptly report in writing to Engineer any conflict, error, ambiguity, or discrepancy that Contractor discovers, or has actual knowledge of, and shall not proceed with any Work affected thereby until the conflict, error, ambiguity, or discrepancy is resolved by a clarification or interpretation by Engineer, or by an amendment or supplement to the Contract issued pursuant to Paragraph 11.01.
2. *Contractor's Review of Contract Documents:* If, before or during the performance of the Work, Contractor discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents, or between the Contract Documents and (a) any applicable Law or Regulation, (b) actual field conditions, (c) any standard specification, manual, reference standard, or code, or (d) any instruction of any Supplier, then Contractor shall promptly report it to Engineer in writing. Contractor shall not proceed with the Work affected thereby (except in an emergency as required by Paragraph 7.15) until the conflict, error, ambiguity, or discrepancy is resolved, by a clarification or interpretation by Engineer, or by an amendment or supplement to the Contract issued pursuant to Paragraph 11.01.
3. Contractor shall not be liable to Owner or Engineer for failure to report any conflict, error, ambiguity, or discrepancy in the Contract Documents unless Contractor had actual knowledge thereof.

B. *Resolving Discrepancies*

1. Except as may be otherwise specifically stated in the Contract Documents, the provisions of the part of the Contract Documents prepared by or for Engineer take precedence in resolving any conflict, error, ambiguity, or discrepancy between such provisions of the Contract Documents and:
 - a. the provisions of any standard specification, manual, reference standard, or code, or the instruction of any Supplier (whether or not specifically incorporated by reference as a Contract Document); or
 - b. the provisions of any Laws or Regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such Law or Regulation).

3.04 *Requirements of the Contract Documents*

- A. During the performance of the Work and until final payment, Contractor and Owner shall submit to the Engineer in writing all matters in question concerning the requirements of the Contract Documents (sometimes referred to as requests for information or interpretation—RFIs), or relating to the acceptability of the Work under the Contract Documents, as soon as possible after such matters arise. Engineer will be the initial interpreter of the requirements of the Contract Documents, and judge of the acceptability of the Work.

- B. Engineer will, with reasonable promptness, render a written clarification, interpretation, or decision on the issue submitted, or initiate an amendment or supplement to the Contract Documents. Engineer's written clarification, interpretation, or decision will be final and binding on Contractor, unless it appeals by submitting a Change Proposal, and on Owner, unless it appeals by filing a Claim.
- C. If a submitted matter in question concerns terms and conditions of the Contract Documents that do not involve (1) the performance or acceptability of the Work under the Contract Documents, (2) the design (as set forth in the Drawings, Specifications, or otherwise), or (3) other engineering or technical matters, then Engineer will promptly notify Owner and Contractor in writing that Engineer is unable to provide a decision or interpretation. If Owner and Contractor are unable to agree on resolution of such a matter in question, either party may pursue resolution as provided in Article 12.

3.05 *Reuse of Documents*

- A. Contractor and its Subcontractors and Suppliers shall not:
 - 1. have or acquire any title to or ownership rights in any of the Drawings, Specifications, or other documents (or copies of any thereof) prepared by or bearing the seal of Engineer or its consultants, including electronic media versions, or reuse any such Drawings, Specifications, other documents, or copies thereof on extensions of the Project or any other project without written consent of Owner and Engineer and specific written verification or adaptation by Engineer; or
 - 2. have or acquire any title or ownership rights in any other Contract Documents, reuse any such Contract Documents for any purpose without Owner's express written consent, or violate any copyrights pertaining to such Contract Documents.
- B. The prohibitions of this Paragraph 3.05 will survive final payment, or termination of the Contract. Nothing herein precludes Contractor from retaining copies of the Contract Documents for record purposes.

ARTICLE 4—COMMENCEMENT AND PROGRESS OF THE WORK

4.01 *Commencement of Contract Times; Notice to Proceed*

- A. The Contract Times will commence to run on the 30th day after the Effective Date of the Contract or, if a Notice to Proceed is given, on the day indicated in the Notice to Proceed. A Notice to Proceed may be given at any time within 30 days after the Effective Date of the Contract. In no event will the Contract Times commence to run later than the 60th day after the day of Bid opening or the 30th day after the Effective Date of the Contract, whichever date is earlier.

4.02 *Starting the Work*

- A. Contractor shall start to perform the Work on the date when the Contract Times commence to run. No Work may be done at the Site prior to such date.

4.03 *Reference Points*

- A. Owner shall provide engineering surveys to establish reference points for construction which in Engineer's judgment are necessary to enable Contractor to proceed with the Work. Contractor shall be responsible for laying out the Work, shall protect and preserve the

established reference points and property monuments, and shall make no changes or relocations without the prior written approval of Owner. Contractor shall report to Engineer whenever any reference point or property monument is lost or destroyed or requires relocation because of necessary changes in grades or locations, and shall be responsible for the accurate replacement or relocation of such reference points or property monuments by professionally qualified personnel.

4.04 *Progress Schedule*

- A. Contractor shall adhere to the Progress Schedule established in accordance with Paragraph 2.05 as it may be adjusted from time to time as provided below.
 - 1. Contractor shall submit to Engineer for acceptance (to the extent indicated in Paragraph 2.05) proposed adjustments in the Progress Schedule that will not result in changing the Contract Times.
 - 2. Proposed adjustments in the Progress Schedule that will change the Contract Times must be submitted in accordance with the requirements of Article 11.
- B. Contractor shall carry on the Work and adhere to the Progress Schedule during all disputes or disagreements with Owner. No Work will be delayed or postponed pending resolution of any disputes or disagreements, or during any appeal process, except as permitted by Paragraph 16.04, or as Owner and Contractor may otherwise agree in writing.

4.05 *Delays in Contractor's Progress*

- A. If Owner, Engineer, or anyone for whom Owner is responsible, delays, disrupts, or interferes with the performance or progress of the Work, then Contractor shall be entitled to an equitable adjustment in Contract Price or Contract Times.
- B. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for delay, disruption, or interference caused by or within the control of Contractor. Delay, disruption, and interference attributable to and within the control of a Subcontractor or Supplier shall be deemed to be within the control of Contractor.
- C. If Contractor's performance or progress is delayed, disrupted, or interfered with by unanticipated causes not the fault of and beyond the control of Owner, Contractor, and those for which they are responsible, then Contractor shall be entitled to an equitable adjustment in Contract Times. Such an adjustment will be Contractor's sole and exclusive remedy for the delays, disruption, and interference described in this paragraph. Causes of delay, disruption, or interference that may give rise to an adjustment in Contract Times under this paragraph include but are not limited to the following:
 - 1. Severe and unavoidable natural catastrophes such as fires, floods, epidemics, and earthquakes;
 - 2. Abnormal weather conditions;
 - 3. Acts or failures to act of third-party utility owners or other third-party entities (other than those third-party utility owners or other third-party entities performing other work at or adjacent to the Site as arranged by or under contract with Owner, as contemplated in Article 8); and
 - 4. Acts of war or terrorism.

- D. Contractor's entitlement to an adjustment of Contract Times or Contract Price is limited as follows:
1. Contractor's entitlement to an adjustment of the Contract Times is conditioned on the delay, disruption, or interference adversely affecting an activity on the critical path to completion of the Work, as of the time of the delay, disruption, or interference.
 2. Contractor shall not be entitled to an adjustment in Contract Price for any delay, disruption, or interference if such delay is concurrent with a delay, disruption, or interference caused by or within the control of Contractor. Such a concurrent delay by Contractor shall not preclude an adjustment of Contract Times to which Contractor is otherwise entitled.
 3. Adjustments of Contract Times or Contract Price are subject to the provisions of Article 11.
- E. Each Contractor request or Change Proposal seeking an increase in Contract Times or Contract Price must be supplemented by supporting data that sets forth in detail the following:
1. The circumstances that form the basis for the requested adjustment;
 2. The date upon which each cause of delay, disruption, or interference began to affect the progress of the Work;
 3. The date upon which each cause of delay, disruption, or interference ceased to affect the progress of the Work;
 4. The number of days' increase in Contract Times claimed as a consequence of each such cause of delay, disruption, or interference; and
 5. The impact on Contract Price, in accordance with the provisions of Paragraph 11.07.
- Contractor shall also furnish such additional supporting documentation as Owner or Engineer may require including, where appropriate, a revised progress schedule indicating all the activities affected by the delay, disruption, or interference, and an explanation of the effect of the delay, disruption, or interference on the critical path to completion of the Work.
- F. Delays, disruption, and interference to the performance or progress of the Work resulting from the existence of a differing subsurface or physical condition, an Underground Facility that was not shown or indicated by the Contract Documents, or not shown or indicated with reasonable accuracy, and those resulting from Hazardous Environmental Conditions, are governed by Article 5, together with the provisions of Paragraphs 4.05.D and 4.05.E.
- G. Paragraph 8.03 addresses delays, disruption, and interference to the performance or progress of the Work resulting from the performance of certain other work at or adjacent to the Site.

ARTICLE 5—SITE; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS

5.01 *Availability of Lands*

- A. Owner shall furnish the Site. Owner shall notify Contractor in writing of any encumbrances or restrictions not of general application but specifically related to use of the Site with which Contractor must comply in performing the Work.

- B. Upon reasonable written request, Owner shall furnish Contractor with a current statement of record legal title and legal description of the lands upon which permanent improvements are to be made and Owner's interest therein as necessary for giving notice of or filing a mechanic's or construction lien against such lands in accordance with applicable Laws and Regulations.
- C. Contractor shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

5.02 *Use of Site and Other Areas*

A. *Limitation on Use of Site and Other Areas*

1. Contractor shall confine construction equipment, temporary construction facilities, the storage of materials and equipment, and the operations of workers to the Site, adjacent areas that Contractor has arranged to use through construction easements or otherwise, and other adjacent areas permitted by Laws and Regulations, and shall not unreasonably encumber the Site and such other adjacent areas with construction equipment or other materials or equipment. Contractor shall assume full responsibility for (a) damage to the Site; (b) damage to any such other adjacent areas used for Contractor's operations; (c) damage to any other adjacent land or areas, or to improvements, structures, utilities, or similar facilities located at such adjacent lands or areas; and (d) for injuries and losses sustained by the owners or occupants of any such land or areas; provided that such damage or injuries result from the performance of the Work or from other actions or conduct of the Contractor or those for which Contractor is responsible.
 2. If a damage or injury claim is made by the owner or occupant of any such land or area because of the performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible, Contractor shall (a) take immediate corrective or remedial action as required by Paragraph 7.13, or otherwise; (b) promptly attempt to settle the claim as to all parties through negotiations with such owner or occupant, or otherwise resolve the claim by arbitration or other dispute resolution proceeding, or in a court of competent jurisdiction; and (c) to the fullest extent permitted by Laws and Regulations, indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, from and against any such claim, and against all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any claim or action, legal or equitable, brought by any such owner or occupant against Owner, Engineer, or any other party indemnified hereunder to the extent caused directly or indirectly, in whole or in part by, or based upon, Contractor's performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible.
- B. *Removal of Debris During Performance of the Work:* During the progress of the Work the Contractor shall keep the Site and other adjacent areas free from accumulations of waste materials, rubbish, and other debris. Removal and disposal of such waste materials, rubbish, and other debris will conform to applicable Laws and Regulations.
 - C. *Cleaning:* Prior to Substantial Completion of the Work Contractor shall clean the Site and the Work and make it ready for utilization by Owner. At the completion of the Work Contractor shall remove from the Site and adjacent areas all tools, appliances, construction equipment

and machinery, and surplus materials and shall restore to original condition all property not designated for alteration by the Contract Documents.

- D. *Loading of Structures*: Contractor shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall Contractor subject any part of the Work or adjacent structures or land to stresses or pressures that will endanger them.

5.03 *Subsurface and Physical Conditions*

- A. *Reports and Drawings*: The Supplementary Conditions identify:

1. Those reports of explorations and tests of subsurface conditions at or adjacent to the Site that contain Technical Data;
2. Those drawings of existing physical conditions at or adjacent to the Site, including those drawings depicting existing surface or subsurface structures at or adjacent to the Site (except Underground Facilities), that contain Technical Data; and
3. Technical Data contained in such reports and drawings.

- B. *Underground Facilities*: Underground Facilities are shown or indicated on the Drawings, pursuant to Paragraph 5.05, and not in the drawings referred to in Paragraph 5.03.A. Information and data regarding the presence or location of Underground Facilities are not intended to be categorized, identified, or defined as Technical Data.

- C. *Reliance by Contractor on Technical Data*: Contractor may rely upon the accuracy of the Technical Data expressly identified in the Supplementary Conditions with respect to such reports and drawings, but such reports and drawings are not Contract Documents. If no such express identification has been made, then Contractor may rely upon the accuracy of the Technical Data as defined in Paragraph 1.01.A.46.b.

- D. *Limitations of Other Data and Documents*: Except for such reliance on Technical Data, Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, with respect to:
1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto;
 2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings;
 3. the contents of other Site-related documents made available to Contractor, such as record drawings from other projects at or adjacent to the Site, or Owner's archival documents concerning the Site; or
 4. any Contractor interpretation of or conclusion drawn from any Technical Data or any such other data, interpretations, opinions, or information.

5.04 *Differing Subsurface or Physical Conditions*

- A. *Notice by Contractor:* If Contractor believes that any subsurface or physical condition that is uncovered or revealed at the Site:
1. is of such a nature as to establish that any Technical Data on which Contractor is entitled to rely as provided in Paragraph 5.03 is materially inaccurate;
 2. is of such a nature as to require a change in the Drawings or Specifications;
 3. differs materially from that shown or indicated in the Contract Documents; or
 4. is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents;

then Contractor shall, promptly after becoming aware thereof and before further disturbing the subsurface or physical conditions or performing any Work in connection therewith (except in an emergency as required by Paragraph 7.15), notify Owner and Engineer in writing about such condition. Contractor shall not further disturb such condition or perform any Work in connection therewith (except with respect to an emergency) until receipt of a written statement permitting Contractor to do so.

- B. *Engineer's Review:* After receipt of written notice as required by the preceding paragraph, Engineer will promptly review the subsurface or physical condition in question; determine whether it is necessary for Owner to obtain additional exploration or tests with respect to the condition; conclude whether the condition falls within any one or more of the differing site condition categories in Paragraph 5.04.A; obtain any pertinent cost or schedule information from Contractor; prepare recommendations to Owner regarding the Contractor's resumption of Work in connection with the subsurface or physical condition in question and the need for any change in the Drawings or Specifications; and advise Owner in writing of Engineer's findings, conclusions, and recommendations.
- C. *Owner's Statement to Contractor Regarding Site Condition:* After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) regarding the subsurface or physical condition in question, addressing the resumption of Work in connection with such condition, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations, in whole or in part.
- D. *Early Resumption of Work:* If at any time Engineer determines that Work in connection with the subsurface or physical condition in question may resume prior to completion of Engineer's review or Owner's issuance of its statement to Contractor, because the condition in question has been adequately documented, and analyzed on a preliminary basis, then the Engineer may at its discretion instruct Contractor to resume such Work.
- E. *Possible Price and Times Adjustments*
1. Contractor shall be entitled to an equitable adjustment in Contract Price or Contract Times, to the extent that the existence of a differing subsurface or physical condition, or any related delay, disruption, or interference, causes an increase or decrease in

Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:

- a. Such condition must fall within any one or more of the categories described in Paragraph 5.04.A;
 - b. With respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraph 13.03; and,
 - c. Contractor's entitlement to an adjustment of the Contract Times is subject to the provisions of Paragraphs 4.05.D and 4.05.E.
2. Contractor shall not be entitled to any adjustment in the Contract Price or Contract Times with respect to a subsurface or physical condition if:
- a. Contractor knew of the existence of such condition at the time Contractor made a commitment to Owner with respect to Contract Price and Contract Times by the submission of a Bid or becoming bound under a negotiated contract, or otherwise;
 - b. The existence of such condition reasonably could have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and contiguous areas expressly required by the Bidding Requirements or Contract Documents to be conducted by or for Contractor prior to Contractor's making such commitment; or
 - c. Contractor failed to give the written notice required by Paragraph 5.04.A.
3. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, then any such adjustment will be set forth in a Change Order.
4. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the subsurface or physical condition in question.
- F. *Underground Facilities; Hazardous Environmental Conditions*: Paragraph 5.05 governs rights and responsibilities regarding the presence or location of Underground Facilities. Paragraph 5.06 governs rights and responsibilities regarding Hazardous Environmental Conditions. The provisions of Paragraphs 5.03 and 5.04 are not applicable to the presence or location of Underground Facilities, or to Hazardous Environmental Conditions.

5.05 *Underground Facilities*

- A. *Contractor's Responsibilities*: Unless it is otherwise expressly provided in the Supplementary Conditions, the cost of all of the following are included in the Contract Price, and Contractor shall have full responsibility for:
1. reviewing and checking all information and data regarding existing Underground Facilities at the Site;
 2. complying with applicable state and local utility damage prevention Laws and Regulations;

3. verifying the actual location of those Underground Facilities shown or indicated in the Contract Documents as being within the area affected by the Work, by exposing such Underground Facilities during the course of construction;
 4. coordination of the Work with the owners (including Owner) of such Underground Facilities, during construction; and
 5. the safety and protection of all existing Underground Facilities at the Site, and repairing any damage thereto resulting from the Work.
- B. *Notice by Contractor:* If Contractor believes that an Underground Facility that is uncovered or revealed at the Site was not shown or indicated on the Drawings, or was not shown or indicated on the Drawings with reasonable accuracy, then Contractor shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by Paragraph 7.15), notify Owner and Engineer in writing regarding such Underground Facility.
- C. *Engineer's Review:* Engineer will:
1. promptly review the Underground Facility and conclude whether such Underground Facility was not shown or indicated on the Drawings, or was not shown or indicated with reasonable accuracy;
 2. identify and communicate with the owner of the Underground Facility; prepare recommendations to Owner (and if necessary issue any preliminary instructions to Contractor) regarding the Contractor's resumption of Work in connection with the Underground Facility in question;
 3. obtain any pertinent cost or schedule information from Contractor; determine the extent, if any, to which a change is required in the Drawings or Specifications to reflect and document the consequences of the existence or location of the Underground Facility; and
 4. advise Owner in writing of Engineer's findings, conclusions, and recommendations.

During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.

- D. *Owner's Statement to Contractor Regarding Underground Facility:* After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) regarding the Underground Facility in question addressing the resumption of Work in connection with such Underground Facility, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations in whole or in part.
- E. *Early Resumption of Work:* If at any time Engineer determines that Work in connection with the Underground Facility may resume prior to completion of Engineer's review or Owner's issuance of its statement to Contractor, because the Underground Facility in question and conditions affected by its presence have been adequately documented, and analyzed on a preliminary basis, then the Engineer may at its discretion instruct Contractor to resume such Work.
- F. *Possible Price and Times Adjustments*
1. Contractor shall be entitled to an equitable adjustment in the Contract Price or Contract Times, to the extent that any existing Underground Facility at the Site that was not shown

or indicated on the Drawings, or was not shown or indicated with reasonable accuracy, or any related delay, disruption, or interference, causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:

- a. With respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraph 13.03;
 - b. Contractor's entitlement to an adjustment of the Contract Times is subject to the provisions of Paragraphs 4.05.D and 4.05.E; and
 - c. Contractor gave the notice required in Paragraph 5.05.B.
2. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, then any such adjustment will be set forth in a Change Order.
 3. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the Underground Facility in question.
 4. The information and data shown or indicated on the Drawings with respect to existing Underground Facilities at the Site is based on information and data (a) furnished by the owners of such Underground Facilities, or by others, (b) obtained from available records, or (c) gathered in an investigation conducted in accordance with the current edition of ASCE 38, Standard Guideline for the Collection and Depiction of Existing Subsurface Utility Data, by the American Society of Civil Engineers. If such information or data is incorrect or incomplete, Contractor's remedies are limited to those set forth in this Paragraph 5.05.F.

5.06 *Hazardous Environmental Conditions at Site*

A. *Reports and Drawings*: The Supplementary Conditions identify:

1. those reports known to Owner relating to Hazardous Environmental Conditions that have been identified at or adjacent to the Site;
2. drawings known to Owner relating to Hazardous Environmental Conditions that have been identified at or adjacent to the Site; and
3. Technical Data contained in such reports and drawings.

B. *Reliance by Contractor on Technical Data Authorized*: Contractor may rely upon the accuracy of the Technical Data expressly identified in the Supplementary Conditions with respect to such reports and drawings, but such reports and drawings are not Contract Documents. If no such express identification has been made, then Contractor may rely on the accuracy of the Technical Data as defined in Paragraph 1.01.A.46.b. Except for such reliance on Technical Data, Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, with respect to:

1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures

- of construction to be employed by Contractor, and safety precautions and programs incident thereto;
2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings; or
 3. any Contractor interpretation of or conclusion drawn from any Technical Data or any such other data, interpretations, opinions or information.
- C. Contractor shall not be responsible for removing or remediating any Hazardous Environmental Condition encountered, uncovered, or revealed at the Site unless such removal or remediation is expressly identified in the Contract Documents to be within the scope of the Work.
- D. Contractor shall be responsible for controlling, containing, and duly removing all Constituents of Concern brought to the Site by Contractor, Subcontractors, Suppliers, or anyone else for whom Contractor is responsible, and for any associated costs; and for the costs of removing and remediating any Hazardous Environmental Condition created by the presence of any such Constituents of Concern.
- E. If Contractor encounters, uncovers, or reveals a Hazardous Environmental Condition whose removal or remediation is not expressly identified in the Contract Documents as being within the scope of the Work, or if Contractor or anyone for whom Contractor is responsible creates a Hazardous Environmental Condition, then Contractor shall immediately: (1) secure or otherwise isolate such condition; (2) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by Paragraph 7.15); and (3) notify Owner and Engineer (and promptly thereafter confirm such notice in writing). Owner shall promptly consult with Engineer concerning the necessity for Owner to retain a qualified expert to evaluate such condition or take corrective action, if any. Promptly after consulting with Engineer, Owner shall take such actions as are necessary to permit Owner to timely obtain required permits and provide Contractor the written notice required by Paragraph 5.06.F. If Contractor or anyone for whom Contractor is responsible created the Hazardous Environmental Condition in question, then Owner may remove and remediate the Hazardous Environmental Condition, and impose a set-off against payments to account for the associated costs.
- F. Contractor shall not resume Work in connection with such Hazardous Environmental Condition or in any affected area until after Owner has obtained any required permits related thereto, and delivered written notice to Contractor either (1) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work, or (2) specifying any special conditions under which such Work may be resumed safely.
- G. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times, as a result of such Work stoppage, such special conditions under which Work is agreed to be resumed by Contractor, or any costs or expenses incurred in response to the Hazardous Environmental Condition, then within 30 days of Owner's written notice regarding the resumption of Work, Contractor may submit a Change Proposal, or Owner may impose a set-off. Entitlement to any such adjustment is subject to the provisions of Paragraphs 4.05.D, 4.05.E, 11.07, and 11.08.
- H. If, after receipt of such written notice, Contractor does not agree to resume such Work based on a reasonable belief it is unsafe, or does not agree to resume such Work under such special

conditions, then Owner may order the portion of the Work that is in the area affected by such condition to be deleted from the Work, following the contractual change procedures in Article 11. Owner may have such deleted portion of the Work performed by Owner's own forces or others in accordance with Article 8.

- I. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court, arbitration, or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition, provided that such Hazardous Environmental Condition (1) was not shown or indicated in the Drawings, Specifications, or other Contract Documents, identified as Technical Data entitled to limited reliance pursuant to Paragraph 5.06.B, or identified in the Contract Documents to be included within the scope of the Work, and (2) was not created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 5.06.I obligates Owner to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
- J. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the failure to control, contain, or remove a Constituent of Concern brought to the Site by Contractor or by anyone for whom Contractor is responsible, or to a Hazardous Environmental Condition created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 5.06.J obligates Contractor to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
- K. The provisions of Paragraphs 5.03, 5.04, and 5.05 do not apply to the presence of Constituents of Concern or to a Hazardous Environmental Condition uncovered or revealed at the Site.

ARTICLE 6—BONDS AND INSURANCE

6.01 *Performance, Payment, and Other Bonds*

- A. Contractor shall furnish a performance bond and a payment bond, each in an amount at least equal to the Contract Price, as security for the faithful performance and payment of Contractor's obligations under the Contract. These bonds must remain in effect until one year after the date when final payment becomes due or until completion of the correction period specified in Paragraph 15.08, whichever is later, except as provided otherwise by Laws or Regulations, the terms of a prescribed bond form, the Supplementary Conditions, or other provisions of the Contract.
- B. Contractor shall also furnish such other bonds (if any) as are required by the Supplementary Conditions or other provisions of the Contract.
- C. All bonds must be in the form included in the Bidding Documents or otherwise specified by Owner prior to execution of the Contract, except as provided otherwise by Laws or

Regulations, and must be issued and signed by a surety named in “Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies” as published in Department Circular 570 (as amended and supplemented) by the Bureau of the Fiscal Service, U.S. Department of the Treasury. A bond signed by an agent or attorney-in-fact must be accompanied by a certified copy of that individual’s authority to bind the surety. The evidence of authority must show that it is effective on the date the agent or attorney-in-fact signed the accompanying bond.

- D. Contractor shall obtain the required bonds from surety companies that are duly licensed or authorized, in the state or jurisdiction in which the Project is located, to issue bonds in the required amounts.
- E. If the surety on a bond furnished by Contractor is declared bankrupt or becomes insolvent, or the surety ceases to meet the requirements above, then Contractor shall promptly notify Owner and Engineer in writing and shall, within 20 days after the event giving rise to such notification, provide another bond and surety, both of which must comply with the bond and surety requirements above.
- F. If Contractor has failed to obtain a required bond, Owner may exclude the Contractor from the Site and exercise Owner’s termination rights under Article 16.
- G. Upon request to Owner from any Subcontractor, Supplier, or other person or entity claiming to have furnished labor, services, materials, or equipment used in the performance of the Work, Owner shall provide a copy of the payment bond to such person or entity.
- H. Upon request to Contractor from any Subcontractor, Supplier, or other person or entity claiming to have furnished labor, services, materials, or equipment used in the performance of the Work, Contractor shall provide a copy of the payment bond to such person or entity.

6.02 *Insurance—General Provisions*

- A. Owner and Contractor shall obtain and maintain insurance as required in this article and in the Supplementary Conditions.
- B. All insurance required by the Contract to be purchased and maintained by Owner or Contractor shall be obtained from insurance companies that are duly licensed or authorized in the state or jurisdiction in which the Project is located to issue insurance policies for the required limits and coverages. Unless a different standard is indicated in the Supplementary Conditions, all companies that provide insurance policies required under this Contract shall have an A.M. Best rating of A-VII or better.
- C. Alternative forms of insurance coverage, including but not limited to self-insurance and “Occupational Accident and Excess Employer’s Indemnity Policies,” are not sufficient to meet the insurance requirements of this Contract, unless expressly allowed in the Supplementary Conditions.
- D. Contractor shall deliver to Owner, with copies to each additional insured identified in the Contract, certificates of insurance and endorsements establishing that Contractor has obtained and is maintaining the policies and coverages required by the Contract. Upon request by Owner or any other insured, Contractor shall also furnish other evidence of such required insurance, including but not limited to copies of policies, documentation of applicable self-insured retentions (if allowed) and deductibles, full disclosure of all relevant exclusions, and evidence of insurance required to be purchased and maintained by

Subcontractors or Suppliers. In any documentation furnished under this provision, Contractor, Subcontractors, and Suppliers may block out (redact) (1) any confidential premium or pricing information and (2) any wording specific to a project or jurisdiction other than those applicable to this Contract.

- E. Owner shall deliver to Contractor, with copies to each additional insured identified in the Contract, certificates of insurance and endorsements establishing that Owner has obtained and is maintaining the policies and coverages required of Owner by the Contract (if any). Upon request by Contractor or any other insured, Owner shall also provide other evidence of such required insurance (if any), including but not limited to copies of policies, documentation of applicable self-insured retentions (if allowed) and deductibles, and full disclosure of all relevant exclusions. In any documentation furnished under this provision, Owner may block out (redact) (1) any confidential premium or pricing information and (2) any wording specific to a project or jurisdiction other than those relevant to this Contract.
- F. Failure of Owner or Contractor to demand such certificates or other evidence of the other party's full compliance with these insurance requirements, or failure of Owner or Contractor to identify a deficiency in compliance from the evidence provided, will not be construed as a waiver of the other party's obligation to obtain and maintain such insurance.
- G. In addition to the liability insurance required to be provided by Contractor, the Owner, at Owner's option, may purchase and maintain Owner's own liability insurance. Owner's liability policies, if any, operate separately and independently from policies required to be provided by Contractor, and Contractor cannot rely upon Owner's liability policies for any of Contractor's obligations to the Owner, Engineer, or third parties.
- H. Contractor shall require:
 - 1. Subcontractors to purchase and maintain worker's compensation, commercial general liability, and other insurance that is appropriate for their participation in the Project, and to name as additional insureds Owner and Engineer (and any other individuals or entities identified in the Supplementary Conditions as additional insureds on Contractor's liability policies) on each Subcontractor's commercial general liability insurance policy; and
 - 2. Suppliers to purchase and maintain insurance that is appropriate for their participation in the Project.
- I. If either party does not purchase or maintain the insurance required of such party by the Contract, such party shall notify the other party in writing of such failure to purchase prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage.
- J. If Contractor has failed to obtain and maintain required insurance, Contractor's entitlement to enter or remain at the Site will end immediately, and Owner may impose an appropriate set-off against payment for any associated costs (including but not limited to the cost of purchasing necessary insurance coverage), and exercise Owner's termination rights under Article 16.
- K. Without prejudice to any other right or remedy, if a party has failed to obtain required insurance, the other party may elect (but is in no way obligated) to obtain equivalent insurance to protect such other party's interests at the expense of the party who was required to provide such coverage, and the Contract Price will be adjusted accordingly.

- L. Owner does not represent that insurance coverage and limits established in this Contract necessarily will be adequate to protect Contractor or Contractor's interests. Contractor is responsible for determining whether such coverage and limits are adequate to protect its interests, and for obtaining and maintaining any additional insurance that Contractor deems necessary.
- M. The insurance and insurance limits required herein will not be deemed as a limitation on Contractor's liability, or that of its Subcontractors or Suppliers, under the indemnities granted to Owner and other individuals and entities in the Contract or otherwise.
- N. All the policies of insurance required to be purchased and maintained under this Contract will contain a provision or endorsement that the coverage afforded will not be canceled, or renewal refused, until at least 10 days prior written notice has been given to the purchasing policyholder. Within three days of receipt of any such written notice, the purchasing policyholder shall provide a copy of the notice to each other insured and Engineer.

6.03 *Contractor's Insurance*

- A. *Required Insurance:* Contractor shall purchase and maintain Worker's Compensation, Commercial General Liability, and other insurance pursuant to the specific requirements of the Supplementary Conditions.
- B. *General Provisions:* The policies of insurance required by this Paragraph 6.03 as supplemented must:
 - 1. include at least the specific coverages required;
 - 2. be written for not less than the limits provided, or those required by Laws or Regulations, whichever is greater;
 - 3. remain in effect at least until the Work is complete (as set forth in Paragraph 15.06.D), and longer if expressly required elsewhere in this Contract, and at all times thereafter when Contractor may be correcting, removing, or replacing defective Work as a warranty or correction obligation, or otherwise, or returning to the Site to conduct other tasks arising from the Contract;
 - 4. apply with respect to the performance of the Work, whether such performance is by Contractor, any Subcontractor or Supplier, or by anyone directly or indirectly employed by any of them to perform any of the Work, or by anyone for whose acts any of them may be liable; and
 - 5. include all necessary endorsements to support the stated requirements.
- C. *Additional Insureds:* The Contractor's commercial general liability, automobile liability, employer's liability, umbrella or excess, pollution liability, and unmanned aerial vehicle liability policies, if required by this Contract, must:
 - 1. include and list as additional insureds Owner and Engineer, and any individuals or entities identified as additional insureds in the Supplementary Conditions;
 - 2. include coverage for the respective officers, directors, members, partners, employees, and consultants of all such additional insureds;
 - 3. afford primary coverage to these additional insureds for all claims covered thereby (including as applicable those arising from both ongoing and completed operations);

4. not seek contribution from insurance maintained by the additional insured; and
5. as to commercial general liability insurance, apply to additional insureds with respect to liability caused in whole or in part by Contractor's acts or omissions, or the acts and omissions of those working on Contractor's behalf, in the performance of Contractor's operations.

6.04 *Builder's Risk and Other Property Insurance*

- A. *Builder's Risk*: Unless otherwise provided in the Supplementary Conditions, Contractor shall purchase and maintain builder's risk insurance upon the Work on a completed value basis, in the amount of the Work's full insurable replacement cost (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by Laws and Regulations). The specific requirements applicable to the builder's risk insurance are set forth in the Supplementary Conditions.
- B. *Property Insurance for Facilities of Owner Where Work Will Occur*: Owner is responsible for obtaining and maintaining property insurance covering each existing structure, building, or facility in which any part of the Work will occur, or to which any part of the Work will attach or be adjoined. Such property insurance will be written on a special perils (all-risk) form, on a replacement cost basis, providing coverage consistent with that required for the builder's risk insurance, and will be maintained until the Work is complete, as set forth in Paragraph 15.06.D.
- C. *Property Insurance for Substantially Complete Facilities*: Promptly after Substantial Completion, and before actual occupancy or use of the substantially completed Work, Owner will obtain property insurance for such substantially completed Work, and maintain such property insurance at least until the Work is complete, as set forth in Paragraph 15.06.D. Such property insurance will be written on a special perils (all-risk) form, on a replacement cost basis, and provide coverage consistent with that required for the builder's risk insurance. The builder's risk insurance may terminate upon written confirmation of Owner's procurement of such property insurance.
- D. *Partial Occupancy or Use by Owner*: If Owner will occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work, as provided in Paragraph 15.04, then Owner (directly, if it is the purchaser of the builder's risk policy, or through Contractor) will provide advance notice of such occupancy or use to the builder's risk insurer, and obtain an endorsement consenting to the continuation of coverage prior to commencing such partial occupancy or use.
- E. *Insurance of Other Property; Additional Insurance*: If the express insurance provisions of the Contract do not require or address the insurance of a property item or interest, then the entity or individual owning such property item will be responsible for insuring it. If Contractor elects to obtain other special insurance to be included in or supplement the builder's risk or property insurance policies provided under this Paragraph 6.04, it may do so at Contractor's expense.

6.05 *Property Losses; Subrogation*

- A. The builder's risk insurance policy purchased and maintained in accordance with Paragraph 6.04 (or an installation floater policy if authorized by the Supplementary Conditions), will contain provisions to the effect that in the event of payment of any loss or damage the insurer will have no rights of recovery against any insureds thereunder, or against

Engineer or its consultants, or their officers, directors, members, partners, employees, agents, consultants, or subcontractors.

1. Owner and Contractor waive all rights against each other and the respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, for all losses and damages caused by, arising out of, or resulting from any of the perils, risks, or causes of loss covered by such policies and any other property insurance applicable to the Work; and, in addition, waive all such rights against Engineer, its consultants, all individuals or entities identified in the Supplementary Conditions as builder's risk or installation floater insureds, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, under such policies for losses and damages so caused.
 2. None of the above waivers extends to the rights that any party making such waiver may have to the proceeds of insurance held by Owner or Contractor as trustee or fiduciary, or otherwise payable under any policy so issued.
- B. Any property insurance policy maintained by Owner covering any loss, damage, or consequential loss to Owner's existing structures, buildings, or facilities in which any part of the Work will occur, or to which any part of the Work will attach or adjoin; to adjacent structures, buildings, or facilities of Owner; or to part or all of the completed or substantially completed Work, during partial occupancy or use pursuant to Paragraph 15.04, after Substantial Completion pursuant to Paragraph 15.03, or after final payment pursuant to Paragraph 15.06, will contain provisions to the effect that in the event of payment of any loss or damage the insurer will have no rights of recovery against any insureds thereunder, or against Contractor, Subcontractors, or Engineer, or the officers, directors, members, partners, employees, agents, consultants, or subcontractors of each and any of them, and that the insured is allowed to waive the insurer's rights of subrogation in a written contract executed prior to the loss, damage, or consequential loss.
1. Owner waives all rights against Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, for all losses and damages caused by, arising out of, or resulting from fire or any of the perils, risks, or causes of loss covered by such policies.
- C. The waivers in this Paragraph 6.05 include the waiver of rights due to business interruption, loss of use, or other consequential loss extending beyond direct physical loss or damage to Owner's property or the Work caused by, arising out of, or resulting from fire or other insured peril, risk, or cause of loss.
- D. Contractor shall be responsible for assuring that each Subcontract contains provisions whereby the Subcontractor waives all rights against Owner, Contractor, all individuals or entities identified in the Supplementary Conditions as insureds, the Engineer and its consultants, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, for all losses and damages caused by, arising out of, relating to, or resulting from fire or other peril, risk, or cause of loss covered by builder's risk insurance, installation floater, and any other property insurance applicable to the Work.

6.06 *Receipt and Application of Property Insurance Proceeds*

- A. Any insured loss under the builder's risk and other policies of property insurance required by Paragraph 6.04 will be adjusted and settled with the named insured that purchased the policy. Such named insured shall act as fiduciary for the other insureds, and give notice to such other insureds that adjustment and settlement of a claim is in progress. Any other insured may state its position regarding a claim for insured loss in writing within 15 days after notice of such claim.
- B. Proceeds for such insured losses may be made payable by the insurer either jointly to multiple insureds, or to the named insured that purchased the policy in its own right and as fiduciary for other insureds, subject to the requirements of any applicable mortgage clause. A named insured receiving insurance proceeds under the builder's risk and other policies of insurance required by Paragraph 6.04 shall maintain such proceeds in a segregated account, and distribute such proceeds in accordance with such agreement as the parties in interest may reach, or as otherwise required under the dispute resolution provisions of this Contract or applicable Laws and Regulations.
- C. If no other special agreement is reached, Contractor shall repair or replace the damaged Work, using allocated insurance proceeds.

ARTICLE 7—CONTRACTOR'S RESPONSIBILITIES

7.01 *Contractor's Means and Methods of Construction*

- A. Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction.
- B. If the Contract Documents note, or Contractor determines, that professional engineering or other design services are needed to carry out Contractor's responsibilities for construction means, methods, techniques, sequences, and procedures, or for Site safety, then Contractor shall cause such services to be provided by a properly licensed design professional, at Contractor's expense. Such services are not Owner-delegated professional design services under this Contract, and neither Owner nor Engineer has any responsibility with respect to (1) Contractor's determination of the need for such services, (2) the qualifications or licensing of the design professionals retained or employed by Contractor, (3) the performance of such services, or (4) any errors, omissions, or defects in such services.

7.02 *Supervision and Superintendence*

- A. Contractor shall supervise, inspect, and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents.
- B. At all times during the progress of the Work, Contractor shall assign a competent resident superintendent who will not be replaced without written notice to Owner and Engineer except under extraordinary circumstances.

7.03 *Labor; Working Hours*

- A. Contractor shall provide competent, suitably qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. Contractor shall maintain good discipline and order at the Site.

- B. Contractor shall be fully responsible to Owner and Engineer for all acts and omissions of Contractor's employees; of Suppliers and Subcontractors, and their employees; and of any other individuals or entities performing or furnishing any of the Work, just as Contractor is responsible for Contractor's own acts and omissions.
- C. Except as otherwise required for the safety or protection of persons or the Work or property at the Site or adjacent thereto, and except as otherwise stated in the Contract Documents, all Work at the Site will be performed during regular working hours, Monday through Friday. Contractor will not perform Work on a Saturday, Sunday, or any legal holiday. Contractor may perform Work outside regular working hours or on Saturdays, Sundays, or legal holidays only with Owner's written consent, which will not be unreasonably withheld.

7.04 *Services, Materials, and Equipment*

- A. Unless otherwise specified in the Contract Documents, Contractor shall provide and assume full responsibility for all services, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities, and all other facilities and incidentals necessary for the performance, testing, start up, and completion of the Work, whether or not such items are specifically called for in the Contract Documents.
- B. All materials and equipment incorporated into the Work must be new and of good quality, except as otherwise provided in the Contract Documents. All special warranties and guarantees required by the Specifications will expressly run to the benefit of Owner. If required by Engineer, Contractor shall furnish satisfactory evidence (including reports of required tests) as to the source, kind, and quality of materials and equipment.
- C. All materials and equipment must be stored, applied, installed, connected, erected, protected, used, cleaned, and conditioned in accordance with instructions of the applicable Supplier, except as otherwise may be provided in the Contract Documents.

7.05 *"Or Equals"*

- A. *Contractor's Request; Governing Criteria:* Whenever an item of equipment or material is specified or described in the Contract Documents by using the names of one or more proprietary items or specific Suppliers, the Contract Price has been based upon Contractor furnishing such item as specified. The specification or description of such an item is intended to establish the type, function, appearance, and quality required. Unless the specification or description contains or is followed by words reading that no like, equivalent, or "or equal" item is permitted, Contractor may request that Engineer authorize the use of other items of equipment or material, or items from other proposed Suppliers, under the circumstances described below.
 - 1. If Engineer in its sole discretion determines that an item of equipment or material proposed by Contractor is functionally equal to that named and sufficiently similar so that no change in related Work will be required, Engineer will deem it an "or equal" item. For the purposes of this paragraph, a proposed item of equipment or material will be considered functionally equal to an item so named if:
 - a. in the exercise of reasonable judgment Engineer determines that the proposed item:
 - 1) is at least equal in materials of construction, quality, durability, appearance, strength, and design characteristics;

- 2) will reliably perform at least equally well the function and achieve the results imposed by the design concept of the completed Project as a functioning whole;
 - 3) has a proven record of performance and availability of responsive service; and
 - 4) is not objectionable to Owner.
- b. Contractor certifies that, if the proposed item is approved and incorporated into the Work:
- 1) there will be no increase in cost to the Owner or increase in Contract Times; and
 - 2) the item will conform substantially to the detailed requirements of the item named in the Contract Documents.
- B. *Contractor's Expense*: Contractor shall provide all data in support of any proposed "or equal" item at Contractor's expense.
- C. *Engineer's Evaluation and Determination*: Engineer will be allowed a reasonable time to evaluate each "or-equal" request. Engineer may require Contractor to furnish additional data about the proposed "or-equal" item. Engineer will be the sole judge of acceptability. No "or-equal" item will be ordered, furnished, installed, or utilized until Engineer's review is complete and Engineer determines that the proposed item is an "or-equal," which will be evidenced by an approved Shop Drawing or other written communication. Engineer will advise Contractor in writing of any negative determination.
- D. *Effect of Engineer's Determination*: Neither approval nor denial of an "or-equal" request will result in any change in Contract Price. The Engineer's denial of an "or-equal" request will be final and binding, and may not be reversed through an appeal under any provision of the Contract.
- E. *Treatment as a Substitution Request*: If Engineer determines that an item of equipment or material proposed by Contractor does not qualify as an "or-equal" item, Contractor may request that Engineer consider the item a proposed substitute pursuant to Paragraph 7.06.

7.06 *Substitutes*

- A. *Contractor's Request; Governing Criteria*: Unless the specification or description of an item of equipment or material required to be furnished under the Contract Documents contains or is followed by words reading that no substitution is permitted, Contractor may request that Engineer authorize the use of other items of equipment or material under the circumstances described below. To the extent possible such requests must be made before commencement of related construction at the Site.
1. Contractor shall submit sufficient information as provided below to allow Engineer to determine if the item of material or equipment proposed is functionally equivalent to that named and an acceptable substitute therefor. Engineer will not accept requests for review of proposed substitute items of equipment or material from anyone other than Contractor.
 2. The requirements for review by Engineer will be as set forth in Paragraph 7.06.B, as supplemented by the Specifications, and as Engineer may decide is appropriate under the circumstances.

3. Contractor shall make written application to Engineer for review of a proposed substitute item of equipment or material that Contractor seeks to furnish or use. The application:
 - a. will certify that the proposed substitute item will:
 - 1) perform adequately the functions and achieve the results called for by the general design;
 - 2) be similar in substance to the item specified; and
 - 3) be suited to the same use as the item specified.
 - b. will state:
 - 1) the extent, if any, to which the use of the proposed substitute item will necessitate a change in Contract Times;
 - 2) whether use of the proposed substitute item in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with Owner for other work on the Project) to adapt the design to the proposed substitute item; and
 - 3) whether incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty.
 - c. will identify:
 - 1) all variations of the proposed substitute item from the item specified; and
 - 2) available engineering, sales, maintenance, repair, and replacement services.
 - d. will contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including but not limited to changes in Contract Price, shared savings, costs of redesign, and claims of other contractors affected by any resulting change.
- B. *Engineer's Evaluation and Determination*: Engineer will be allowed a reasonable time to evaluate each substitute request, and to obtain comments and direction from Owner. Engineer may require Contractor to furnish additional data about the proposed substitute item. Engineer will be the sole judge of acceptability. No substitute will be ordered, furnished, installed, or utilized until Engineer's review is complete and Engineer determines that the proposed item is an acceptable substitute. Engineer's determination will be evidenced by a Field Order or a proposed Change Order accounting for the substitution itself and all related impacts, including changes in Contract Price or Contract Times. Engineer will advise Contractor in writing of any negative determination.
- C. *Special Guarantee*: Owner may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute.
- D. *Reimbursement of Engineer's Cost*: Engineer will record Engineer's costs in evaluating a substitute proposed or submitted by Contractor. Whether or not Engineer approves a substitute so proposed or submitted by Contractor, Contractor shall reimburse Owner for the reasonable charges of Engineer for evaluating each such proposed substitute. Contractor shall also reimburse Owner for the reasonable charges of Engineer for making changes in the Contract Documents (or in the provisions of any other direct contract with Owner) resulting from the acceptance of each proposed substitute.

- E. *Contractor's Expense*: Contractor shall provide all data in support of any proposed substitute at Contractor's expense.
- F. *Effect of Engineer's Determination*: If Engineer approves the substitution request, Contractor shall execute the proposed Change Order and proceed with the substitution. The Engineer's denial of a substitution request will be final and binding, and may not be reversed through an appeal under any provision of the Contract. Contractor may challenge the scope of reimbursement costs imposed under Paragraph 7.06.D, by timely submittal of a Change Proposal.

7.07 *Concerning Subcontractors and Suppliers*

- A. Contractor may retain Subcontractors and Suppliers for the performance of parts of the Work. Such Subcontractors and Suppliers must be acceptable to Owner. The Contractor's retention of a Subcontractor or Supplier for the performance of parts of the Work will not relieve Contractor's obligation to Owner to perform and complete the Work in accordance with the Contract Documents.
- B. Contractor shall retain specific Subcontractors and Suppliers for the performance of designated parts of the Work if required by the Contract to do so.
- C. Subsequent to the submittal of Contractor's Bid or final negotiation of the terms of the Contract, Owner may not require Contractor to retain any Subcontractor or Supplier to furnish or perform any of the Work against which Contractor has reasonable objection.
- D. Prior to entry into any binding subcontract or purchase order, Contractor shall submit to Owner the identity of the proposed Subcontractor or Supplier (unless Owner has already deemed such proposed Subcontractor or Supplier acceptable during the bidding process or otherwise). Such proposed Subcontractor or Supplier shall be deemed acceptable to Owner unless Owner raises a substantive, reasonable objection within 5 days.
- E. Owner may require the replacement of any Subcontractor or Supplier. Owner also may require Contractor to retain specific replacements; provided, however, that Owner may not require a replacement to which Contractor has a reasonable objection. If Contractor has submitted the identity of certain Subcontractors or Suppliers for acceptance by Owner, and Owner has accepted it (either in writing or by failing to make written objection thereto), then Owner may subsequently revoke the acceptance of any such Subcontractor or Supplier so identified solely on the basis of substantive, reasonable objection after due investigation. Contractor shall submit an acceptable replacement for the rejected Subcontractor or Supplier.
- F. If Owner requires the replacement of any Subcontractor or Supplier retained by Contractor to perform any part of the Work, then Contractor shall be entitled to an adjustment in Contract Price or Contract Times, with respect to the replacement; and Contractor shall initiate a Change Proposal for such adjustment within 30 days of Owner's requirement of replacement.
- G. No acceptance by Owner of any such Subcontractor or Supplier, whether initially or as a replacement, will constitute a waiver of the right of Owner to the completion of the Work in accordance with the Contract Documents.

- H. On a monthly basis, Contractor shall submit to Engineer a complete list of all Subcontractors and Suppliers having a direct contract with Contractor, and of all other Subcontractors and Suppliers known to Contractor at the time of submittal.
- I. Contractor shall be solely responsible for scheduling and coordinating the work of Subcontractors and Suppliers.
- J. The divisions and sections of the Specifications and the identifications of any Drawings do not control Contractor in dividing the Work among Subcontractors or Suppliers, or in delineating the Work to be performed by any specific trade.
- K. All Work performed for Contractor by a Subcontractor or Supplier must be pursuant to an appropriate contractual agreement that specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract for the benefit of Owner and Engineer.
- L. Owner may furnish to any Subcontractor or Supplier, to the extent practicable, information about amounts paid to Contractor for Work performed for Contractor by the Subcontractor or Supplier.
- M. Contractor shall restrict all Subcontractors and Suppliers from communicating with Engineer or Owner, except through Contractor or in case of an emergency, or as otherwise expressly allowed in this Contract.

7.08 *Patent Fees and Royalties*

- A. Contractor shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product, or device which is the subject of patent rights or copyrights held by others. If an invention, design, process, product, or device is specified in the Contract Documents for use in the performance of the Work and if, to the actual knowledge of Owner or Engineer, its use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights will be disclosed in the Contract Documents.
- B. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, and its officers, directors, members, partners, employees, agents, consultants, and subcontractors, from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device specified in the Contract Documents, but not identified as being subject to payment of any license fee or royalty to others required by patent rights or copyrights.
- C. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device not specified in the Contract Documents.

7.09 *Permits*

- A. Unless otherwise provided in the Contract Documents, Contractor shall obtain and pay for all construction permits, licenses, and certificates of occupancy. Owner shall assist Contractor, when necessary, in obtaining such permits and licenses. Contractor shall pay all governmental charges and inspection fees necessary for the prosecution of the Work which are applicable at the time of the submission of Contractor's Bid (or when Contractor became bound under a negotiated contract). Owner shall pay all charges of utility owners for connections for providing permanent service to the Work.

7.10 *Taxes*

- A. Contractor shall pay all sales, consumer, use, and other similar taxes required to be paid by Contractor in accordance with the Laws and Regulations of the place of the Project which are applicable during the performance of the Work.

7.11 *Laws and Regulations*

- A. Contractor shall give all notices required by and shall comply with all Laws and Regulations applicable to the performance of the Work. Neither Owner nor Engineer shall be responsible for monitoring Contractor's compliance with any Laws or Regulations.
- B. If Contractor performs any Work or takes any other action knowing or having reason to know that it is contrary to Laws or Regulations, Contractor shall bear all resulting costs and losses, and shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such Work or other action. It is not Contractor's responsibility to make certain that the Work described in the Contract Documents is in accordance with Laws and Regulations, but this does not relieve Contractor of its obligations under Paragraph 3.03.
- C. Owner or Contractor may give written notice to the other party of any changes after the submission of Contractor's Bid (or after the date when Contractor became bound under a negotiated contract) in Laws or Regulations having an effect on the cost or time of performance of the Work, including but not limited to changes in Laws or Regulations having an effect on procuring permits and on sales, use, value-added, consumption, and other similar taxes. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times resulting from such changes, then within 30 days of such written notice Contractor may submit a Change Proposal, or Owner may initiate a Claim.

7.12 *Record Documents*

- A. Contractor shall maintain in a safe place at the Site one printed record copy of all Drawings, Specifications, Addenda, Change Orders, Work Change Directives, Field Orders, written interpretations and clarifications, and approved Shop Drawings. Contractor shall keep such record documents in good order and annotate them to show changes made during construction. These record documents, together with all approved Samples, will be available to Engineer for reference. Upon completion of the Work, Contractor shall deliver these record documents to Engineer.

7.13 *Safety and Protection*

- A. Contractor shall be solely responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the Work. Such responsibility does not relieve Subcontractors of their responsibility for the safety of persons or property in the performance of their work, nor for compliance with applicable safety Laws and Regulations.
- B. Contractor shall designate a qualified and experienced safety representative whose duties and responsibilities are the prevention of Work-related accidents and the maintenance and supervision of safety precautions and programs.
- C. Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury, or loss to:
 - 1. all persons on the Site or who may be affected by the Work;
 - 2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and
 - 3. other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, other work in progress, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course of construction.
- D. All damage, injury, or loss to any property referred to in Paragraph 7.13.C.2 or 7.13.C.3 caused, directly or indirectly, in whole or in part, by Contractor, any Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, shall be remedied by Contractor at its expense (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of Owner or Engineer or anyone employed by any of them, or anyone for whose acts any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of Contractor or any Subcontractor, Supplier, or other individual or entity directly or indirectly employed by any of them).
- E. Contractor shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection.
- F. Contractor shall notify Owner; the owners of adjacent property; the owners of Underground Facilities and other utilities (if the identity of such owners is known to Contractor); and other contractors and utility owners performing work at or adjacent to the Site, in writing, when Contractor knows that prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property or work in progress.
- G. Contractor shall comply with the applicable requirements of Owner's safety programs, if any. Any Owner's safety programs that are applicable to the Work are identified or included in the Supplementary Conditions or Specifications.
- H. Contractor shall inform Owner and Engineer of the specific requirements of Contractor's safety program with which Owner's and Engineer's employees and representatives must comply while at the Site.

- I. Contractor's duties and responsibilities for safety and protection will continue until all the Work is completed, Engineer has issued a written notice to Owner and Contractor in accordance with Paragraph 15.06.C that the Work is acceptable, and Contractor has left the Site (except as otherwise expressly provided in connection with Substantial Completion).
- J. Contractor's duties and responsibilities for safety and protection will resume whenever Contractor or any Subcontractor or Supplier returns to the Site to fulfill warranty or correction obligations, or to conduct other tasks arising from the Contract Documents.

7.14 *Hazard Communication Programs*

- A. Contractor shall be responsible for coordinating any exchange of safety data sheets (formerly known as material safety data sheets) or other hazard communication information required to be made available to or exchanged between or among employers at the Site in accordance with Laws or Regulations.

7.15 *Emergencies*

- A. In emergencies affecting the safety or protection of persons or the Work or property at the Site or adjacent thereto, Contractor is obligated to act to prevent damage, injury, or loss. Contractor shall give Engineer prompt written notice if Contractor believes that any significant changes in the Work or variations from the Contract Documents have been caused by an emergency, or are required as a result of Contractor's response to an emergency. If Engineer determines that a change in the Contract Documents is required because of an emergency or Contractor's response, a Work Change Directive or Change Order will be issued.

7.16 *Submittals*

A. *Shop Drawing and Sample Requirements*

- 1. Before submitting a Shop Drawing or Sample, Contractor shall:
 - a. review and coordinate the Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents;
 - b. determine and verify:
 - 1) all field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information with respect to the Submittal;
 - 2) the suitability of all materials and equipment offered with respect to the indicated application, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work; and
 - 3) all information relative to Contractor's responsibilities for means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto;
 - c. confirm that the Submittal is complete with respect to all related data included in the Submittal.
- 2. Each Shop Drawing or Sample must bear a stamp or specific written certification that Contractor has satisfied Contractor's obligations under the Contract Documents with respect to Contractor's review of that Submittal, and that Contractor approves the Submittal.

3. With each Shop Drawing or Sample, Contractor shall give Engineer specific written notice of any variations that the Submittal may have from the requirements of the Contract Documents. This notice must be set forth in a written communication separate from the Submittal; and, in addition, in the case of a Shop Drawing by a specific notation made on the Shop Drawing itself.
- B. *Submittal Procedures for Shop Drawings and Samples:* Contractor shall label and submit Shop Drawings and Samples to Engineer for review and approval in accordance with the accepted Schedule of Submittals.
1. *Shop Drawings*
 - a. Contractor shall submit the number of copies required in the Specifications.
 - b. Data shown on the Shop Drawings must be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to show Engineer the services, materials, and equipment Contractor proposes to provide, and to enable Engineer to review the information for the limited purposes required by Paragraph 7.16.C.
 2. *Samples*
 - a. Contractor shall submit the number of Samples required in the Specifications.
 - b. Contractor shall clearly identify each Sample as to material, Supplier, pertinent data such as catalog numbers, the use for which intended and other data as Engineer may require to enable Engineer to review the Submittal for the limited purposes required by Paragraph 7.16.C.
 3. Where a Shop Drawing or Sample is required by the Contract Documents or the Schedule of Submittals, any related Work performed prior to Engineer's review and approval of the pertinent submittal will be at the sole expense and responsibility of Contractor.
- C. *Engineer's Review of Shop Drawings and Samples*
1. Engineer will provide timely review of Shop Drawings and Samples in accordance with the accepted Schedule of Submittals. Engineer's review and approval will be only to determine if the items covered by the Submittals will, after installation or incorporation in the Work, comply with the requirements of the Contract Documents, and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.
 2. Engineer's review and approval will not extend to means, methods, techniques, sequences, or procedures of construction, or to safety precautions or programs incident thereto.
 3. Engineer's review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.
 4. Engineer's review and approval of a Shop Drawing or Sample will not relieve Contractor from responsibility for any variation from the requirements of the Contract Documents unless Contractor has complied with the requirements of Paragraph 7.16.A.3 and Engineer has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample. Engineer will

document any such approved variation from the requirements of the Contract Documents in a Field Order or other appropriate Contract modification.

5. Engineer's review and approval of a Shop Drawing or Sample will not relieve Contractor from responsibility for complying with the requirements of Paragraphs 7.16.A and B.
6. Engineer's review and approval of a Shop Drawing or Sample, or of a variation from the requirements of the Contract Documents, will not, under any circumstances, change the Contract Times or Contract Price, unless such changes are included in a Change Order.
7. Neither Engineer's receipt, review, acceptance, or approval of a Shop Drawing or Sample will result in such item becoming a Contract Document.
8. Contractor shall perform the Work in compliance with the requirements and commitments set forth in approved Shop Drawings and Samples, subject to the provisions of Paragraph 7.16.C.4.

D. Resubmittal Procedures for Shop Drawings and Samples

1. Contractor shall make corrections required by Engineer and shall return the required number of corrected copies of Shop Drawings and submit, as required, new Samples for review and approval. Contractor shall direct specific attention in writing to revisions other than the corrections called for by Engineer on previous Submittals.
2. Contractor shall furnish required Shop Drawing and Sample submittals with sufficient information and accuracy to obtain required approval of an item with no more than two resubmittals. Engineer will record Engineer's time for reviewing a third or subsequent resubmittal of a Shop Drawing or Sample, and Contractor shall be responsible for Engineer's charges to Owner for such time. Owner may impose a set-off against payments due Contractor to secure reimbursement for such charges.
3. If Contractor requests a change of a previously approved Shop Drawing or Sample, Contractor shall be responsible for Engineer's charges to Owner for its review time, and Owner may impose a set-off against payments due Contractor to secure reimbursement for such charges, unless the need for such change is beyond the control of Contractor.

E. Submittals Other than Shop Drawings, Samples, and Owner-Delegated Designs

1. The following provisions apply to all Submittals other than Shop Drawings, Samples, and Owner-delegated designs:
 - a. Contractor shall submit all such Submittals to the Engineer in accordance with the Schedule of Submittals and pursuant to the applicable terms of the Contract Documents.
 - b. Engineer will provide timely review of all such Submittals in accordance with the Schedule of Submittals and return such Submittals with a notation of either Accepted or Not Accepted. Any such Submittal that is not returned within the time established in the Schedule of Submittals will be deemed accepted.
 - c. Engineer's review will be only to determine if the Submittal is acceptable under the requirements of the Contract Documents as to general form and content of the Submittal.

- d. If any such Submittal is not accepted, Contractor shall confer with Engineer regarding the reason for the non-acceptance, and resubmit an acceptable document.
 2. Procedures for the submittal and acceptance of the Progress Schedule, the Schedule of Submittals, and the Schedule of Values are set forth in Paragraphs 2.03, 2.04, and 2.05.
- F. Owner-delegated Designs: Submittals pursuant to Owner-delegated designs are governed by the provisions of Paragraph 7.19.

7.17 *Contractor's General Warranty and Guarantee*

- A. Contractor warrants and guarantees to Owner that all Work will be in accordance with the Contract Documents and will not be defective. Engineer is entitled to rely on Contractor's warranty and guarantee.
- B. Owner's rights under this warranty and guarantee are in addition to, and are not limited by, Owner's rights under the correction period provisions of Paragraph 15.08. The time in which Owner may enforce its warranty and guarantee rights under this Paragraph 7.17 is limited only by applicable Laws and Regulations restricting actions to enforce such rights; provided, however, that after the end of the correction period under Paragraph 15.08:
1. Owner shall give Contractor written notice of any defective Work within 60 days of the discovery that such Work is defective; and
 2. Such notice will be deemed the start of an event giving rise to a Claim under Paragraph 12.01.B, such that any related Claim must be brought within 30 days of the notice.
- C. Contractor's warranty and guarantee hereunder excludes defects or damage caused by:
1. abuse, or improper modification, maintenance, or operation, by persons other than Contractor, Subcontractors, Suppliers, or any other individual or entity for whom Contractor is responsible; or
 2. normal wear and tear under normal usage.
- D. Contractor's obligation to perform and complete the Work in accordance with the Contract Documents is absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents, a release of Contractor's obligation to perform the Work in accordance with the Contract Documents, or a release of Owner's warranty and guarantee rights under this Paragraph 7.17:
1. Observations by Engineer;
 2. Recommendation by Engineer or payment by Owner of any progress or final payment;
 3. The issuance of a certificate of Substantial Completion by Engineer or any payment related thereto by Owner;
 4. Use or occupancy of the Work or any part thereof by Owner;
 5. Any review and approval of a Shop Drawing or Sample submittal;
 6. The issuance of a notice of acceptability by Engineer;
 7. The end of the correction period established in Paragraph 15.08;
 8. Any inspection, test, or approval by others; or

9. Any correction of defective Work by Owner.
- E. If the Contract requires the Contractor to accept the assignment of a contract entered into by Owner, then the specific warranties, guarantees, and correction obligations contained in the assigned contract will govern with respect to Contractor's performance obligations to Owner for the Work described in the assigned contract.

7.18 *Indemnification*

- A. To the fullest extent permitted by Laws and Regulations, and in addition to any other obligations of Contractor under the Contract or otherwise, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, from losses, damages, costs, and judgments (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court or arbitration or other dispute resolution costs) arising from third-party claims or actions relating to or resulting from the performance or furnishing of the Work, provided that any such claim, action, loss, cost, judgment or damage is attributable to bodily injury, sickness, disease, or death, or to damage to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom, but only to the extent caused by any negligent act or omission of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable.
- B. In any and all claims against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, by any employee (or the survivor or personal representative of such employee) of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation under Paragraph 7.18.A will not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for Contractor or any such Subcontractor, Supplier, or other individual or entity under workers' compensation acts, disability benefit acts, or other employee benefit acts.

7.19 *Delegation of Professional Design Services*

- A. Owner may require Contractor to provide professional design services for a portion of the Work by express delegation in the Contract Documents. Such delegation will specify the performance and design criteria that such services must satisfy, and the Submittals that Contractor must furnish to Engineer with respect to the Owner-delegated design.
- B. Contractor shall cause such Owner-delegated professional design services to be provided pursuant to the professional standard of care by a properly licensed design professional, whose signature and seal must appear on all drawings, calculations, specifications, certifications, and Submittals prepared by such design professional. Such design professional must issue all certifications of design required by Laws and Regulations.
- C. If a Shop Drawing or other Submittal related to the Owner-delegated design is prepared by Contractor, a Subcontractor, or others for submittal to Engineer, then such Shop Drawing or other Submittal must bear the written approval of Contractor's design professional when submitted by Contractor to Engineer.

- D. Owner and Engineer shall be entitled to rely upon the adequacy, accuracy, and completeness of the services, certifications, and approvals performed or provided by the design professionals retained or employed by Contractor under an Owner-delegated design, subject to the professional standard of care and the performance and design criteria stated in the Contract Documents.
- E. Pursuant to this Paragraph 7.19, Engineer's review, approval, and other determinations regarding design drawings, calculations, specifications, certifications, and other Submittals furnished by Contractor pursuant to an Owner-delegated design will be only for the following limited purposes:
 - 1. Checking for conformance with the requirements of this Paragraph 7.19;
 - 2. Confirming that Contractor (through its design professionals) has used the performance and design criteria specified in the Contract Documents; and
 - 3. Establishing that the design furnished by Contractor is consistent with the design concept expressed in the Contract Documents.
- F. Contractor shall not be responsible for the adequacy of performance or design criteria specified by Owner or Engineer.
- G. Contractor is not required to provide professional services in violation of applicable Laws and Regulations.

ARTICLE 8—OTHER WORK AT THE SITE

8.01 *Other Work*

- A. In addition to and apart from the Work under the Contract Documents, the Owner may perform other work at or adjacent to the Site. Such other work may be performed by Owner's employees, or through contracts between the Owner and third parties. Owner may also arrange to have third-party utility owners perform work on their utilities and facilities at or adjacent to the Site.
- B. If Owner performs other work at or adjacent to the Site with Owner's employees, or through contracts for such other work, then Owner shall give Contractor written notice thereof prior to starting any such other work. If Owner has advance information regarding the start of any third-party utility work that Owner has arranged to take place at or adjacent to the Site, Owner shall provide such information to Contractor.
- C. Contractor shall afford proper and safe access to the Site to each contractor that performs such other work, each utility owner performing other work, and Owner, if Owner is performing other work with Owner's employees, and provide a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work.
- D. Contractor shall do all cutting, fitting, and patching of the Work that may be required to properly connect or otherwise make its several parts come together and properly integrate with such other work. Contractor shall not endanger any work of others by cutting, excavating, or otherwise altering such work; provided, however, that Contractor may cut or alter others' work with the written consent of Engineer and the others whose work will be affected.

- E. If the proper execution or results of any part of Contractor's Work depends upon work performed by others, Contractor shall inspect such other work and promptly report to Engineer in writing any delays, defects, or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of Contractor's Work. Contractor's failure to so report will constitute an acceptance of such other work as fit and proper for integration with Contractor's Work except for latent defects and deficiencies in such other work.
- F. The provisions of this article are not applicable to work that is performed by third-party utilities or other third-party entities without a contract with Owner, or that is performed without having been arranged by Owner. If such work occurs, then any related delay, disruption, or interference incurred by Contractor is governed by the provisions of Paragraph 4.05.C.3.

8.02 *Coordination*

- A. If Owner intends to contract with others for the performance of other work at or adjacent to the Site, to perform other work at or adjacent to the Site with Owner's employees, or to arrange to have utility owners perform work at or adjacent to the Site, the following will be set forth in the Supplementary Conditions or provided to Contractor prior to the start of any such other work:
 - 1. The identity of the individual or entity that will have authority and responsibility for coordination of the activities among the various contractors;
 - 2. An itemization of the specific matters to be covered by such authority and responsibility; and
 - 3. The extent of such authority and responsibilities.
- B. Unless otherwise provided in the Supplementary Conditions, Owner shall have sole authority and responsibility for such coordination.

8.03 *Legal Relationships*

- A. If, in the course of performing other work for Owner at or adjacent to the Site, the Owner's employees, any other contractor working for Owner, or any utility owner that Owner has arranged to perform work, causes damage to the Work or to the property of Contractor or its Subcontractors, or delays, disrupts, interferes with, or increases the scope or cost of the performance of the Work, through actions or inaction, then Contractor shall be entitled to an equitable adjustment in the Contract Price or the Contract Times. Contractor must submit any Change Proposal seeking an equitable adjustment in the Contract Price or the Contract Times under this paragraph within 30 days of the damaging, delaying, disrupting, or interfering event. The entitlement to, and extent of, any such equitable adjustment will take into account information (if any) regarding such other work that was provided to Contractor in the Contract Documents prior to the submittal of the Bid or the final negotiation of the terms of the Contract, and any remedies available to Contractor under Laws or Regulations concerning utility action or inaction. When applicable, any such equitable adjustment in Contract Price will be conditioned on Contractor assigning to Owner all Contractor's rights against such other contractor or utility owner with respect to the damage, delay, disruption, or interference that is the subject of the adjustment. Contractor's entitlement to an adjustment of the Contract Times or Contract Price is subject to the provisions of Paragraphs 4.05.D and 4.05.E.

- B. Contractor shall take reasonable and customary measures to avoid damaging, delaying, disrupting, or interfering with the work of Owner, any other contractor, or any utility owner performing other work at or adjacent to the Site.
 - 1. If Contractor fails to take such measures and as a result damages, delays, disrupts, or interferes with the work of any such other contractor or utility owner, then Owner may impose a set-off against payments due Contractor, and assign to such other contractor or utility owner the Owner's contractual rights against Contractor with respect to the breach of the obligations set forth in this Paragraph 8.03.B.
 - 2. When Owner is performing other work at or adjacent to the Site with Owner's employees, Contractor shall be liable to Owner for damage to such other work, and for the reasonable direct delay, disruption, and interference costs incurred by Owner as a result of Contractor's failure to take reasonable and customary measures with respect to Owner's other work. In response to such damage, delay, disruption, or interference, Owner may impose a set-off against payments due Contractor.
- C. If Contractor damages, delays, disrupts, or interferes with the work of any other contractor, or any utility owner performing other work at or adjacent to the Site, through Contractor's failure to take reasonable and customary measures to avoid such impacts, or if any claim arising out of Contractor's actions, inactions, or negligence in performance of the Work at or adjacent to the Site is made by any such other contractor or utility owner against Contractor, Owner, or Engineer, then Contractor shall (1) promptly attempt to settle the claim as to all parties through negotiations with such other contractor or utility owner, or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law, and (2) indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against any such claims, and against all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such damage, delay, disruption, or interference.

ARTICLE 9—OWNER'S RESPONSIBILITIES

9.01 *Communications to Contractor*

- A. Except as otherwise provided in these General Conditions, Owner shall issue all communications to Contractor through Engineer.

9.02 *Replacement of Engineer*

- A. Owner may at its discretion appoint an engineer to replace Engineer, provided Contractor makes no reasonable objection to the replacement engineer. The replacement engineer's status under the Contract Documents will be that of the former Engineer.

9.03 *Furnish Data*

- A. Owner shall promptly furnish the data required of Owner under the Contract Documents.

9.04 *Pay When Due*

- A. Owner shall make payments to Contractor when they are due as provided in the Agreement.

- 9.05 *Lands and Easements; Reports, Tests, and Drawings*
- A. Owner's duties with respect to providing lands and easements are set forth in Paragraph 5.01.
 - B. Owner's duties with respect to providing engineering surveys to establish reference points are set forth in Paragraph 4.03.
 - C. Article 5 refers to Owner's identifying and making available to Contractor copies of reports of explorations and tests of conditions at the Site, and drawings of physical conditions relating to existing surface or subsurface structures at the Site.
- 9.06 *Insurance*
- A. Owner's responsibilities, if any, with respect to purchasing and maintaining liability and property insurance are set forth in Article 6.
- 9.07 *Change Orders*
- A. Owner's responsibilities with respect to Change Orders are set forth in Article 11.
- 9.08 *Inspections, Tests, and Approvals*
- A. Owner's responsibility with respect to certain inspections, tests, and approvals is set forth in Paragraph 14.02.B.
- 9.09 *Limitations on Owner's Responsibilities*
- A. The Owner shall not supervise, direct, or have control or authority over, nor be responsible for, Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Owner will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.
- 9.10 *Undisclosed Hazardous Environmental Condition*
- A. Owner's responsibility in respect to an undisclosed Hazardous Environmental Condition is set forth in Paragraph 5.06.
- 9.11 *Evidence of Financial Arrangements*
- A. Upon request of Contractor, Owner shall furnish Contractor reasonable evidence that financial arrangements have been made to satisfy Owner's obligations under the Contract (including obligations under proposed changes in the Work).
- 9.12 *Safety Programs*
- A. While at the Site, Owner's employees and representatives shall comply with the specific applicable requirements of Contractor's safety programs of which Owner has been informed.
 - B. Owner shall furnish copies of any applicable Owner safety programs to Contractor.

ARTICLE 10—ENGINEER'S STATUS DURING CONSTRUCTION

10.01 *Owner's Representative*

- A. Engineer will be Owner's representative during the construction period. The duties and responsibilities and the limitations of authority of Engineer as Owner's representative during construction are set forth in the Contract.

10.02 *Visits to Site*

- A. Engineer will make visits to the Site at intervals appropriate to the various stages of construction as Engineer deems necessary in order to observe, as an experienced and qualified design professional, the progress that has been made and the quality of the various aspects of Contractor's executed Work. Based on information obtained during such visits and observations, Engineer, for the benefit of Owner, will determine, in general, if the Work is proceeding in accordance with the Contract Documents. Engineer will not be required to make exhaustive or continuous inspections on the Site to check the quality or quantity of the Work. Engineer's efforts will be directed toward providing for Owner a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On the basis of such visits and observations, Engineer will keep Owner informed of the progress of the Work and will endeavor to guard Owner against defective Work.
- B. Engineer's visits and observations are subject to all the limitations on Engineer's authority and responsibility set forth in Paragraph 10.07. Particularly, but without limitation, during or as a result of Engineer's visits or observations of Contractor's Work, Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work.

10.03 *Resident Project Representative*

- A. If Owner and Engineer have agreed that Engineer will furnish a Resident Project Representative to represent Engineer at the Site and assist Engineer in observing the progress and quality of the Work, then the authority and responsibilities of any such Resident Project Representative will be as provided in the Supplementary Conditions, and limitations on the responsibilities thereof will be as provided in the Supplementary Conditions and in Paragraph 10.07.
- B. If Owner designates an individual or entity who is not Engineer's consultant, agent, or employee to represent Owner at the Site, then the responsibilities and authority of such individual or entity will be as provided in the Supplementary Conditions.

10.04 *Engineer's Authority*

- A. Engineer has the authority to reject Work in accordance with Article 14.
- B. Engineer's authority as to Submittals is set forth in Paragraph 7.16.
- C. Engineer's authority as to design drawings, calculations, specifications, certifications and other Submittals from Contractor in response to Owner's delegation (if any) to Contractor of professional design services, is set forth in Paragraph 7.19.
- D. Engineer's authority as to changes in the Work is set forth in Article 11.

E. Engineer's authority as to Applications for Payment is set forth in Article 15.

10.05 *Determinations for Unit Price Work*

A. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor as set forth in Paragraph 13.03.

10.06 *Decisions on Requirements of Contract Documents and Acceptability of Work*

A. Engineer will render decisions regarding the requirements of the Contract Documents, and judge the acceptability of the Work, pursuant to the specific procedures set forth herein for initial interpretations, Change Proposals, and acceptance of the Work. In rendering such decisions and judgments, Engineer will not show partiality to Owner or Contractor, and will not be liable to Owner, Contractor, or others in connection with any proceedings, interpretations, decisions, or judgments conducted or rendered in good faith.

10.07 *Limitations on Engineer's Authority and Responsibilities*

A. Neither Engineer's authority or responsibility under this Article 10 or under any other provision of the Contract, nor any decision made by Engineer in good faith either to exercise or not exercise such authority or responsibility or the undertaking, exercise, or performance of any authority or responsibility by Engineer, will create, impose, or give rise to any duty in contract, tort, or otherwise owed by Engineer to Contractor, any Subcontractor, any Supplier, any other individual or entity, or to any surety for or employee or agent of any of them.

B. Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Engineer will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

C. Engineer will not be responsible for the acts or omissions of Contractor or of any Subcontractor, any Supplier, or of any other individual or entity performing any of the Work.

D. Engineer's review of the final Application for Payment and accompanying documentation, and all maintenance and operating instructions, schedules, guarantees, bonds, certificates of inspection, tests and approvals, and other documentation required to be delivered by Contractor under Paragraph 15.06.A, will only be to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests, and approvals, that the results certified indicate compliance with the Contract Documents.

E. The limitations upon authority and responsibility set forth in this Paragraph 10.07 also apply to the Resident Project Representative, if any.

10.08 *Compliance with Safety Program*

A. While at the Site, Engineer's employees and representatives will comply with the specific applicable requirements of Owner's and Contractor's safety programs of which Engineer has been informed.

ARTICLE 11—CHANGES TO THE CONTRACT

11.01 *Amending and Supplementing the Contract*

- A. The Contract may be amended or supplemented by a Change Order, a Work Change Directive, or a Field Order.
- B. If an amendment or supplement to the Contract includes a change in the Contract Price or the Contract Times, such amendment or supplement must be set forth in a Change Order.
- C. All changes to the Contract that involve (1) the performance or acceptability of the Work, (2) the design (as set forth in the Drawings, Specifications, or otherwise), or (3) other engineering or technical matters, must be supported by Engineer's recommendation. Owner and Contractor may amend other terms and conditions of the Contract without the recommendation of the Engineer.

11.02 *Change Orders*

- A. Owner and Contractor shall execute appropriate Change Orders covering:
 - 1. Changes in Contract Price or Contract Times which are agreed to by the parties, including any undisputed sum or amount of time for Work actually performed in accordance with a Work Change Directive;
 - 2. Changes in Contract Price resulting from an Owner set-off, unless Contractor has duly contested such set-off;
 - 3. Changes in the Work which are: (a) ordered by Owner pursuant to Paragraph 11.05, (b) required because of Owner's acceptance of defective Work under Paragraph 14.04 or Owner's correction of defective Work under Paragraph 14.07, or (c) agreed to by the parties, subject to the need for Engineer's recommendation if the change in the Work involves the design (as set forth in the Drawings, Specifications, or otherwise) or other engineering or technical matters; and
 - 4. Changes that embody the substance of any final and binding results under: Paragraph 11.03.B, resolving the impact of a Work Change Directive; Paragraph 11.09, concerning Change Proposals; Article 12, Claims; Paragraph 13.02.D, final adjustments resulting from allowances; Paragraph 13.03.D, final adjustments relating to determination of quantities for Unit Price Work; and similar provisions.
- B. If Owner or Contractor refuses to execute a Change Order that is required to be executed under the terms of Paragraph 11.02.A, it will be deemed to be of full force and effect, as if fully executed.

11.03 *Work Change Directives*

- A. A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the modification ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order, following negotiations by the parties as to the Work Change Directive's effect, if any, on the Contract Price and Contract Times; or, if negotiations are unsuccessful, by a determination under the terms of the Contract Documents governing adjustments, expressly including Paragraph 11.07 regarding change of Contract Price.

- B. If Owner has issued a Work Change Directive and:
 - 1. Contractor believes that an adjustment in Contract Times or Contract Price is necessary, then Contractor shall submit any Change Proposal seeking such an adjustment no later than 30 days after the completion of the Work set out in the Work Change Directive.
 - 2. Owner believes that an adjustment in Contract Times or Contract Price is necessary, then Owner shall submit any Claim seeking such an adjustment no later than 60 days after issuance of the Work Change Directive.

11.04 *Field Orders*

- A. Engineer may authorize minor changes in the Work if the changes do not involve an adjustment in the Contract Price or the Contract Times and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. Such changes will be accomplished by a Field Order and will be binding on Owner and also on Contractor, which shall perform the Work involved promptly.
- B. If Contractor believes that a Field Order justifies an adjustment in the Contract Price or Contract Times, then before proceeding with the Work at issue, Contractor shall submit a Change Proposal as provided herein.

11.05 *Owner-Authorized Changes in the Work*

- A. Without invalidating the Contract and without notice to any surety, Owner may, at any time or from time to time, order additions, deletions, or revisions in the Work. Changes involving the design (as set forth in the Drawings, Specifications, or otherwise) or other engineering or technical matters will be supported by Engineer's recommendation.
- B. Such changes in the Work may be accomplished by a Change Order, if Owner and Contractor have agreed as to the effect, if any, of the changes on Contract Times or Contract Price; or by a Work Change Directive. Upon receipt of any such document, Contractor shall promptly proceed with the Work involved; or, in the case of a deletion in the Work, promptly cease construction activities with respect to such deleted Work. Added or revised Work must be performed under the applicable conditions of the Contract Documents.
- C. Nothing in this Paragraph 11.05 obligates Contractor to undertake work that Contractor reasonably concludes cannot be performed in a manner consistent with Contractor's safety obligations under the Contract Documents or Laws and Regulations.

11.06 *Unauthorized Changes in the Work*

- A. Contractor shall not be entitled to an increase in the Contract Price or an extension of the Contract Times with respect to any work performed that is not required by the Contract Documents, as amended, modified, or supplemented, except in the case of an emergency as provided in Paragraph 7.15 or in the case of uncovering Work as provided in Paragraph 14.05.C.2.

11.07 *Change of Contract Price*

- A. The Contract Price may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Price must comply with the provisions of Paragraph 11.09. Any Claim for an adjustment of Contract Price must comply with the provisions of Article 12.
- B. An adjustment in the Contract Price will be determined as follows:

1. Where the Work involved is covered by unit prices contained in the Contract Documents, then by application of such unit prices to the quantities of the items involved (subject to the provisions of Paragraph 13.03);
 2. Where the Work involved is not covered by unit prices contained in the Contract Documents, then by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with Paragraph 11.07.C.2); or
 3. Where the Work involved is not covered by unit prices contained in the Contract Documents and the parties do not reach mutual agreement to a lump sum, then on the basis of the Cost of the Work (determined as provided in Paragraph 13.01) plus a Contractor's fee for overhead and profit (determined as provided in Paragraph 11.07.C).
- C. *Contractor's Fee*: When applicable, the Contractor's fee for overhead and profit will be determined as follows:
1. A mutually acceptable fixed fee; or
 2. If a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:
 - a. For costs incurred under Paragraphs 13.01.B.1 and 13.01.B.2, the Contractor's fee will be 15 percent;
 - b. For costs incurred under Paragraph 13.01.B.3, the Contractor's fee will be 5 percent;
 - c. Where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of Paragraphs 11.07.C.2.a and 11.07.C.2.b is that the Contractor's fee will be based on: (1) a fee of 15 percent of the costs incurred under Paragraphs 13.01.B.1 and 13.01.B.2 by the Subcontractor that actually performs the Work, at whatever tier, and (2) with respect to Contractor itself and to any Subcontractors of a tier higher than that of the Subcontractor that actually performs the Work, a fee of 5 percent of the amount (fee plus underlying costs incurred) attributable to the next lower tier Subcontractor; provided, however, that for any such subcontracted Work the maximum total fee to be paid by Owner will be no greater than 27 percent of the costs incurred by the Subcontractor that actually performs the Work;
 - d. No fee will be payable on the basis of costs itemized under Paragraphs 13.01.B.4, 13.01.B.5, and 13.01.C;
 - e. The amount of credit to be allowed by Contractor to Owner for any change which results in a net decrease in Cost of the Work will be the amount of the actual net decrease in Cost of the Work and a deduction of an additional amount equal to 5 percent of such actual net decrease in Cost of the Work; and
 - f. When both additions and credits are involved in any one change or Change Proposal, the adjustment in Contractor's fee will be computed by determining the sum of the costs in each of the cost categories in Paragraph 13.01.B (specifically, payroll costs, Paragraph 13.01.B.1; incorporated materials and equipment costs, Paragraph 13.01.B.2; Subcontract costs, Paragraph 13.01.B.3; special consultants costs, Paragraph 13.01.B.4; and other costs, Paragraph 13.01.B.5) and applying to each such cost category sum the appropriate fee from Paragraphs 11.07.C.2.a through 11.07.C.2.e, inclusive.

11.08 *Change of Contract Times*

- A. The Contract Times may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Times must comply with the provisions of Paragraph 11.09. Any Claim for an adjustment in the Contract Times must comply with the provisions of Article 12.
- B. Delay, disruption, and interference in the Work, and any related changes in Contract Times, are addressed in and governed by Paragraph 4.05.

11.09 *Change Proposals*

A. *Purpose and Content:* Contractor shall submit a Change Proposal to Engineer to request an adjustment in the Contract Times or Contract Price; contest an initial decision by Engineer concerning the requirements of the Contract Documents or relating to the acceptability of the Work under the Contract Documents; challenge a set-off against payment due; or seek other relief under the Contract. The Change Proposal will specify any proposed change in Contract Times or Contract Price, or other proposed relief, and explain the reason for the proposed change, with citations to any governing or applicable provisions of the Contract Documents. Each Change Proposal will address only one issue, or a set of closely related issues.

B. *Change Proposal Procedures*

1. *Submittal:* Contractor shall submit each Change Proposal to Engineer within 30 days after the start of the event giving rise thereto, or after such initial decision.
2. *Supporting Data:* The Contractor shall submit supporting data, including the proposed change in Contract Price or Contract Time (if any), to the Engineer and Owner within 15 days after the submittal of the Change Proposal.
 - a. Change Proposals based on or related to delay, interruption, or interference must comply with the provisions of Paragraphs 4.05.D and 4.05.E.
 - b. Change proposals related to a change of Contract Price must include full and detailed accounts of materials incorporated into the Work and labor and equipment used for the subject Work.

The supporting data must be accompanied by a written statement that the supporting data are accurate and complete, and that any requested time or price adjustment is the entire adjustment to which Contractor believes it is entitled as a result of said event.

3. *Engineer's Initial Review:* Engineer will advise Owner regarding the Change Proposal, and consider any comments or response from Owner regarding the Change Proposal. If in its discretion Engineer concludes that additional supporting data is needed before conducting a full review and making a decision regarding the Change Proposal, then Engineer may request that Contractor submit such additional supporting data by a date specified by Engineer, prior to Engineer beginning its full review of the Change Proposal.
4. *Engineer's Full Review and Action on the Change Proposal:* Upon receipt of Contractor's supporting data (including any additional data requested by Engineer), Engineer will conduct a full review of each Change Proposal and, within 30 days after such receipt of the Contractor's supporting data, either approve the Change Proposal in whole, deny it in whole, or approve it in part and deny it in part. Such actions must be in writing, with a copy provided to Owner and Contractor. If Engineer does not take action on the Change

Proposal within 30 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of Engineer's inaction the Change Proposal is deemed denied, thereby commencing the time for appeal of the denial under Article 12.

5. *Binding Decision*: Engineer's decision is final and binding upon Owner and Contractor, unless Owner or Contractor appeals the decision by filing a Claim under Article 12.
- C. *Resolution of Certain Change Proposals*: If the Change Proposal does not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters, then Engineer will notify the parties in writing that the Engineer is unable to resolve the Change Proposal. For purposes of further resolution of such a Change Proposal, such notice will be deemed a denial, and Contractor may choose to seek resolution under the terms of Article 12.
- D. *Post-Completion*: Contractor shall not submit any Change Proposals after Engineer issues a written recommendation of final payment pursuant to Paragraph 15.06.B.

11.10 *Notification to Surety*

- A. If the provisions of any bond require notice to be given to a surety of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to, Contract Price or Contract Times), the giving of any such notice will be Contractor's responsibility. The amount of each applicable bond will be adjusted to reflect the effect of any such change.

ARTICLE 12—CLAIMS

12.01 *Claims*

- A. *Claims Process*: The following disputes between Owner and Contractor are subject to the Claims process set forth in this article:
 1. Appeals by Owner or Contractor of Engineer's decisions regarding Change Proposals;
 2. Owner demands for adjustments in the Contract Price or Contract Times, or other relief under the Contract Documents;
 3. Disputes that Engineer has been unable to address because they do not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters; and
 4. Subject to the waiver provisions of Paragraph 15.07, any dispute arising after Engineer has issued a written recommendation of final payment pursuant to Paragraph 15.06.B.
- B. *Submittal of Claim*: The party submitting a Claim shall deliver it directly to the other party to the Contract promptly (but in no event later than 30 days) after the start of the event giving rise thereto; in the case of appeals regarding Change Proposals within 30 days of the decision under appeal. The party submitting the Claim shall also furnish a copy to the Engineer, for its information only. The responsibility to substantiate a Claim rests with the party making the Claim. In the case of a Claim by Contractor seeking an increase in the Contract Times or Contract Price, Contractor shall certify that the Claim is made in good faith, that the supporting data are accurate and complete, and that to the best of Contractor's knowledge

and belief the amount of time or money requested accurately reflects the full amount to which Contractor is entitled.

- C. *Review and Resolution*: The party receiving a Claim shall review it thoroughly, giving full consideration to its merits. The two parties shall seek to resolve the Claim through the exchange of information and direct negotiations. The parties may extend the time for resolving the Claim by mutual agreement. All actions taken on a Claim will be stated in writing and submitted to the other party, with a copy to Engineer.
- D. *Mediation*
 - 1. At any time after initiation of a Claim, Owner and Contractor may mutually agree to mediation of the underlying dispute. The agreement to mediate will stay the Claim submittal and response process.
 - 2. If Owner and Contractor agree to mediation, then after 60 days from such agreement, either Owner or Contractor may unilaterally terminate the mediation process, and the Claim submittal and decision process will resume as of the date of the termination. If the mediation proceeds but is unsuccessful in resolving the dispute, the Claim submittal and decision process will resume as of the date of the conclusion of the mediation, as determined by the mediator.
 - 3. Owner and Contractor shall each pay one-half of the mediator's fees and costs.
- E. *Partial Approval*: If the party receiving a Claim approves the Claim in part and denies it in part, such action will be final and binding unless within 30 days of such action the other party invokes the procedure set forth in Article 17 for final resolution of disputes.
- F. *Denial of Claim*: If efforts to resolve a Claim are not successful, the party receiving the Claim may deny it by giving written notice of denial to the other party. If the receiving party does not take action on the Claim within 90 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of the inaction, the Claim is deemed denied, thereby commencing the time for appeal of the denial. A denial of the Claim will be final and binding unless within 30 days of the denial the other party invokes the procedure set forth in Article 17 for the final resolution of disputes.
- G. *Final and Binding Results*: If the parties reach a mutual agreement regarding a Claim, whether through approval of the Claim, direct negotiations, mediation, or otherwise; or if a Claim is approved in part and denied in part, or denied in full, and such actions become final and binding; then the results of the agreement or action on the Claim will be incorporated in a Change Order or other written document to the extent they affect the Contract, including the Work, the Contract Times, or the Contract Price.

ARTICLE 13—COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK

13.01 *Cost of the Work*

- A. *Purposes for Determination of Cost of the Work*: The term Cost of the Work means the sum of all costs necessary for the proper performance of the Work at issue, as further defined below. The provisions of this Paragraph 13.01 are used for two distinct purposes:
 - 1. To determine Cost of the Work when Cost of the Work is a component of the Contract Price, under cost-plus-fee, time-and-materials, or other cost-based terms; or

2. When needed to determine the value of a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price. When the value of any such adjustment is determined on the basis of Cost of the Work, Contractor is entitled only to those additional or incremental costs required because of the change in the Work or because of the event giving rise to the adjustment.
- B. *Costs Included:* Except as otherwise may be agreed to in writing by Owner, costs included in the Cost of the Work will be in amounts no higher than those commonly incurred in the locality of the Project, will not include any of the costs itemized in Paragraph 13.01.C, and will include only the following items:
1. Payroll costs for employees in the direct employ of Contractor in the performance of the Work under schedules of job classifications agreed upon by Owner and Contractor in advance of the subject Work. Such employees include, without limitation, superintendents, foremen, safety managers, safety representatives, and other personnel employed full time on the Work. Payroll costs for employees not employed full time on the Work will be apportioned on the basis of their time spent on the Work. Payroll costs include, but are not limited to, salaries and wages plus the cost of fringe benefits, which include social security contributions, unemployment, excise, and payroll taxes, workers' compensation, health and retirement benefits, sick leave, and vacation and holiday pay applicable thereto. The expenses of performing Work outside of regular working hours, on Saturday, Sunday, or legal holidays, will be included in the above to the extent authorized by Owner.
 2. Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts accrue to Contractor unless Owner deposits funds with Contractor with which to make payments, in which case the cash discounts will accrue to Owner. All trade discounts, rebates, and refunds and returns from sale of surplus materials and equipment will accrue to Owner, and Contractor shall make provisions so that they may be obtained.
 3. Payments made by Contractor to Subcontractors for Work performed by Subcontractors. If required by Owner, Contractor shall obtain competitive bids from subcontractors acceptable to Owner and Contractor and shall deliver such bids to Owner, which will then determine, with the advice of Engineer, which bids, if any, will be acceptable. If any subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work plus a fee, the Subcontractor's Cost of the Work and fee will be determined in the same manner as Contractor's Cost of the Work and fee as provided in this Paragraph 13.01.
 4. Costs of special consultants (including but not limited to engineers, architects, testing laboratories, surveyors, attorneys, and accountants) employed or retained for services specifically related to the Work.
 5. Other costs consisting of the following:
 - a. The proportion of necessary transportation, travel, and subsistence expenses of Contractor's employees incurred in discharge of duties connected with the Work.
 - b. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office, and temporary facilities at the Site, which are

consumed in the performance of the Work, and cost, less market value, of such items used but not consumed which remain the property of Contractor.

- 1) In establishing included costs for materials such as scaffolding, plating, or sheeting, consideration will be given to the actual or the estimated life of the material for use on other projects; or rental rates may be established on the basis of purchase or salvage value of such items, whichever is less. Contractor will not be eligible for compensation for such items in an amount that exceeds the purchase cost of such item.

c. *Construction Equipment Rental*

- 1) Rentals of all construction equipment and machinery, and the parts thereof, in accordance with rental agreements approved by Owner as to price (including any surcharge or special rates applicable to overtime use of the construction equipment or machinery), and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs will be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery, or parts must cease when the use thereof is no longer necessary for the Work.
- 2) Costs for equipment and machinery owned by Contractor or a Contractor-related entity will be paid at a rate shown for such equipment in the equipment rental rate book specified in the Supplementary Conditions. An hourly rate will be computed by dividing the monthly rates by 176. These computed rates will include all operating costs.
- 3) With respect to Work that is the result of a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price ("changed Work"), included costs will be based on the time the equipment or machinery is in use on the changed Work and the costs of transportation, loading, unloading, assembly, dismantling, and removal when directly attributable to the changed Work. The cost of any such equipment or machinery, or parts thereof, must cease to accrue when the use thereof is no longer necessary for the changed Work.

- d. Sales, consumer, use, and other similar taxes related to the Work, and for which Contractor is liable, as imposed by Laws and Regulations.
- e. Deposits lost for causes other than negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.
- f. Losses and damages (and related expenses) caused by damage to the Work, not compensated by insurance or otherwise, sustained by Contractor in connection with the performance of the Work (except losses and damages within the deductible amounts of builder's risk or other property insurance established in accordance with Paragraph 6.04), provided such losses and damages have resulted from causes other than the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses include settlements made with the written consent and approval of Owner. No such losses, damages, and expenses will be included in the Cost of the Work for the purpose of determining Contractor's fee.

- g. The cost of utilities, fuel, and sanitary facilities at the Site.
- h. Minor expenses such as communication service at the Site, express and courier services, and similar petty cash items in connection with the Work.
- i. The costs of premiums for all bonds and insurance that Contractor is required by the Contract Documents to purchase and maintain.

C. *Costs Excluded*: The term Cost of the Work does not include any of the following items:

- 1. Payroll costs and other compensation of Contractor's officers, executives, principals, general managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks, and other personnel employed by Contractor, whether at the Site or in Contractor's principal or branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in Paragraph 13.01.B.1 or specifically covered by Paragraph 13.01.B.4. The payroll costs and other compensation excluded here are to be considered administrative costs covered by the Contractor's fee.
- 2. The cost of purchasing, renting, or furnishing small tools and hand tools.
- 3. Expenses of Contractor's principal and branch offices other than Contractor's office at the Site.
- 4. Any part of Contractor's capital expenses, including interest on Contractor's capital employed for the Work and charges against Contractor for delinquent payments.
- 5. Costs due to the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property.
- 6. Expenses incurred in preparing and advancing Claims.
- 7. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in Paragraph 13.01.B.

D. *Contractor's Fee*

- 1. When the Work as a whole is performed on the basis of cost-plus-a-fee, then:
 - a. Contractor's fee for the Work set forth in the Contract Documents as of the Effective Date of the Contract will be determined as set forth in the Agreement.
 - b. for any Work covered by a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price on the basis of Cost of the Work, Contractor's fee will be determined as follows:
 - 1) When the fee for the Work as a whole is a percentage of the Cost of the Work, the fee will automatically adjust as the Cost of the Work changes.
 - 2) When the fee for the Work as a whole is a fixed fee, the fee for any additions or deletions will be determined in accordance with Paragraph 11.07.C.2.
- 2. When the Work as a whole is performed on the basis of a stipulated sum, or any other basis other than cost-plus-a-fee, then Contractor's fee for any Work covered by a Change

Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price on the basis of Cost of the Work will be determined in accordance with Paragraph 11.07.C.2.

- E. *Documentation and Audit*: Whenever the Cost of the Work for any purpose is to be determined pursuant to this Article 13, Contractor and pertinent Subcontractors will establish and maintain records of the costs in accordance with generally accepted accounting practices. Subject to prior written notice, Owner will be afforded reasonable access, during normal business hours, to all Contractor's accounts, records, books, correspondence, instructions, drawings, receipts, vouchers, memoranda, and similar data relating to the Cost of the Work and Contractor's fee. Contractor shall preserve all such documents for a period of three years after the final payment by Owner. Pertinent Subcontractors will afford such access to Owner, and preserve such documents, to the same extent required of Contractor.

13.02 Allowances

- A. It is understood that Contractor has included in the Contract Price all allowances so named in the Contract Documents and shall cause the Work so covered to be performed for such sums and by such persons or entities as may be acceptable to Owner and Engineer.
- B. *Cash Allowances*: Contractor agrees that:
 - 1. the cash allowances include the cost to Contractor (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the Site, and all applicable taxes; and
 - 2. Contractor's costs for unloading and handling on the Site, labor, installation, overhead, profit, and other expenses contemplated for the cash allowances have been included in the Contract Price and not in the allowances, and no demand for additional payment for any of the foregoing will be valid.
- C. *Owner's Contingency Allowance*: Contractor agrees that an Owner's contingency allowance, if any, is for the sole use of Owner to cover unanticipated costs.
- D. Prior to final payment, an appropriate Change Order will be issued as recommended by Engineer to reflect actual amounts due Contractor for Work covered by allowances, and the Contract Price will be correspondingly adjusted.

13.03 Unit Price Work

- A. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the unit price for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement.
- B. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Payments to Contractor for Unit Price Work will be based on actual quantities.
- C. Each unit price will be deemed to include an amount considered by Contractor to be adequate to cover Contractor's overhead and profit for each separately identified item.
- D. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor. Engineer will review with Contractor the Engineer's preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). Engineer's written decision

thereon will be final and binding (except as modified by Engineer to reflect changed factual conditions or more accurate data) upon Owner and Contractor, and the final adjustment of Contract Price will be set forth in a Change Order, subject to the provisions of the following paragraph.

E. *Adjustments in Unit Price*

1. Contractor or Owner shall be entitled to an adjustment in the unit price with respect to an item of Unit Price Work if:
 - a. the quantity of the item of Unit Price Work performed by Contractor differs materially and significantly from the estimated quantity of such item indicated in the Agreement; and
 - b. Contractor's unit costs to perform the item of Unit Price Work have changed materially and significantly as a result of the quantity change.
2. The adjustment in unit price will account for and be coordinated with any related changes in quantities of other items of Work, and in Contractor's costs to perform such other Work, such that the resulting overall change in Contract Price is equitable to Owner and Contractor.
3. Adjusted unit prices will apply to all units of that item.

ARTICLE 14—TESTS AND INSPECTIONS; CORRECTION, REMOVAL, OR ACCEPTANCE OF DEFECTIVE WORK

14.01 *Access to Work*

- A. Owner, Engineer, their consultants and other representatives and personnel of Owner, independent testing laboratories, and authorities having jurisdiction have access to the Site and the Work at reasonable times for their observation, inspection, and testing. Contractor shall provide them proper and safe conditions for such access and advise them of Contractor's safety procedures and programs so that they may comply with such procedures and programs as applicable.

14.02 *Tests, Inspections, and Approvals*

- A. Contractor shall give Engineer timely notice of readiness of the Work (or specific parts thereof) for all required inspections and tests, and shall cooperate with inspection and testing personnel to facilitate required inspections and tests.
- B. Owner shall retain and pay for the services of an independent inspector, testing laboratory, or other qualified individual or entity to perform all inspections and tests expressly required by the Contract Documents to be furnished and paid for by Owner, except that costs incurred in connection with tests or inspections of covered Work will be governed by the provisions of Paragraph 14.05.
- C. If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested, or approved by an employee or other representative of such public body, Contractor shall assume full responsibility for arranging and obtaining such inspections, tests, or approvals, pay all costs in connection therewith, and furnish Engineer the required certificates of inspection or approval.

- D. Contractor shall be responsible for arranging, obtaining, and paying for all inspections and tests required:
1. by the Contract Documents, unless the Contract Documents expressly allocate responsibility for a specific inspection or test to Owner;
 2. to attain Owner's and Engineer's acceptance of materials or equipment to be incorporated in the Work;
 3. by manufacturers of equipment furnished under the Contract Documents;
 4. for testing, adjusting, and balancing of mechanical, electrical, and other equipment to be incorporated into the Work; and
 5. for acceptance of materials, mix designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work.

Such inspections and tests will be performed by independent inspectors, testing laboratories, or other qualified individuals or entities acceptable to Owner and Engineer.

- E. If the Contract Documents require the Work (or part thereof) to be approved by Owner, Engineer, or another designated individual or entity, then Contractor shall assume full responsibility for arranging and obtaining such approvals.
- F. If any Work (or the work of others) that is to be inspected, tested, or approved is covered by Contractor without written concurrence of Engineer, Contractor shall, if requested by Engineer, uncover such Work for observation. Such uncovering will be at Contractor's expense unless Contractor had given Engineer timely notice of Contractor's intention to cover the same and Engineer had not acted with reasonable promptness in response to such notice.

14.03 *Defective Work*

- A. *Contractor's Obligation*: It is Contractor's obligation to assure that the Work is not defective.
- B. *Engineer's Authority*: Engineer has the authority to determine whether Work is defective, and to reject defective Work.
- C. *Notice of Defects*: Prompt written notice of all defective Work of which Owner or Engineer has actual knowledge will be given to Contractor.
- D. *Correction, or Removal and Replacement*: Promptly after receipt of written notice of defective Work, Contractor shall correct all such defective Work, whether or not fabricated, installed, or completed, or, if Engineer has rejected the defective Work, remove it from the Project and replace it with Work that is not defective.
- E. *Preservation of Warranties*: When correcting defective Work, Contractor shall take no action that would void or otherwise impair Owner's special warranty and guarantee, if any, on said Work.
- F. *Costs and Damages*: In addition to its correction, removal, and replacement obligations with respect to defective Work, Contractor shall pay all claims, costs, losses, and damages arising out of or relating to defective Work, including but not limited to the cost of the inspection, testing, correction, removal, replacement, or reconstruction of such defective Work, fines levied against Owner by governmental authorities because the Work is defective, and the costs of repair or replacement of work of others resulting from defective Work. Prior to final payment, if Owner and Contractor are unable to agree as to the measure of such claims, costs,

losses, and damages resulting from defective Work, then Owner may impose a reasonable set-off against payments due under Article 15.

14.04 *Acceptance of Defective Work*

- A. If, instead of requiring correction or removal and replacement of defective Work, Owner prefers to accept it, Owner may do so (subject, if such acceptance occurs prior to final payment, to Engineer's confirmation that such acceptance is in general accord with the design intent and applicable engineering principles, and will not endanger public safety). Contractor shall pay all claims, costs, losses, and damages attributable to Owner's evaluation of and determination to accept such defective Work (such costs to be approved by Engineer as to reasonableness), and for the diminished value of the Work to the extent not otherwise paid by Contractor. If any such acceptance occurs prior to final payment, the necessary revisions in the Contract Documents with respect to the Work will be incorporated in a Change Order. If the parties are unable to agree as to the decrease in the Contract Price, reflecting the diminished value of Work so accepted, then Owner may impose a reasonable set-off against payments due under Article 15. If the acceptance of defective Work occurs after final payment, Contractor shall pay an appropriate amount to Owner.

14.05 *Uncovering Work*

- A. Engineer has the authority to require additional inspection or testing of the Work, whether or not the Work is fabricated, installed, or completed.
- B. If any Work is covered contrary to the written request of Engineer, then Contractor shall, if requested by Engineer, uncover such Work for Engineer's observation, and then replace the covering, all at Contractor's expense.
- C. If Engineer considers it necessary or advisable that covered Work be observed by Engineer or inspected or tested by others, then Contractor, at Engineer's request, shall uncover, expose, or otherwise make available for observation, inspection, or testing as Engineer may require, that portion of the Work in question, and provide all necessary labor, material, and equipment.
 1. If it is found that the uncovered Work is defective, Contractor shall be responsible for all claims, costs, losses, and damages arising out of or relating to such uncovering, exposure, observation, inspection, and testing, and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); and pending Contractor's full discharge of this responsibility the Owner shall be entitled to impose a reasonable set-off against payments due under Article 15.
 2. If the uncovered Work is not found to be defective, Contractor shall be allowed an increase in the Contract Price or an extension of the Contract Times, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement, and reconstruction. If the parties are unable to agree as to the amount or extent thereof, then Contractor may submit a Change Proposal within 30 days of the determination that the Work is not defective.

14.06 *Owner May Stop the Work*

- A. If the Work is defective, or Contractor fails to supply sufficient skilled workers or suitable materials or equipment, or fails to perform the Work in such a way that the completed Work will conform to the Contract Documents, then Owner may order Contractor to stop the Work,

or any portion thereof, until the cause for such order has been eliminated; however, this right of Owner to stop the Work will not give rise to any duty on the part of Owner to exercise this right for the benefit of Contractor, any Subcontractor, any Supplier, any other individual or entity, or any surety for, or employee or agent of any of them.

14.07 Owner May Correct Defective Work

- A. If Contractor fails within a reasonable time after written notice from Engineer to correct defective Work, or to remove and replace defective Work as required by Engineer, then Owner may, after 7 days' written notice to Contractor, correct or remedy any such deficiency.
- B. In exercising the rights and remedies under this Paragraph 14.07, Owner shall proceed expeditiously. In connection with such corrective or remedial action, Owner may exclude Contractor from all or part of the Site, take possession of all or part of the Work and suspend Contractor's services related thereto, and incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere. Contractor shall allow Owner, Owner's representatives, agents and employees, Owner's other contractors, and Engineer and Engineer's consultants access to the Site to enable Owner to exercise the rights and remedies under this paragraph.
- C. All claims, costs, losses, and damages incurred or sustained by Owner in exercising the rights and remedies under this Paragraph 14.07 will be charged against Contractor as set-offs against payments due under Article 15. Such claims, costs, losses and damages will include but not be limited to all costs of repair, or replacement of work of others destroyed or damaged by correction, removal, or replacement of Contractor's defective Work.
- D. Contractor shall not be allowed an extension of the Contract Times because of any delay in the performance of the Work attributable to the exercise by Owner of Owner's rights and remedies under this Paragraph 14.07.

ARTICLE 15—PAYMENTS TO CONTRACTOR; SET-OFFS; COMPLETION; CORRECTION PERIOD

15.01 Progress Payments

- A. *Basis for Progress Payments:* The Schedule of Values established as provided in Article 2 will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to Engineer. Progress payments for Unit Price Work will be based on the number of units completed during the pay period, as determined under the provisions of Paragraph 13.03. Progress payments for cost-based Work will be based on Cost of the Work completed by Contractor during the pay period.
- B. *Applications for Payments*
 - 1. At least 20 days before the date established in the Agreement for each progress payment (but not more often than once a month), Contractor shall submit to Engineer for review an Application for Payment filled out and signed by Contractor covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents.
 - 2. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the Site or at another location agreed to in writing, the Application for Payment must also be accompanied by: (a) a bill of sale, invoice, copies of subcontract or purchase order payments, or other documentation

establishing full payment by Contractor for the materials and equipment; (b) at Owner's request, documentation warranting that Owner has received the materials and equipment free and clear of all Liens; and (c) evidence that the materials and equipment are covered by appropriate property insurance, a warehouse bond, or other arrangements to protect Owner's interest therein, all of which must be satisfactory to Owner.

3. Beginning with the second Application for Payment, each Application must include an affidavit of Contractor stating that all previous progress payments received by Contractor have been applied to discharge Contractor's legitimate obligations associated with prior Applications for Payment.
4. The amount of retainage with respect to progress payments will be as stipulated in the Agreement.

C. *Review of Applications*

1. Engineer will, within 10 days after receipt of each Application for Payment, including each resubmittal, either indicate in writing a recommendation of payment and present the Application to Owner, or return the Application to Contractor indicating in writing Engineer's reasons for refusing to recommend payment. In the latter case, Contractor may make the necessary corrections and resubmit the Application.
2. Engineer's recommendation of any payment requested in an Application for Payment will constitute a representation by Engineer to Owner, based on Engineer's observations of the executed Work as an experienced and qualified design professional, and on Engineer's review of the Application for Payment and the accompanying data and schedules, that to the best of Engineer's knowledge, information and belief:
 - a. the Work has progressed to the point indicated;
 - b. the quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, the results of any subsequent tests called for in the Contract Documents, a final determination of quantities and classifications for Unit Price Work under Paragraph 13.03, and any other qualifications stated in the recommendation); and
 - c. the conditions precedent to Contractor's being entitled to such payment appear to have been fulfilled in so far as it is Engineer's responsibility to observe the Work.
3. By recommending any such payment Engineer will not thereby be deemed to have represented that:
 - a. inspections made to check the quality or the quantity of the Work as it has been performed have been exhaustive, extended to every aspect of the Work in progress, or involved detailed inspections of the Work beyond the responsibilities specifically assigned to Engineer in the Contract; or
 - b. there may not be other matters or issues between the parties that might entitle Contractor to be paid additionally by Owner or entitle Owner to withhold payment to Contractor.

4. Neither Engineer's review of Contractor's Work for the purposes of recommending payments nor Engineer's recommendation of any payment, including final payment, will impose responsibility on Engineer:
 - a. to supervise, direct, or control the Work;
 - b. for the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto;
 - c. for Contractor's failure to comply with Laws and Regulations applicable to Contractor's performance of the Work;
 - d. to make any examination to ascertain how or for what purposes Contractor has used the money paid by Owner; or
 - e. to determine that title to any of the Work, materials, or equipment has passed to Owner free and clear of any Liens.
5. Engineer may refuse to recommend the whole or any part of any payment if, in Engineer's opinion, it would be incorrect to make the representations to Owner stated in Paragraph 15.01.C.2.
6. Engineer will recommend reductions in payment (set-offs) necessary in Engineer's opinion to protect Owner from loss because:
 - a. the Work is defective, requiring correction or replacement;
 - b. the Contract Price has been reduced by Change Orders;
 - c. Owner has been required to correct defective Work in accordance with Paragraph 14.07, or has accepted defective Work pursuant to Paragraph 14.04;
 - d. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible; or
 - e. Engineer has actual knowledge of the occurrence of any of the events that would constitute a default by Contractor and therefore justify termination for cause under the Contract Documents.

D. *Payment Becomes Due*

1. Ten days after presentation of the Application for Payment to Owner with Engineer's recommendation, the amount recommended (subject to any Owner set-offs) will become due, and when due will be paid by Owner to Contractor.

E. *Reductions in Payment by Owner*

1. In addition to any reductions in payment (set-offs) recommended by Engineer, Owner is entitled to impose a set-off against payment based on any of the following:
 - a. Claims have been made against Owner based on Contractor's conduct in the performance or furnishing of the Work, or Owner has incurred costs, losses, or damages resulting from Contractor's conduct in the performance or furnishing of the Work, including but not limited to claims, costs, losses, or damages from workplace injuries, adjacent property damage, non-compliance with Laws and Regulations, and patent infringement;

- b. Contractor has failed to take reasonable and customary measures to avoid damage, delay, disruption, and interference with other work at or adjacent to the Site;
 - c. Contractor has failed to provide and maintain required bonds or insurance;
 - d. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible;
 - e. Owner has incurred extra charges or engineering costs related to submittal reviews, evaluations of proposed substitutes, tests and inspections, or return visits to manufacturing or assembly facilities;
 - f. The Work is defective, requiring correction or replacement;
 - g. Owner has been required to correct defective Work in accordance with Paragraph 14.07, or has accepted defective Work pursuant to Paragraph 14.04;
 - h. The Contract Price has been reduced by Change Orders;
 - i. An event has occurred that would constitute a default by Contractor and therefore justify a termination for cause;
 - j. Liquidated or other damages have accrued as a result of Contractor's failure to achieve Milestones, Substantial Completion, or final completion of the Work;
 - k. Liens have been filed in connection with the Work, except where Contractor has delivered a specific bond satisfactory to Owner to secure the satisfaction and discharge of such Liens; or
 - l. Other items entitle Owner to a set-off against the amount recommended.
2. If Owner imposes any set-off against payment, whether based on its own knowledge or on the written recommendations of Engineer, Owner will give Contractor immediate written notice (with a copy to Engineer) stating the reasons for such action and the specific amount of the reduction, and promptly pay Contractor any amount remaining after deduction of the amount so withheld. Owner shall promptly pay Contractor the amount so withheld, or any adjustment thereto agreed to by Owner and Contractor, if Contractor remedies the reasons for such action. The reduction imposed will be binding on Contractor unless it duly submits a Change Proposal contesting the reduction.
 3. Upon a subsequent determination that Owner's refusal of payment was not justified, the amount wrongfully withheld will be treated as an amount due as determined by Paragraph 15.01.D.1 and subject to interest as provided in the Agreement.

15.02 *Contractor's Warranty of Title*

- A. Contractor warrants and guarantees that title to all Work, materials, and equipment furnished under the Contract will pass to Owner free and clear of (1) all Liens and other title defects, and (2) all patent, licensing, copyright, or royalty obligations, no later than 7 days after the time of payment by Owner.

15.03 *Substantial Completion*

- A. When Contractor considers the entire Work ready for its intended use Contractor shall notify Owner and Engineer in writing that the entire Work is substantially complete and request that Engineer issue a certificate of Substantial Completion. Contractor shall at the same time

submit to Owner and Engineer an initial draft of punch list items to be completed or corrected before final payment.

- B. Promptly after Contractor's notification, Owner, Contractor, and Engineer shall make an inspection of the Work to determine the status of completion. If Engineer does not consider the Work substantially complete, Engineer will notify Contractor in writing giving the reasons therefor.
- C. If Engineer considers the Work substantially complete, Engineer will deliver to Owner a preliminary certificate of Substantial Completion which will fix the date of Substantial Completion. Engineer shall attach to the certificate a punch list of items to be completed or corrected before final payment. Owner shall have 7 days after receipt of the preliminary certificate during which to make written objection to Engineer as to any provisions of the certificate or attached punch list. If, after considering the objections to the provisions of the preliminary certificate, Engineer concludes that the Work is not substantially complete, Engineer will, within 14 days after submission of the preliminary certificate to Owner, notify Contractor in writing that the Work is not substantially complete, stating the reasons therefor. If Owner does not object to the provisions of the certificate, or if despite consideration of Owner's objections Engineer concludes that the Work is substantially complete, then Engineer will, within said 14 days, execute and deliver to Owner and Contractor a final certificate of Substantial Completion (with a revised punch list of items to be completed or corrected) reflecting such changes from the preliminary certificate as Engineer believes justified after consideration of any objections from Owner.
- D. At the time of receipt of the preliminary certificate of Substantial Completion, Owner and Contractor will confer regarding Owner's use or occupancy of the Work following Substantial Completion, review the builder's risk insurance policy with respect to the end of the builder's risk coverage, and confirm the transition to coverage of the Work under a permanent property insurance policy held by Owner. Unless Owner and Contractor agree otherwise in writing, Owner shall bear responsibility for security, operation, protection of the Work, property insurance, maintenance, heat, and utilities upon Owner's use or occupancy of the Work.
- E. After Substantial Completion the Contractor shall promptly begin work on the punch list of items to be completed or corrected prior to final payment. In appropriate cases Contractor may submit monthly Applications for Payment for completed punch list items, following the progress payment procedures set forth above.
- F. Owner shall have the right to exclude Contractor from the Site after the date of Substantial Completion subject to allowing Contractor reasonable access to remove its property and complete or correct items on the punch list.

15.04 *Partial Use or Occupancy*

- A. Prior to Substantial Completion of all the Work, Owner may use or occupy any substantially completed part of the Work which has specifically been identified in the Contract Documents, or which Owner, Engineer, and Contractor agree constitutes a separately functioning and usable part of the Work that can be used by Owner for its intended purpose without

significant interference with Contractor's performance of the remainder of the Work, subject to the following conditions:

1. At any time, Owner may request in writing that Contractor permit Owner to use or occupy any such part of the Work that Owner believes to be substantially complete. If and when Contractor agrees that such part of the Work is substantially complete, Contractor, Owner, and Engineer will follow the procedures of Paragraph 15.03.A through 15.03.E for that part of the Work.
2. At any time, Contractor may notify Owner and Engineer in writing that Contractor considers any such part of the Work substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work.
3. Within a reasonable time after either such request, Owner, Contractor, and Engineer shall make an inspection of that part of the Work to determine its status of completion. If Engineer does not consider that part of the Work to be substantially complete, Engineer will notify Owner and Contractor in writing giving the reasons therefor. If Engineer considers that part of the Work to be substantially complete, the provisions of Paragraph 15.03 will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.
4. No use or occupancy or separate operation of part of the Work may occur prior to compliance with the requirements of Paragraph 6.04 regarding builder's risk or other property insurance.

15.05 *Final Inspection*

- A. Upon written notice from Contractor that the entire Work or an agreed portion thereof is complete, Engineer will promptly make a final inspection with Owner and Contractor and will notify Contractor in writing of all particulars in which this inspection reveals that the Work, or agreed portion thereof, is incomplete or defective. Contractor shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

15.06 *Final Payment*

A. *Application for Payment*

1. After Contractor has, in the opinion of Engineer, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance, certificates of inspection, annotated record documents (as provided in Paragraph 7.12), and other documents, Contractor may make application for final payment.
2. The final Application for Payment must be accompanied (except as previously delivered) by:
 - a. all documentation called for in the Contract Documents;
 - b. consent of the surety, if any, to final payment;
 - c. satisfactory evidence that all title issues have been resolved such that title to all Work, materials, and equipment has passed to Owner free and clear of any Liens or other title defects, or will so pass upon final payment.

- d. a list of all duly pending Change Proposals and Claims; and
 - e. complete and legally effective releases or waivers (satisfactory to Owner) of all Lien rights arising out of the Work, and of Liens filed in connection with the Work.
3. In lieu of the releases or waivers of Liens specified in Paragraph 15.06.A.2 and as approved by Owner, Contractor may furnish receipts or releases in full and an affidavit of Contractor that: (a) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (b) all payrolls, material and equipment bills, and other indebtedness connected with the Work for which Owner might in any way be responsible, or which might in any way result in liens or other burdens on Owner's property, have been paid or otherwise satisfied. If any Subcontractor or Supplier fails to furnish such a release or receipt in full, Contractor may furnish a bond or other collateral satisfactory to Owner to indemnify Owner against any Lien, or Owner at its option may issue joint checks payable to Contractor and specified Subcontractors and Suppliers.
- B. *Engineer's Review of Final Application and Recommendation of Payment:* If, on the basis of Engineer's observation of the Work during construction and final inspection, and Engineer's review of the final Application for Payment and accompanying documentation as required by the Contract Documents, Engineer is satisfied that the Work has been completed and Contractor's other obligations under the Contract have been fulfilled, Engineer will, within 10 days after receipt of the final Application for Payment, indicate in writing Engineer's recommendation of final payment and present the final Application for Payment to Owner for payment. Such recommendation will account for any set-offs against payment that are necessary in Engineer's opinion to protect Owner from loss for the reasons stated above with respect to progress payments. Otherwise, Engineer will return the Application for Payment to Contractor, indicating in writing the reasons for refusing to recommend final payment, in which case Contractor shall make the necessary corrections and resubmit the Application for Payment.
- C. *Notice of Acceptability:* In support of its recommendation of payment of the final Application for Payment, Engineer will also give written notice to Owner and Contractor that the Work is acceptable, subject to stated limitations in the notice and to the provisions of Paragraph 15.07.
- D. *Completion of Work:* The Work is complete (subject to surviving obligations) when it is ready for final payment as established by the Engineer's written recommendation of final payment and issuance of notice of the acceptability of the Work.
- E. *Final Payment Becomes Due:* Upon receipt from Engineer of the final Application for Payment and accompanying documentation, Owner shall set off against the amount recommended by Engineer for final payment any further sum to which Owner is entitled, including but not limited to set-offs for liquidated damages and set-offs allowed under the provisions of this Contract with respect to progress payments. Owner shall pay the resulting balance due to Contractor within 30 days of Owner's receipt of the final Application for Payment from Engineer.

15.07 *Waiver of Claims*

- A. By making final payment, Owner waives its claim or right to liquidated damages or other damages for late completion by Contractor, except as set forth in an outstanding Claim,

appeal under the provisions of Article 17, set-off, or express reservation of rights by Owner. Owner reserves all other claims or rights after final payment.

- B. The acceptance of final payment by Contractor will constitute a waiver by Contractor of all claims and rights against Owner other than those pending matters that have been duly submitted as a Claim, or appealed under the provisions of Article 17.

15.08 *Correction Period*

- A. If within one year after the date of Substantial Completion (or such longer period of time as may be prescribed by the Supplementary Conditions or the terms of any applicable special guarantee required by the Contract Documents), Owner gives Contractor written notice that any Work has been found to be defective, or that Contractor's repair of any damages to the Site or adjacent areas has been found to be defective, then after receipt of such notice of defect Contractor shall promptly, without cost to Owner and in accordance with Owner's written instructions:
 - 1. correct the defective repairs to the Site or such adjacent areas;
 - 2. correct such defective Work;
 - 3. remove the defective Work from the Project and replace it with Work that is not defective, if the defective Work has been rejected by Owner, and
 - 4. satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others, or to other land or areas resulting from the corrective measures.
- B. Owner shall give any such notice of defect within 60 days of the discovery that such Work or repairs is defective. If such notice is given within such 60 days but after the end of the correction period, the notice will be deemed a notice of defective Work under Paragraph 7.17.B.
- C. If, after receipt of a notice of defect within 60 days and within the correction period, Contractor does not promptly comply with the terms of Owner's written instructions, or in an emergency where delay would cause serious risk of loss or damage, Owner may have the defective Work corrected or repaired or may have the rejected Work removed and replaced. Contractor shall pay all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or repair or such removal and replacement (including but not limited to all costs of repair or replacement of work of others). Contractor's failure to pay such costs, losses, and damages within 10 days of invoice from Owner will be deemed the start of an event giving rise to a Claim under Paragraph 12.01.B, such that any related Claim must be brought within 30 days of the failure to pay.
- D. In special circumstances where a particular item of equipment is placed in continuous service before Substantial Completion of all the Work, the correction period for that item may start to run from an earlier date if so provided in the Specifications.
- E. Where defective Work (and damage to other Work resulting therefrom) has been corrected or removed and replaced under this paragraph, the correction period hereunder with respect to such Work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.

- F. Contractor's obligations under this paragraph are in addition to all other obligations and warranties. The provisions of this paragraph are not to be construed as a substitute for, or a waiver of, the provisions of any applicable statute of limitation or repose.

ARTICLE 16—SUSPENSION OF WORK AND TERMINATION

16.01 *Owner May Suspend Work*

- A. At any time and without cause, Owner may suspend the Work or any portion thereof for a period of not more than 90 consecutive days by written notice to Contractor and Engineer. Such notice will fix the date on which Work will be resumed. Contractor shall resume the Work on the date so fixed. Contractor shall be entitled to an adjustment in the Contract Price or an extension of the Contract Times directly attributable to any such suspension. Any Change Proposal seeking such adjustments must be submitted no later than 30 days after the date fixed for resumption of Work.

16.02 *Owner May Terminate for Cause*

- A. The occurrence of any one or more of the following events will constitute a default by Contractor and justify termination for cause:
 - 1. Contractor's persistent failure to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment, or failure to adhere to the Progress Schedule);
 - 2. Failure of Contractor to perform or otherwise to comply with a material term of the Contract Documents;
 - 3. Contractor's disregard of Laws or Regulations of any public body having jurisdiction; or
 - 4. Contractor's repeated disregard of the authority of Owner or Engineer.
- B. If one or more of the events identified in Paragraph 16.02.A occurs, then after giving Contractor (and any surety) 10 days' written notice that Owner is considering a declaration that Contractor is in default and termination of the Contract, Owner may proceed to:
 - 1. declare Contractor to be in default, and give Contractor (and any surety) written notice that the Contract is terminated; and
 - 2. enforce the rights available to Owner under any applicable performance bond.
- C. Subject to the terms and operation of any applicable performance bond, if Owner has terminated the Contract for cause, Owner may exclude Contractor from the Site, take possession of the Work, incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere, and complete the Work as Owner may deem expedient.
- D. Owner may not proceed with termination of the Contract under Paragraph 16.02.B if Contractor within 7 days of receipt of notice of intent to terminate begins to correct its failure to perform and proceeds diligently to cure such failure.
- E. If Owner proceeds as provided in Paragraph 16.02.B, Contractor shall not be entitled to receive any further payment until the Work is completed. If the unpaid balance of the Contract Price exceeds the cost to complete the Work, including all related claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects,

attorneys, and other professionals) sustained by Owner, such excess will be paid to Contractor. If the cost to complete the Work including such related claims, costs, losses, and damages exceeds such unpaid balance, Contractor shall pay the difference to Owner. Such claims, costs, losses, and damages incurred by Owner will be reviewed by Engineer as to their reasonableness and, when so approved by Engineer, incorporated in a Change Order. When exercising any rights or remedies under this paragraph, Owner shall not be required to obtain the lowest price for the Work performed.

- F. Where Contractor's services have been so terminated by Owner, the termination will not affect any rights or remedies of Owner against Contractor then existing or which may thereafter accrue, or any rights or remedies of Owner against Contractor or any surety under any payment bond or performance bond. Any retention or payment of money due Contractor by Owner will not release Contractor from liability.
- G. If and to the extent that Contractor has provided a performance bond under the provisions of Paragraph 6.01.A, the provisions of that bond will govern over any inconsistent provisions of Paragraphs 16.02.B and 16.02.D.

16.03 *Owner May Terminate for Convenience*

- A. Upon 7 days' written notice to Contractor and Engineer, Owner may, without cause and without prejudice to any other right or remedy of Owner, terminate the Contract. In such case, Contractor shall be paid for (without duplication of any items):
 - 1. completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such Work;
 - 2. expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials, or equipment as required by the Contract Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead and profit on such expenses; and
 - 3. other reasonable expenses directly attributable to termination, including costs incurred to prepare a termination for convenience cost proposal.
- B. Contractor shall not be paid for any loss of anticipated profits or revenue, post-termination overhead costs, or other economic loss arising out of or resulting from such termination.

16.04 *Contractor May Stop Work or Terminate*

- A. If, through no act or fault of Contractor, (1) the Work is suspended for more than 90 consecutive days by Owner or under an order of court or other public authority, or (2) Engineer fails to act on any Application for Payment within 30 days after it is submitted, or (3) Owner fails for 30 days to pay Contractor any sum finally determined to be due, then Contractor may, upon 7 days' written notice to Owner and Engineer, and provided Owner or Engineer do not remedy such suspension or failure within that time, terminate the contract and recover from Owner payment on the same terms as provided in Paragraph 16.03.
- B. In lieu of terminating the Contract and without prejudice to any other right or remedy, if Engineer has failed to act on an Application for Payment within 30 days after it is submitted, or Owner has failed for 30 days to pay Contractor any sum finally determined to be due, Contractor may, 7 days after written notice to Owner and Engineer, stop the Work until payment is made of all such amounts due Contractor, including interest thereon. The

provisions of this paragraph are not intended to preclude Contractor from submitting a Change Proposal for an adjustment in Contract Price or Contract Times or otherwise for expenses or damage directly attributable to Contractor's stopping the Work as permitted by this paragraph.

ARTICLE 17—FINAL RESOLUTION OF DISPUTES

17.01 *Methods and Procedures*

- A. *Disputes Subject to Final Resolution:* The following disputed matters are subject to final resolution under the provisions of this article:
1. A timely appeal of an approval in part and denial in part of a Claim, or of a denial in full, pursuant to Article 12; and
 2. Disputes between Owner and Contractor concerning the Work, or obligations under the Contract Documents, that arise after final payment has been made.
- B. *Final Resolution of Disputes:* For any dispute subject to resolution under this article, Owner or Contractor may:
1. elect in writing to invoke the dispute resolution process provided for in the Supplementary Conditions;
 2. agree with the other party to submit the dispute to another dispute resolution process; or
 3. if no dispute resolution process is provided for in the Supplementary Conditions or mutually agreed to, give written notice to the other party of the intent to submit the dispute to a court of competent jurisdiction.

ARTICLE 18—MISCELLANEOUS

18.01 *Giving Notice*

- A. Whenever any provision of the Contract requires the giving of written notice to Owner, Engineer, or Contractor, it will be deemed to have been validly given only if delivered:
1. in person, by a commercial courier service or otherwise, to the recipient's place of business;
 2. by registered or certified mail, postage prepaid, to the recipient's place of business; or
 3. by e-mail to the recipient, with the words "Formal Notice" or similar in the e-mail's subject line.

18.02 *Computation of Times*

- A. When any period of time is referred to in the Contract by days, it will be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or on a day made a legal holiday by the law of the applicable jurisdiction, such day will be omitted from the computation.

18.03 *Cumulative Remedies*

- A. The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by Laws or Regulations, by special warranty or guarantee, or by other provisions of the Contract. The provisions of this paragraph will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right, and remedy to which they apply.

18.04 *Limitation of Damages*

- A. With respect to any and all Change Proposals, Claims, disputes subject to final resolution, and other matters at issue, neither Owner nor Engineer, nor any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, shall be liable to Contractor for any claims, costs, losses, or damages sustained by Contractor on or in connection with any other project or anticipated project.

18.05 *No Waiver*

- A. A party's non-enforcement of any provision will not constitute a waiver of that provision, nor will it affect the enforceability of that provision or of the remainder of this Contract.

18.06 *Survival of Obligations*

- A. All representations, indemnifications, warranties, and guarantees made in, required by, or given in accordance with the Contract, as well as all continuing obligations indicated in the Contract, will survive final payment, completion, and acceptance of the Work or termination of the Contract or of the services of Contractor.

18.07 *Controlling Law*

- A. This Contract is to be governed by the law of the state in which the Project is located.

18.08 *Assignment of Contract*

- A. Unless expressly agreed to elsewhere in the Contract, no assignment by a party to this Contract of any rights under or interests in the Contract will be binding on the other party without the written consent of the party sought to be bound; and, specifically but without limitation, money that may become due and money that is due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Contract.

18.09 *Successors and Assigns*

- A. Owner and Contractor each binds itself, its successors, assigns, and legal representatives to the other party hereto, its successors, assigns, and legal representatives in respect to all covenants, agreements, and obligations contained in the Contract Documents.

18.10 *Headings*

- A. Article and paragraph headings are inserted for convenience only and do not constitute parts of these General Conditions.

SUPPLEMENTARY CONDITIONS

These Supplementary Conditions amend or supplement the Standard General Conditions of the Construction Contract (No. C-700, 2018 Edition) and other provisions of the Contract Documents as indicated below. All provisions that are not so amended or supplemented remain in full force and effect.

The terms used in these Supplementary Conditions will have the meanings indicated in the General Conditions. Additional terms used in these Supplementary Conditions have the meanings stated below, which are applicable to both the singular and plural thereof.

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SC-4.01.A **Delete Paragraph 4.01.A in its entirety and insert the following in its place:**

- A. The Contract Times will commence to run on the day indicated in the Notice to Proceed. A Notice to Proceed may be given at any time within 30 days after the Effective Date of the Agreement. The intent is Issuance of Notice of Proceed on or about March 3, 2025, for Summer 2025 construction.

SC-5.03 **Add Paragraph 4., under 5.03.A and insert the following:**

4. No reports or explorations or tests of subsurface conditions at or contiguous to the Site are known to the Owner or Engineer.

SC-5.06 **Delete Paragraphs 5.06.A and 5.06.B in their entirety and insert the following:**

- A. No reports or explorations or tests of subsurface Hazardous Environmental conditions at or contiguous to the Site are known to the Owner or Engineer.

SC-6.01 **Add the following new paragraph immediately after Paragraph 6.01.H:**

- I. The contractor shall secure a maintenance bond with a company, which shall have been approved by the City's Attorney of the City of Watertown guaranteeing his work in all phases of construction for a period of

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two (2) years from the date of acceptance by the City which shall also cover all damages due to trench settlement.

- J. The face value of the maintenance bond shall be as follows: 20% of the base bid, of contracts up to and including \$50,000.00 and in no way less than \$5,000.00.
- K. For contracts in amounts above \$50,000.00, the face value of the maintenance bond shall be on basis of 10% of the base bid submitted. He shall leave the work in perfect order at completion and neither the final certificate of payment, nor any other provision of the contract, shall relieve the Contractor of the responsibility of negligence, for faulty materials, or workmanship within the extent and period as herein provided. Upon written notice, he shall remedy all defects due thereto and pay all expenses for any damage to other work resulting there from.

SC-6.02 Add the following subparagraph immediately after Paragraph 6.02.B:

- 1. Contractor may obtain worker's compensation insurance from an insurance company that has not been rated by A.M. Best, provided that such company (a) is domiciled in the state in which the project is located, (b) is certified or authorized as a worker's compensation insurance provider by the appropriate state agency, and (c) has been accepted to provide worker's compensation insurance for similar projects by the state within the last 12 months.

SC-6.02 Add the following subparagraph immediately after Paragraph 6.02.N:

- 1. If the Vendor's insurance policies should be non-renewed or canceled, or should expire during the life of this Agreement, the City shall be provided with a new certificate indicating the replacement policy information as requested. The City requires thirty (30) days prior written notice of cancellation fifteen (15) days for non-payment of premium from the Insurer, its agents, or representatives. Each Certificate of Insurance shall be endorsed to provide for 30 days' notice of cancellation, non-renewal or material change to the Certificate Holder and each additional insured except where Laws or Regulations require otherwise. The endorsement shall read: "No cancellation of or change in this policy shall become effective until after thirty (30) days' notice by the issuing company.

SC-6.03. Add the following new paragraph immediately after Paragraph 6.03.C:

- D. The limits of liability for insurance required by Article 6 of the General Conditions shall provide coverage for not less than those outlined within the Bidding Document Front End form, titled "Insurance and Bonding Information", issued by the City of Watertown or greater where required by Laws and Regulations:
 - 1. Additional Insured on Liability Policies of 6.03.C shall be as follows:
 - a. "City of Watertown"
 - b. "Aubertine and Currier Architects, Engineers & Land Surveyors, PLLC as Additional Insured."
 - 2. Coverage shall include at least the following designated hazard:
 - a. Premises and operation;
 - b. Independent Contractors;
 - c. Completed operations, including products;
 - d. Broad form property damage;
 - e. Contractual liability, covering indemnification assumed per requirements of the GENERAL CONDITIONS;
 - 3. Completed Operations Insurance:

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The completed operations insurance shall be maintained by Contractor for at least 1 year after substantial completion and Contractor shall furnish to OWNER evidence of continuation of completed operations insurance at substantial completion and annually thereafter for 1 years.

4. Furnish to the OWNER and other additional insured New York State Mandatory Workman's Compensation and Employer's Liability Insurance prior to contract execution.

SC-7.05 Add a subparagraphs under the title C. Engineer's Evaluation. The paragraph text is retitled, 7.05.C.1: A new paragraph is added to read as follows:

5. During Bidding. The Contract, if awarded, will be on the basis of materials and equipment specified or described in the Bidding Documents, or "or-equal" materials and equipment as defined in paragraph 7.05 of the General Conditions, or those substitute materials and equipment approved by the Engineer and identified by Addendum. The materials and equipment described in the Bidding Documents establish a standard of required type, function, and quality to be met by any proposed substitute or "or-equal" item. Request for Engineer's clarification of materials and equipment considered "or-equal" prior to the Effective Date of the Agreement must be received by the Engineer at least 5 days prior to the date for receipt of Bids. No item of material or equipment will be considered by Engineer as a substitute unless written request for approval has been submitted by Bidder and has been received by Engineer at least 5 days prior to the date for receipt of Bids. Each request shall conform to the requirements of Paragraph 7.05 of the General Conditions. The burden of proof of the merit of the proposed item is upon the Bidder. Engineer's decision of approval or disapproval of a proposed item will be final. If Engineer approves any proposed substitute item, such approval will be set forth in an Addendum issued to all prospective Bidders. Bidders shall not rely upon approvals made in any other manner.

SC-7.07.N Add a new paragraph immediately after Paragraph 7.07.M:

- N. The Contractor shall not award work valued at more than fifty (50%) percent of the Contract Price to Subcontractor(s), without prior written approval of the Owner.

SC-7.09.B Add a new paragraph immediately after Paragraph 7.09.A:

- B. Permit fees due to the City of Watertown shall be waived for this Project.

SC-7.10.B Add a new paragraph immediately after Paragraph 7.10.A:

- B. The OWNER is exempt from payment of Sales and Compensating Use Taxes of the State of New York and of its cities and counties and all materials and supplies sold to the OWNER pursuant to the provisions of this Contract. Those tools, machinery, and equipment or property leased by or to the CONTRACTOR or a SUBCONTRACTOR, or supplies and materials which even though they are consumed, are not incorporated into the completed project are not tax exempt. The CONTRACTOR and his SUBCONTRACTORS shall be responsible to pay all applicable taxes, including Sales and Compensating Use Taxes, on such leased tools, machinery, and equipment, or other property and upon all such unincorporated supplies and materials.

SC-11.02 Add a two new paragraph immediately after Paragraph 11.02.B:

- C. Four (4) executed copies (all with original signatures) of each change order shall be submitted.
- D. The Contract Price and/or Contract time may only be changed by a Change Order approved by the Watertown City Council or other Written Amendment to this agreement approved by the Watertown City Council.

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SC-14.02.B Revise Paragraph 14.02.B :

- B. Contractor is responsible for retaining and paying for service of an independent inspection/agency, as stated in 14.02.D.

SC-15.01.B Add the following to Paragraph 15.01.B.4:

4. No payments will be made that would deplete the retainage, place in escrow any funds that are required for retainage or invest the retainage for the benefit of the Contractor.

SC-15.01.B Add the following as Paragraph 15.01.B.5:

5. Four (4) executed copies (all with original signatures) of each Application for Payment shall be submitted. Voucher forms are not applicable.

SC-15.01.D Delete Paragraph 15.01.D.1. in its entirety and insert the following in its place:

1. The Application for Payment with Engineer's recommendations will be presented to the Owner for consideration. If the Owner finds the Application for Payment acceptable, the recommended amount less any reduction under the provisions of Paragraph 15.01.E will become due thirty (30) days after the Application for Payment is presented to the Owner, and the Owner will make payment to the Contractor.

SC-17.02 Add the following new paragraph immediately after Paragraph 17.01.

1. SC-17.02 Attorneys' Fees: For any matter subject to final resolution under this Article, the prevailing party shall be entitled to an award of its attorneys' fees incurred in the final resolution proceedings, in an equitable amount to be determined in the discretion of the court, arbitrator, arbitration panel, or other arbiter of the matter subject to final resolution, taking into account the parties' initial demand or defense positions in comparison with the final result.

Contractor's Application for Payment

Owner: _____	Owner's Project No.: _____
Engineer: _____	Engineer's Project No.: _____
Contractor: _____	Contractor's Project No.: _____
Project: _____	
Contract: _____	
Application No.: _____	Application Date: _____
Application Period: From _____ to _____	

1. Original Contract Price	\$	-
2. Net change by Change Orders	\$	-
3. Current Contract Price (Line 1 + Line 2)	\$	-
4. Total Work completed and materials stored to date (Sum of Column G Lump Sum Total and Column J Unit Price Total)	\$	-
5. Retainage		
a. _____ X \$ _____ - Work Completed	\$	-
b. _____ X \$ _____ - Stored Materials	\$	-
c. Total Retainage (Line 5.a + Line 5.b)	\$	-
6. Amount eligible to date (Line 4 - Line 5.c)	\$	-
7. Less previous payments (Line 6 from prior application)		
8. Amount due this application	\$	-
9. Balance to finish, including retainage (Line 3 - Line 4)	\$	-

Contractor's Certification

The undersigned Contractor certifies, to the best of its knowledge, the following:

(1) All previous progress payments received from Owner on account of Work done under the Contract have been applied on account to discharge Contractor's legitimate obligations incurred in connection with the Work covered by prior Applications for Payment;

(2) Title to all Work, materials and equipment incorporated in said Work, or otherwise listed in or covered by this Application for Payment, will pass to Owner at time of payment free and clear of all liens, security interests, and encumbrances (except such as are covered by a bond acceptable to Owner indemnifying Owner against any such liens, security interest, or encumbrances); and

(3) All the Work covered by this Application for Payment is in accordance with the Contract Documents and is not defective.

Contractor: _____

Signature: _____ **Date:** _____

Recommended by Engineer	Approved by Owner
By: _____	By: _____
Title: _____	Title: _____
Date: _____	Date: _____
Approved by Funding Agency	
By: _____	By: _____
Title: _____	Title: _____
Date: _____	Date: _____

Progress Estimate - Unit Price Work

Contractor's Application for Payment

Owner: _____	Owner's Project No.: _____
Engineer: _____	Engineer's Project No.: _____
Contractor: _____	Contractor's Project No.: _____
Project: _____	
Contract: _____	

Application No.: _____ Application Period: From _____ to _____ Application Date: _____

A	B	C	D	E	F	G	H	I	J	K	L	
Bid Item No.	Description	Contract Information				Work Completed		Materials Currently Stored (not in G) (\$)	Work Completed and Materials Stored to Date (H + I) (\$)	% of Value of Item (J / F) (%)	Balance to Finish (F - J) (\$)	
		Item Quantity	Units	Unit Price (\$)	Value of Bid Item (C X E) (\$)	Estimated Quantity Incorporated in the Work	Value of Work Completed to Date (E X G) (\$)					
Original Contract												
					-		-		-		-	
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Original Contract Totals					\$	-	\$	-	\$	-	\$	-



Kathy Hochul, Governor

Roberta Reardon, Commissioner

City of Watertown
Peter Partlow, Civil/Site Designer
522 Bradley St. A
Watertown NY 13601

Schedule Year 2024 through 2025
Date Requested 12/14/2023
PRC# 2023014501

Location Burlington Street
Project ID#
Project Type Full street reconstruction to include upgrading water, sanitary and storm utilities, road and sidewalk amenities.

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 Rate Case Number (PRC#) has been assigned to the schedule(s) for your project.

The schedule is effective from July 2024 through June 2025. 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

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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.

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 from 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 12226; 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 NYS DOL 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 journeyworkers 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 journeyworker'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 12226 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.



Kathy Hochul, Governor

Roberta Reardon, Commissioner

City of Watertown
Peter Partlow, Civil/Site Designer
522 Bradley St. A
Watertown NY 13601

Schedule Year 2024 through 2025
Date Requested 12/14/2023
PRC# 2023014501

Location Burlington Street
Project ID#
Project Type Full street reconstruction to include upgrading water, sanitary and storm utilities, road and sidewalk amenities.

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 12226

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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, <https://dol.ny.gov/public-work-and-prevailing-wage>

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 12226

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.

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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.

Employer Name:

IA 999 (09/16)

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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.

Your pay stub and wage notice received upon hire must clearly state your wage rate and supplement rate.

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:
<https://dol.ny.gov/bureau-public-work>



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) 568-5287		

* 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: _____

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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 12226

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

Jefferson County General Construction

Boilermaker **11/01/2024**

JOB DESCRIPTION Boilermaker **DISTRICT 7**

ENTIRE COUNTIES
 Cayuga, Clinton, Cortland, Franklin, Jefferson, Lewis, Madison, Oneida, Onondaga, Oswego, Seneca, St. Lawrence, Tompkins

WAGES
 Per hour: 07/01/2024

Boilermaker \$ 37.98

SUPPLEMENTAL BENEFITS

Per hour:
 Journeyworker \$ 26.62*
 + 1.48

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

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

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

NOTE: When a holiday falls on Sunday, the day observed by the State or Nation shall be observed. When Christmas Day and New Year's fall on Saturday, Friday will be observed as the holiday.

REGISTERED APPRENTICES

WAGES per hour: Six (6) month terms at the following percentage of Journeyworker's wage.

1st	2nd	3rd	4th	5th	6th	7th	8th
65%	65%	70%	75%	80%	85%	90%	95%

SUPPLEMENTAL BENEFITS per hour:

\$ 19.78*	\$ 19.78*	\$ 20.76*	\$ 21.73*	\$ 22.71*	\$ 23.69*	\$ 24.67*	\$ 25.64*
+ 1.48	+ 1.48	+ 1.48	+ 1.48	+ 1.48	+ 1.48	+ 1.48	+ 1.48

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

7-175

Carpenter - Building **11/01/2024**

JOB DESCRIPTION Carpenter - Building **DISTRICT 2**

ENTIRE COUNTIES
 Chemung, Cortland, Jefferson, Lewis, Oswego, Schuyler, St. Lawrence, Steuben, Tompkins

PARTIAL COUNTIES
 Allegany: Only the Township of Alfred.

WAGES
 Per hour: 07/01/2024 07/01/2025
 Additional

Carpenter	\$ 31.10	\$ 1.00*
Floor Coverer	31.10	1.00*
Carpet Layer	31.10	1.00*
Dry-Wall	31.10	1.00*
Diver-Wet Day	61.25	0.00
Diver -Dry Day	32.10	1.00*
Diver Tender	32.10	1.00*

*To be allocated at a later date

NOTE ADDITIONAL AMOUNTS PAID FOR THE FOLLOWING WORK LISTED BELOW (per hour worked):
 - Pile Drivers/Dock Builders shall receive \$0.25 per hour over the journeyworker's rate of pay when performing piledriving/dock building work.
 - Certified welders shall receive \$1.00 per hour over the journeyworker's rate of pay when the employee is required to be certified and performs DOT or ABS specified welding work

- When an employee performs work within a contaminated area on a State and/or Federally designated hazardous waste site, and where relevant State and/or Federal regulations require employees to be furnished and use or wear required forms of personal protection, then the employee shall receive his regular hourly rate plus \$1.50 per hour.
- Depth pay for Divers based upon deepest depth on the day of the dive (per diem payment):
 - 0' to 80' no additional fee
 - 81'to 100' additional \$.50 per foot
 - 101'to 150' additional \$0.75 per foot
 - 151'and deeper additional \$1.25 per foot
- Penetration pay for Divers based upon deepest penetration on the day of the dive (per diem payment):
 - 0' to 50' no additional fee
 - 51' to 100' additional \$.75 per foot
 - 101' and deeper additional \$1.00 per foot
- Diver rates applies to all hours worked on dive day.

SHIFT WORK

On Agency/Owner mandated shift work, the following rates will be applicable:

- 1st Shift - Regular Rate
- 2nd Shift - Premium of 7% of base wage per hour
- 3rd Shift - Premium of 14% of base wage per hour

Shift work shall be defined as implementing at least two (2) shifts in a twenty-four (24) consecutive hour period. Shift work must be for a minimum of three (3) consecutive days.

SUPPLEMENTAL BENEFITS

Per hour:

Journeyworker \$ 22.88*

*NOTE: For work performed inside the secure area of Nuclear Power Plants - benefits calculated at same premium as shown for overtime(per hour paid).

OVERTIME PAY

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

HOLIDAY

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

Note: Any holiday which occurs on Sunday shall be observed the following Monday. If Christmas falls on a Saturday, it shall be observed on the prior Friday.

REGISTERED APPRENTICES

Wages per hour (1300 hour terms at the following percentage of Journeyworker's base wage):

1st	2nd	3rd	4th
65%	70%	75%	80%

Supplemental Benefits per hour:

\$ 12.55	\$ 12.55	\$ 15.15	\$ 15.15
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NOTE ADDITIONAL AMOUNTS PAID TO APPRENTICES FOR THE FOLLOWING WORK LISTED BELOW (per hour worked):

- Pile Driving/Dock Builder apprentices shall receive an additional \$0.25 per hour worked when performing piledriving/dock building work.
- Certified Welders shall receive \$1.00 per hour over the apprentices rate of pay when the apprentice is required to be certified and performs DOT or ABS specified welding work.
- When an apprentice performs work within a contaminated area on a State and/or Federally designated hazardous waste site, and where relevant State and/or Federal regulations require the apprentice to be furnished and use or wear required forms of personal protection, then the apprentice shall receive his regular hourly rate plus \$1.50 per hour.

2-277B-CS

Carpenter - Building / Heavy&Highway

11/01/2024

JOB DESCRIPTION Carpenter - Building / Heavy&Highway

DISTRICT 2

ENTIRE COUNTIES

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

PARTIAL COUNTIES

Orange: The area lying on Northern side of Orange County demarcated by a line drawn from the Bear Mountain Bridge continuing west to the Bear Mountain Circle, continue North on 9W to the town of Cornwall where County Road 107 (also known as Quaker Rd) crosses under 9W, then east on County Road 107 to Route 32, then north on Route 32 to Orrs Mills Rd, then west on Orrs Mills Rd to Route 94, continue west and south on Route 94 to the Town of Chester, to the intersection of Kings Highway, continue south on Kings Highway to Bellvale Rd, west on Bellvale Rd to Bellvale Lakes Rd, then south on Bellvale Lakes Rd to Kain Rd, southeast on Kain Rd to Route 17A, then north and southeast along Route 17A to Route 210, then follow Route 210 to NJ Border.

WAGES

Wages per hour: 07/01/2024

Carpenter - ONLY for
Artificial Turf/Synthetic
Sport Surface \$ 36.48

Note - Does not include the operation of equipment. Please see Operating Engineers rates.

SUPPLEMENTAL BENEFITS

Per hour:

Journeyworker \$ 26.55

OVERTIME PAY

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

HOLIDAY

Paid: See (5) on HOLIDAY PAGE

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

Notes:

When a holiday falls upon a Saturday, it shall be observed on the preceding Friday. When a holiday falls upon a Sunday, it shall be observed on the following Monday.

An employee taking an unexcused day off the regularly scheduled day before or after a paid Holiday shall not receive Holiday pay.

REGISTERED APPRENTICES

Wages per hour (1300 hour terms at the following percentage of Journeyworker's wage):

1st	2nd	3rd	4th
65%	70%	75%	80%

Supplemental Benefits per hour:

\$18.58	\$19.14	\$21.24	\$21.79
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2-42AtSS

Carpenter - Heavy&Highway

11/01/2024

JOB DESCRIPTION Carpenter - Heavy&Highway

DISTRICT 2

ENTIRE COUNTIES

Broome, Cayuga, Chemung, Cortland, Delaware, Jefferson, Lewis, Onondaga, Oswego, Schuyler, Seneca, St. Lawrence, Steuben, Tioga, Tompkins, Yates

WAGES

Per hour 07/01/2024

Carpenter	\$ 38.28
Piledriver	38.28
Diver-Wet Day	63.28
Diver-Dry Day	39.28
Diver-Tender	39.28

NOTE ADDITIONAL AMOUNTS PAID FOR THE FOLLOWING WORK LISTED BELOW (per hour worked):

- State or Federal designated hazardous site, requiring protective gear shall be an additional \$2.50 per hour.
- Certified welders when required to perform welding work will receive an additional \$2.50 per hour.

ADDITIONAL NOTES PERTAINING TO DIVERS/TENDERS:

- Divers and Tenders shall receive one and one half (1 1/2) times their regular diver and tender rate of pay for Effluent and Slurry diving.
- Divers and tenders being paid at the specified rate for Effluent and Slurry diving shall have all overtime rates based on the specified rate plus the appropriate overtime rates (one and one half or two times the specified rate for Slurry and Effluent divers and tenders).
- The pilot of an ADS or submersible will receive one and one-half (1 1/2) times the Diver-Wet Day Rate for time submerged.
- All crew members aboard a submersible shall receive the Diver-Wet Day rate.
- Depth pay for Divers based upon deepest depth on the day of the dive (per diem payment):
 - 0' to 50' no additional fee
 - 51'to 100' additional \$.50 per foot
 - 101'to 150' additional \$0.75 per foot
 - 151'and deeper additional \$1.25 per foot
- Penetration pay for Divers based upon deepest penetration on the day of the dive (per diem payment):
 - 0' to 50' no additional fee
 - 51' to 100' additional \$.75 per foot
 - 101' and deeper additional \$1.00 per foot
- Diver rates applies to all hours worked on dive day.

SHIFT WORK

When project owner mandates a single irregular work shift, the Journeyworkers and Apprentices will receive an additional \$3.00 per hour. A single irregular work shift can start any time from 5:00 p.m. to 1:00 a.m.

SUPPLEMENTAL BENEFITS

Per hour:

Journeyworker \$ 26.55

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

HOLIDAY

Paid: See (5, 6) on HOLIDAY PAGE

Overtime: See (5, 6) on HOLIDAY PAGE

- In the event a Holiday falls on a Saturday, the Friday before will be observed as a Holiday. If a Holiday falls on a Sunday, then Monday will be observed as a Holiday.

- The employee must work their scheduled workday before and their scheduled workday after the holiday to receive holiday pay.

REGISTERED APPRENTICES

CAPRENTER APPRENTICES

Wages per hour (1040 hour terms at the following percentage of journeyworker's base wage):

1st	2nd	3rd	4th	5th
65%	70%	75%	80%	85%

Supplemental Benefits per hour:

\$ 18.58	\$ 19.14	\$ 21.19	\$ 21.74	\$ 22.29
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PILEDRIVER/DOCKBUILDER APPRENTICES

Wages per hour (1300 hour terms at the following percentage of journeyworker's base wage):

1st	2nd	3rd	4th
65%	70%	75%	80%

Supplemental Benefits per hour:

\$ 18.58	\$ 19.14	\$ 21.19	\$ 21.74
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NOTE ADDITIONAL AMOUNTS PAID PER HOUR WORKED TO APPRENTICES FOR SPECIFIC TYPES OF WORK PERFORMED:

- State or Federal designated hazardous site, requiring protective gear shall be an additional \$2.50 per hour.

- Certified welders when required to perform welding work will receive an additional \$2.50 per hour.

2-277HH-Bro

Electrician

11/01/2024

JOB DESCRIPTION Electrician

DISTRICT 6

ENTIRE COUNTIES

Clinton, Essex, Franklin, Jefferson, Lewis, St. Lawrence

WAGES

Per hour:	07/01/2024	04/01/2025 Additional	04/01/2026 Additional
Electrician	\$ 42.00	\$ 2.75*	\$ 2.60*
Teledata	42.00	2.75*	2.60*
Welder	44.00	2.75*	2.60*

* To be allocated at a later date.

NOTE: Additional premiums for the following work listed (Amounts subject to premiums):

- Additional \$1.50 per hour for work performed underground such as tunnels and mine shafts. Excludes manholes and walkway tunnels between buildings.

- Additional \$1.50 per hour for working 35 feet or more on scaffolds, ladders, towers, steeples, structural steel, or mechanical lifts over 65 feet.

SHIFT WORK

THE FOLLOWING RATES WILL APPLY ON ALL CONTRACTING AGENCY MANDATED SHIFTS WORKED BETWEEN THE HOURS LISTED BELOW. THE EMPLOYER MAY BE PERMITTED TO ADJUST THE STARTING HOURS OF THE SHIFT BY UP TO TWO (2) HOURS IF REQUIRED BY THE AGENCY. IF A SHIFT BEGINS OUTSIDE OF THE STATED SHIFT HOURS, THE RATE PAID WOULD BE DETERMINED BY WHAT SHIFT THE MAJORITY OF HOURS WERE WORKED.

1st shift:	8:00 AM to 4:30 PM	Regular wage rate
2nd shift:	4:30 PM to 1:00 AM	Regular wage rate plus 17.3%
3rd shift:	12:30 AM to 9:00 AM	Regular wage rate plus 31.4%

SUPPLEMENTAL BENEFITS

Per hour:

Journeyworker	\$ 24.63 plus 5.75% of hourly wage paid*
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* NOTE: THE 5.75% IS BASED ON THE HOURLY WAGE PAID, STRAIGHT TIME RATE OR PREMIUM TIME RATE.

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

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) on HOLIDAY PAGE

REGISTERED APPRENTICES

WAGES per hour: Hourly terms at the following percentage of Journeyworker's wage.

	1-1000	to 2000	to 3500	to 5000	to 6500	to 8000
	45%	50%	55%	60%	70%	80%
Electrician	\$18.90	\$21.00	\$23.10	\$25.20	\$29.40	\$33.60
Tunnel	\$20.40	\$22.50	\$24.60	\$26.70	\$30.90	\$35.10

SUPPLEMENTAL BENEFITS per hour:

1st & 2nd term \$ 11.67*

All other terms \$ 24.63*

* PLUS 5.75% OF HOURLY WAGE PAID, STRAIGHT TIME RATE OR PREMIUM TIME RATE.

6-910

Elevator Constructor

11/01/2024

JOB DESCRIPTION Elevator Constructor

DISTRICT 6

ENTIRE COUNTIES

Broome, Cayuga, Chenango, Cortland, Franklin, Jefferson, Lewis, Onondaga, Oswego, St. Lawrence, Tioga, Tompkins

PARTIAL COUNTIES

Delaware: Only the towns of: Tompkins, Walton, Masonville, Sidney, Franklin and Deposit.

Madison: Only the towns of: Cazenovia, DeRuyter, Eaton, Fenner, Georgetown, Lebanon, Lenox, Nelson and Sullivan.

Oneida: Only the towns of: Camden, Florence and Vienna.

WAGES

Per hour:	07/01/2024	01/01/2025	01/01/2026
Elevator Constructor	\$ 56.01	\$ 58.455	\$ 61.003
Helper	39.21	40.92	42.70

SUPPLEMENTAL BENEFITS

Per hour:

Journeyworker	\$ 37.885*	\$ 38.435*	\$ 38.985*
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*NOTE - add 6% of regular hourly rate for all hours worked. Add 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 holiday falls on a Saturday, it shall be observed on Friday. When a holiday falls on Sunday, it shall be observed on Monday.

REGISTERED APPRENTICES

WAGES per hour: 1 year terms at the following percentage of the Elevator Constructor wage.

0-6 months	6-12 months	2nd year	3rd year	4th year
50%	55%	65%	70%	80%

SUPPLEMENTAL BENEFITS per hour:

0-6 months: 6% of the hourly apprentice rate paid, no additional supplemental benefits.

All other terms: Same as Journeyworker

6-62.1

Glazier **11/01/2024**

JOB DESCRIPTION Glazier **DISTRICT 5**

ENTIRE COUNTIES
Jefferson, Lewis, Livingston, Monroe, Ontario, Seneca, St. Lawrence, Wayne, Yates

WAGES
Per hour: 07/01/2024

Glazier \$ 29.05

SUPPLEMENTAL BENEFITS
Per hour:

Journeyman \$ 30.70

OVERTIME PAY
See (B, E, E2*, Q, Note) on OVERTIME PAGE.
*Note - Or circumstances beyond the control of the employer.

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

REGISTERED APPRENTICES
1000 hour terms

Appr. 1st term: \$ 18.00
Appr. 2nd term: 19.00
Appr. 3rd term: 20.00
Appr. 4th term: 21.00
Appr. 5th term: 22.00
Appr. 6th term: 23.00
Appr. 7th term: 24.00
Appr. 8th term: 25.00

Supplemental Benefits per hour:

Appr. 1st term \$ 14.25
Appr. 2nd term 14.25
Appr. 3rd term 20.25
Appr. 4th term 20.25
Appr. 5th term 21.25
Appr. 6th term 21.25
Appr. 7th term 22.25
Appr. 8th term 22.25

5-677.1

Insulator - Heat & Frost **11/01/2024**

JOB DESCRIPTION Insulator - Heat & Frost **DISTRICT 7**

ENTIRE COUNTIES
Broome, Cayuga, Chemung, Chenango, Cortland, Herkimer, Jefferson, Lewis, Madison, Oneida, Onondaga, Oswego, Otsego, Schuyler, Seneca, St. Lawrence, Tioga, Tompkins

WAGES
Per hour: 07/01/2024

Asbestos Installer \$ 41.50
Insulation Installer 41.50
(On mechanical systems only)

SHIFT WORK
The following rates will apply on all contracting agency-mandated shifts worked:

1st Shift \$ 41.50
2nd Shift 47.72
3rd Shift 49.80

SUPPLEMENTAL BENEFITS
Per hour:

Journeyworker \$ 25.09

OVERTIME PAY

See (*B1, **K, P) on OVERTIME PAGE

*NOTE: First 10 hours on Saturday.

**NOTE: Holidays that fall on Sunday are subject to double time.

HOLIDAY

Paid: See (1) on HOLIDAY PAGE

Overtime: See (2*,4,6,28) on HOLIDAY PAGE

*Triple time for Labor Day if worked.

REGISTERED APPRENTICES

WAGES per hour: One (1) year terms at the following percentage of Journeyworker's wage.

1st	2nd	3rd	4th
60%	70%	80%	90%
\$ 24.90	\$ 29.05	\$ 33.20	\$ 37.35

SUPPLEMENTAL BENEFITS per hour:

\$ 22.59	\$ 22.59	\$ 25.09	\$ 25.09
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7-30-Syracuse

Ironworker

11/01/2024

JOB DESCRIPTION Ironworker

DISTRICT 6

ENTIRE COUNTIES

Broome, Cayuga, Cortland, Onondaga, Oswego, Seneca, Tioga, Tompkins

PARTIAL COUNTIES

Chenango: Only the townships of Afton, Bainbridge, Coventry, German, Greene, Guilford, Lincklaen, McDonough, Norwich, Otselic, Oxford, Pharsalia, Pitcher, Preston and Smithville.

Jefferson: Only the townships of Adams, Alexandria, Brownville, Cape Vincent, Clayton, Ellisburg, Henderson, Hounsfield, LeRay, Lorraine, Lyme, Orleans, Pamela, Rodman, Rutland, Theresa, Watertown and Worth.

Madison: Only the townships of Cazenovia, DeRuyter, Fenner, Georgetown, Lenox, Lincoln, Nelson, Smithfield and Sullivan.

Schuyler: Only the townships of Cayuta, Catharine, Hector and Montour.

Wayne: Only the townships of Butler, Galen, Huron, Rose, Savannah and Wolcott.

WAGES

Structural, Reinforcing, Re-bar, Machinery Mover & Rigger, Ornamental & Curtain Wall, Window Wall, Pre-Glazed Metal Framed Windows Attached to Steel or Masonry Including Caulking, Fence Erector (Chain Link/Security), Sheeter/Bridge Rail, Pre-Cast Erector, Stone Derrickman, Pre-Engineered Building Erector, Welder

Per hour:	07/01/2024	07/01/2025	07/01/2026
		Additional	Additional
Ironworker	\$ 34.65	\$ 2.66*	\$ 2.76*

*To be allocated at a later date.

SHIFT WORK

Multiple shifts mandated by the project owner. All shifts will be eight (8) hours.

1st Shift	\$ 34.65	
2nd Shift	38.12	Starting times between 2PM and 7PM
3rd Shift	39.85	Starting times between 7PM and 12AM

WHEN A SINGLE IRREGULAR SHIFT IS WORKED, WITH START TIMES BASED ON SECOND AND THIRD SHIFTS, ADD 10% TO THE 1ST SHIFT WAGE RATE POSTED ABOVE.

SUPPLEMENTAL BENEFITS

Per hour:

Journeyworker \$ 31.73

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

HOLIDAY

Paid: See (1) on HOLIDAY PAGE

Overtime: See (5, 6) on HOLIDAY PAGE

NOTE: Any holiday which occurs on Saturday shall be observed on the preceding Friday. Any holiday which occurs on Sunday shall be observed the following Monday.

REGISTERED APPRENTICES

WAGES per hour: One year terms at the following rates.

1st	2nd	3rd	4th
\$ 21.50	\$ 23.50	\$ 25.50	\$ 27.50

SUPPLEMENTAL BENEFITS per hour:

1st year	\$ 12.53
2nd year	20.86
3rd year	22.05
4th year	23.24

6-60

Ironworker

11/01/2024

JOB DESCRIPTION Ironworker

DISTRICT 7

ENTIRE COUNTIES

Franklin, Herkimer, Lewis, Oneida, St. Lawrence

PARTIAL COUNTIES

Chenango: Only the Townships of Columbus, New Berlin, North Norwich, Plymouth, Sherburne and Smyrna.

Fulton: Only the Townships of Caroga, Ephratah, Oppenheim, and Stratford.

Hamilton: Only the Townships of Arietta, Indian Lake, Inlet, Lake Pleasant, Long Lake and Morehouse.

Jefferson: Only the Townships of Antwerp, Champion, Philadelphia and Wilna.

Madison: Only the Townships of Brookfield, Eaton, Hamilton, Lebanon, Madison, Oneida and Stockbridge.

Montgomery: Only the Townships of Canajoharie, Minden, Palatine and St. Johnsville.

Otsego: Only the Townships of Burlington, Cherry Valley, Decatur, Edmeston, Exeter, Hartwick, Middlefield, New Lisbon, Otsego, Pittsfield, Plainfield, Richfield, Roseboom, Springfield and Westford, and the Village of Cooperstown.

WAGES

Per hour:	07/01/2024	07/01/2025 Additional	07/01/2026 Additional
Structural/Reinforcing	\$ 33.50	\$ 2.63*	\$ 2.74*
Mach. Mover/Ornamental	33.50	2.63*	2.74*
Stone Derrickman	33.50	2.63*	2.74*
Chain Link Fence	33.50	2.63*	2.74*
Sheeter Ironworker	33.50	2.63*	2.74*
Pre-Engineered Building	33.50	2.63*	2.74*
Window Erector	33.50	2.63*	2.74*
Precast Erector	33.50	2.63*	2.74*
Welder	33.50	2.63*	2.74*

*To be allocated at a later date.

SUPPLEMENTAL BENEFITS

Per hour:

Journeyworker	\$ 32.28
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OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

HOLIDAY

Paid: See (1) on HOLIDAY PAGE

Overtime: See (5, 6) on HOLIDAY PAGE

NOTE: Any holiday which occurs on Sunday shall be observed the following Monday. Any holiday which occurs on Saturday shall be observed the previous Friday.

REGISTERED APPRENTICES

WAGES per hour: 1500 hour terms at the following wage.

1-1500hrs	\$ 21.50
1501-3000hrs	23.50
3001-4500hrs	25.50
4501-6000hrs	27.50

SUPPLEMENTAL BENEFITS per hour:

1-1500hrs	\$ 13.69
1501-3000hrs	22.06
3001-4500hrs	23.26
4501-6000hrs	24.45

7-440

Laborer - Building

11/01/2024

JOB DESCRIPTION Laborer - Building

DISTRICT 7

ENTIRE COUNTIES

Franklin, Jefferson, Lewis, St. Lawrence

WAGES

Group #1: All Laborers (except as otherwise noted below).
Group #2: Hazardous Waste & Asbestos removal.
Group #3: Wind & Solar Worker*.

Wages per hour:

07/01/2024

Building Laborer:

Group # 1	\$ 28.03
Group # 2	29.53
Group # 3	28.53

NOTE: Building Laborer rates also apply on any masonry-type construction (block or brick with mortar), and on parking garages.

* Applies when performing delivery handling and site readiness for all solar panels and wind turbines, whether on land or water. Not applicable to the installation/assembly of solar photovoltaic panels or racking.

SUPPLEMENTAL BENEFITS

Per hour:

Journeyworker \$ 26.00

OVERTIME PAY

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

HOLIDAY

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

REGISTERED APPRENTICES

WAGES per hour:

(1000 Hour) terms at the following percentages of Journeyworker's wage:

to 1000	to 2000	to 3000	to 4000
70%	80%	90%	95%

SUPPLEMENTAL BENEFITS per hour:

All Terms: Same as Journeyworker

7-1822

Laborer - Heavy&Highway

11/01/2024

JOB DESCRIPTION Laborer - Heavy&Highway

DISTRICT 7

ENTIRE COUNTIES

Franklin, Jefferson, Lewis, St. Lawrence

WAGES

GROUP A: Drill Helper, Flagmen, Outboard and Hand Boats.

GROUP B: BASIC RATE: Bull Float (where used for strike off only), Chain Saw, Concrete Aggregate Bin, Concrete Bootman, Gin Buggy, Hand or Machine Vibrator, Jack Hammer, Mason Tender, Mortar Mixer, Pavement Breaker, Handlers of All Steel Mesh, Small Generators for Laborers' Tools, Installation of Bridge Drainage Pipe, Pipe Layers, Vibrator Type Rollers, Tamper, Drill Doctor, Water Pump Operator (1-1/2" and Single Diaphragm) Nozzle (Asphalt, Gunite, Seeding, and Sand Blasting), Laborers on Chain Link Fence Erection, Rock Splitter & Power Unit, Pusher Type Concrete Saw and All Other Gas, Electric, Oil, and Air Tool Operators, Wrecking Laborer.

GROUP C: Drilling Equipment - only where a separate air compressor unit supplies power, Acetylene Torch Operators, Asphalt Raker, Powder Man, Tail or Screw Operator on Asphalt Paver.

GROUP D: Blasters, Form Setters, Stone or Granite Curb Setters.

GROUP E: Hazardous Waste Removal Work when designated by State/Federal as hazardous waste site and regulations require employees wear required personal protection.

Per hour: 07/01/2024

GROUP A	\$ 33.32
GROUP B	33.52
GROUP C	33.72
GROUP D	33.92
GROUP E	36.52

SHIFT WORK

A single irregular work shift starting any time between 5:00 PM and 1:00 AM on governmental mandated night work shall be paid an additional \$3.00 per hour. Night work, when mandated by DOT shall be paid an additional \$3.00 per hour.

SUPPLEMENTAL BENEFITS

Per hour:

Journeyworker \$ 28.30

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

HOLIDAY

Paid: See (5, 6) on HOLIDAY PAGE

Overtime: See (5, 6) on HOLIDAY PAGE

NOTE: If a holiday falls on Saturday, it will be celebrated on Saturday. Employees who work a Saturday holiday shall be paid double time plus the holiday pay. If a holiday falls on Sunday, it will be celebrated on Monday. Employees who work a Sunday holiday shall be paid double time. Employees who work on Monday shall be paid double time plus the holiday pay. Accordingly, the Monday following the Sunday is treated as the holiday.

REGISTERED APPRENTICES

WAGES per hour: 1000 hour terms at the following percentage of Journeyworker's GROUP B wage.

1st	2nd	3rd	4th
70%	80%	90%	95%

SUPPLEMENTAL BENEFITS per hour:

All Terms: Same as Journeyworker

7-1822/2h(2)

Laborer - Tunnel

11/01/2024

JOB DESCRIPTION Laborer - Tunnel

DISTRICT 7

ENTIRE COUNTIES

Franklin, Jefferson, Lewis, St. Lawrence

WAGES

GROUP A: General Laborer.

GROUP B: Change Houseman, Miners and all Machine Men, Safety Miner, all shaft work, Caisson Work, Drilling, Blow Pipe, all Air Tools, Tugger, Scaling, Nipper, Guniting pot to Nozzle, Bit Grinder, Signal Man (top and bottom), Concrete men, Shield-driven tunnels, Mixed face and soft ground, liner plate tunnels in free air.

GROUP C: Hazardous Waste Work on a State and or Federally designated waste site, and where relevant regulations require employees to use personal protection.

Per hour: 07/01/2024

GROUP A	\$ 36.50
GROUP B	36.70
GROUP C	39.50

SHIFT WORK

A single irregular work shift starting any time between 5:00 PM and 1:00 AM on governmental mandated night work shall be paid an additional \$3.00 per hour.

SUPPLEMENTAL BENEFITS

Per hour:

Journeyworker \$ 28.30

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

HOLIDAY

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

NOTE: If a holiday falls on Saturday, it will be celebrated on Friday. If a holiday falls on Sunday, it will be celebrated on Monday. In the event that men work on this Sunday holiday, they shall be paid double time. In the event that men work on Monday, they shall be compensated at triple time. Accordingly, the Monday following the Sunday is treated as the holiday.

REGISTERED APPRENTICES

WAGES per hour: 1000 hour terms at the following percentage of Journeyworker's GROUP B wage:

1st	2nd	3rd	4th
70%	80%	90%	95%

SUPPLEMENTAL BENEFITS per hour:

All Terms: Same as Journeyworker

7-1822T(2)

Lineman Electrician

11/01/2024

JOB DESCRIPTION Lineman Electrician

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, Wyoming, Yates

WAGES

A 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, assembly of all electrical materials, conduit, pipe, 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.

Crane Operators: Operation of any type of crane on line projects.

Crawler Backhoe: Operation of tracked excavator/crawler backhoe with 1/2 yard bucket or larger on line projects.

Digging Machine Operator: All other digging equipment and augering on line projects.

A 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.

NOTE: Includes Teledata Work within ten (10) feet of High Voltage Transmission Lines. Also includes digging of holes for poles, anchors, footer, and foundations for electrical equipment.

Below rates applicable on all overhead and underground distribution and maintenance work, and all overhead and underground transmission line work and the installation of fiber optic cable where no other construction trades are or have been involved. Includes access matting for line work.

Per hour: 07/01/2024

Group A:	
Lineman, Technician	\$ 58.90
Crane, Crawler Backhoe	58.90
Welder, Cable Splicer	58.90

Group B:	
Digging Mach. Operator	53.01
Tractor Trailer Driver	50.07
Groundman, Truck Driver	47.12
Equipment Mechanic	47.12
Flagman	35.34

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

Below rates applicable on all electrical sub-stations, switching structures, fiber optic cable and all other work not defined as "Utility outside electrical work." Includes access matting for line work.

Group A:

Lineman, Technician	\$ 58.90
Crane, Crawler Backhoe	58.90
Cable Splicer	64.79
Certified Welder, Pipe Type Cable	61.85

Group B:

Digging Mach. Operator	53.01
Tractor Trailer Driver	50.07
Groundman, Truck Driver	47.12
Equipment Mechanic	47.12
Flagman	35.34

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

Below rates applicable on all switching structures, maintenance projects, railroad catenary install/maintenance third rail installation, bonding of rails and pipe type cable and installation of fiber optic cable. Includes access matting for line work.

Group A:

Lineman, Tech, Welder	\$ 60.22
Crane, Crawler Backhoe	60.22
Cable Splicer	66.24
Certified Welder, Pipe Type Cable	63.23

Group B:

Digging Mach. Operator	54.20
Tractor Trailer Driver	51.19
Groundman, Truck Driver	48.18
Equipment Mechanic	48.18
Flagman	36.13

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

Below rates applicable on all overhead and underground transmission line work & fiber optic cable where other construction trades are or have been involved. This applies to transmission line work only, not other construction. Includes access matting for line work.

Group A:

Lineman, Tech, Welder	\$ 61.41
Crane, Crawler Backhoe	61.41

Group B:

Digging Mach. Operator	55.27
Tractor Trailer Driver	52.20
Groundman, Truck Driver	49.13
Equipment Mechanic	49.13
Flagman	36.85

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

SHIFT WORK

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 %

SUPPLEMENTAL BENEFITS

Per hour:

07/01/2024

Group A	\$ 30.90 *plus 7% of the hourly wage paid
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Group B	\$ 26.90
---------	----------

*plus 7% of
 the hourly
 wage paid

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

OVERTIME PAY

See (B, E, Q, X) on OVERTIME PAGE. NOTE: Double time for all emergency work designated by the Dept. of Jurisdiction.
 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 Journeyworker's Lineman wage.

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

SUPPLEMENTAL BENEFITS per hour:

07/01/2024
 \$ 26.90
 *plus 7% of
 the hourly
 wage paid

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

6-1249a

Lineman Electrician - Teledata

11/01/2024

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).

	07/01/2024	01/01/2025
Cable Splicer	\$ 39.24	\$ 40.81
Installer, Repairman	\$ 37.24	\$ 38.73
Teledata Lineman	\$ 37.24	\$ 38.73
Tech., Equip. Operator	\$ 37.24	\$ 38.73
Groundman	\$ 19.74	\$ 20.53

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

SHIFT WORK

THE FOLLOWING RATES APPLY WHEN THE CONTRACTING AGENCY MANDATES MULTIPLE SHIFTS OF AT LEAST FIVE (5) DAYS DURATION ARE WORKED. WHEN TWO (2) OR THREE (3) SHIFTS ARE WORKED THE FOLLOWING RATES APPLY:

1ST SHIFT	REGULAR RATE
2ND SHIFT	REGULAR RATE PLUS 10%
3RD SHIFT	REGULAR RATE PLUS 15%

SUPPLEMENTAL BENEFITS

Per hour:	07/01/2024	01/01/2025
Journeyworker	\$ 5.70	\$ 5.70

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

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

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 **11/01/2024**

JOB DESCRIPTION Lineman Electrician - Traffic Signal, Lighting **DISTRICT 6**

ENTIRE COUNTIES

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

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.

Crane Operators: Operation of any type of crane on Traffic Signal/Lighting projects.
 Crawler Backhoe: Operation of tracked excavator/crawler backhoe with 1/2 yard bucket or larger on Traffic Signal/Lighting projects.
 Digging Machine Operator: All other digging equipment and augering on Traffic Signal/Lighting projects.

A 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.

Per hour: 07/01/2024

Group A:
 Lineman, Technician \$ 50.54
 Crane, Crawler Backhoe 50.54
 Certified Welder 53.07

Group B:
 Digging Machine 45.49
 Tractor Trailer Driver 42.96
 Groundman, Truck Driver 40.43
 Equipment Mechanic 40.43
 Flagman 30.32

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.

SHIFT WORK

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%

SUPPLEMENTAL BENEFITS

Per hour worked:

07/01/2024

Group A \$ 30.90
 *plus 7% of
 the hourly
 wage paid

Group B \$ 26.90
 *plus 7% of
 the hourly
 wage paid

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

OVERTIME PAY

See (B, E, Q, X) on OVERTIME PAGE. NOTE: Double time for all emergency work designated by the Dept. of Jurisdiction.
 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 Journeyworker's Lineman wage.

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

SUPPLEMENTAL BENEFITS per hour:

07/01/2024

\$ 26.90
 *plus 7% of
 the hourly
 wage paid

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

6-1249a-LT

Lineman Electrician - Tree Trimmer

11/01/2024

JOB DESCRIPTION Lineman Electrician - Tree Trimmer

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, Wyoming, Yates

WAGES

Applies to line clearance, tree work and right-of-way preparation on all new or existing energized overhead or underground electrical, telephone and CATV lines. This also includes stump removal near underground energized electrical lines including telephone and CATV lines.

Per hour: 07/01/2024

Tree Trimmer	\$ 31.44
Equipment Operator	27.80
Equipment Mechanic	27.80
Truck Driver	23.15
Groundman	19.07
Flag person	15.00*

*NOTE-Rate effective on 01/01/2025 - \$15.50 due to minimum wage increase.

SUPPLEMENTAL BENEFITS

Per hour:

07/01/2024

Journeyworker \$ 10.48
*plus 4.5% of
the hourly
wage paid

* The 4.5% is based on the hourly wage paid, straight time rate or premium rate.

OVERTIME PAY

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

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, 15) on HOLIDAY PAGE

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

NOTE: All paid holidays falling on a Saturday shall be observed on the preceding Friday. All paid holidays falling on a Sunday shall be observed on the following Monday.

6-1249TT

Mason - Building

11/01/2024

JOB DESCRIPTION Mason - Building

DISTRICT 12

ENTIRE COUNTIES

Herkimer, Jefferson, Lewis, Oneida, St. Lawrence

PARTIAL COUNTIES

Madison: Entire County except the Townships of Sullivan & Cazenovia

WAGES

Per hour 07/01/2024

Tile/Marble/Terrazzo

Setter \$ 35.85
Finisher 28.52

SUPPLEMENTAL BENEFITS

Per hour worked

Journeyman Setters \$ 20.01
Journeyman Finishers 19.30

OVERTIME PAY

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

HOLIDAY

Paid: See (1) on HOLIDAY PAGE

Overtime: See (5, 6) on HOLIDAY PAGE

REGISTERED APPRENTICES

Wages per hour

Hour terms at the following percentage of journeyman's wage

Setter:
1st term 500 hours 60%
2nd term 1000 hours 70%
3rd term 1000 hours 80%
4th term 1000 hours 85%
5th term 1000 hours 90%
6th term 1500 hours 95%

Finisher:
1st term 500 HOURS 70%
2ND term 1000 HOURS 80%
3RD term 1000 HOURS 90%
4TH term 1200 HOURS 95%

Supplemental Benefits per hour worked

Setter:	
1st & 2nd Term	\$ 12.41
3rd & 4th Term	16.21
5th Term	18.11
6th Term	20.01
Finishers:	
1st & 2nd Term	\$ 11.76
All others	15.53

12-2TS.2

Mason - Building **11/01/2024**

JOB DESCRIPTION Mason - Building **DISTRICT 12**

ENTIRE COUNTIES

Jefferson

PARTIAL COUNTIES

Lewis: The townships of Diana, Croghan, Denmark, Pickney, Harrisburg, Lowville, New Breman, Watson, Martinsburg, Montague, Highmarket, & Greig

WAGES

Per hour 07/01/2024

Bricklayer/Blocker	\$38.69
Cement Mason(Bldg)	38.69
Plasterer/Fireproofing*	38.69
Stone Mason	38.69
Concrete Cutter	38.69
Pointer/Caulker/Cleaner	38.69

Additional \$.25 per hr. for work in restricted radiation area of atomic plant.

Additional \$5.00 per day more for employees working on a two-point suspension scaffold (Pointer, Caulker, and Cleaner are excluded).

(*Fireproof on Structural only.

SUPPLEMENTAL BENEFITS

Per hour worked

Journeyman \$ 23.60

OVERTIME PAY

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

HOLIDAY

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

REGISTERED APPRENTICES

Wages per hour

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

1st	2nd	3rd	4th	5th	6th	7th	8th
60%	60%	65%	70%	75%	80%	85%	90%

Supplemental Benefits per hour worked

All Terms \$ 23.60

12-2b.5

Mason - Heavy&Highway **11/01/2024**

JOB DESCRIPTION Mason - Heavy&Highway **DISTRICT 12**

ENTIRE COUNTIES

Albany, Cayuga, Clinton, Columbia, Essex, Franklin, Fulton, Greene, Hamilton, Herkimer, Jefferson, Lewis, Madison, Montgomery, Oneida, Oswego, Rensselaer, Saratoga, Schenectady, Schoharie, St. Lawrence, Warren, Washington

PARTIAL COUNTIES

Onondaga: For Heavy & Highway Cement Mason or Plaster Work in Onondaga County, refer to Mason-Heavy&Highway tag 1-2h/h on.

WAGES

Per hour
 07/01/2024
 Mason &
 Bricklayer \$ 42.26

Additional \$1.00 per hour for work on any swing scaffold or staging suspended by means of ropes or cables.

SUPPLEMENTAL BENEFITS

Per hour worked

Journeyman \$ 22.43

OVERTIME PAY

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

HOLIDAY

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

REGISTERED APPRENTICES

Wages per hour

750 HR TERMS at the following percent of Journeyman's wage

1st	2nd	3rd	4th	5th	6th	7th	8th
60%	60%	65%	70%	75%	80%	85%	90%

Supplemental Benefits per hour worked

0 to 500 Hours \$ 13.68
 All Other 22.43

12-2hh.1

Millwright

11/01/2024

JOB DESCRIPTION Millwright

DISTRICT 6

ENTIRE COUNTIES

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

WAGES

THE FOLLOWING RATE APPLIES TO ANY GAS/STEAM TURBINE AND OR RELATED COMPONENT WORK, INCLUDING NEW INSTALLATIONS OR MAINTENANCE AND ANY/ALL WORK PERFORMED WITHIN THE PROPERTY LIMITS OF A NUCLEAR FACILITY.

Per hour:	07/01/2024	07/01/2025
Millwright - Power Generation	\$ 45.00	Additional \$2.50*

* To be allocated at a later date.

NOTE: ADDITIONAL PREMIUMS PAID FOR THE FOLLOWING WORK LISTED BELOW (amount subject to any overtime premiums):

- Certified Welders shall receive an additional \$1.75 per hour provided they are directed to perform Certified Welding.
- If a work site has been declared a hazardous site by the Owner and the use of protective gear (including, as a minimum, air purifying canister-type chemical respirators) is required, then that employee shall receive an additional \$1.50 per hour.
- An employee performing the work of a machinist shall receive an additional \$2.00 per hour. For the purposes of this premium to apply, a "machinist" is a person who uses a lathe, Bridgeport, milling machine or similar type of tool to make or modify parts.
- When performing work underground at 500 feet and below, the employee shall receive an additional \$1.00 per hour.

SUPPLEMENTAL BENEFITS

Per hour paid:

Journeyworker \$ 27.95*

*NOTE: Subject to OT premium

OVERTIME PAY

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

HOLIDAY

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

NOTE: Any holiday that falls on Sunday shall be observed the following Monday. Any holiday that falls on Saturday shall be observed the preceding Friday.

REGISTERED APPRENTICES

WAGES per hour: One year terms at the following percentage of Journeyworker's wage:

Appr. 1st year	65 %*
Appr. 2nd year	75 %*
Appr. 3rd year	80 %*
Appr. 4th year	90 %*

*NOTE: Additional premium for the following work listed below:

Certified Welder	\$ 1.75
Hazardous Waste Work	1.50
Machinist	2.00
Underground (500' and below)	1.00

SUPPLEMENTAL BENEFITS per hour:

Appr. 1st year	\$ 11.89
Appr. 2nd year	23.14
Appr. 3rd year	24.74
Appr. 4th year	26.35

6-1163Power

Millwright **11/01/2024**

JOB DESCRIPTION Millwright

DISTRICT 2

ENTIRE COUNTIES

Clinton, Essex, Franklin, Hamilton, Jefferson, Lewis, Oneida, Onondaga, Oswego, St. Lawrence, Warren, Washington

WAGES

Per hour:	07/01/2024	07/01/2025 Additional
Building	\$ 36.32	\$ 3.00*
Heavy & Highway	39.82	3.00*

*To be allocated at a later date

NOTE ADDITIONAL PREMIUMS PAID FOR THE FOLLOWING WORK LISTED BELOW (amount subject to any overtime premiums):

- Certified Welders shall receive \$1.75 per hour in addition to the current Millwrights rate provided he/she is directed to perform certified welding.
- For Building work if a work site has been declared a hazardous site by the Owner and the use of protective gear (including, as a minimum, air purifying canister-type chemical respirators) are required, then that employee shall receive a \$1.50 premium per hour for Building work.
- For Heavy & Highway work if the work is performed at a State or Federally designated hazardous waste site where employees are required to wear protective gear, the employees performing the work shall receive an additional \$2.00 per hour over the millwright heavy and highway wage rate for all hours worked on the day protective gear was worn.
- An employee performing the work of a machinist shall receive \$2.00 per hour in addition to the current Millwrights rate. For the purposes of this premium to apply, a "machinist" is a person who uses a lathe, Bridgeport, milling machine or similar type of tool to make or modify parts.
- When performing work underground at 500 feet and below, the employee shall receive an additional \$1.00.

SUPPLEMENTAL BENEFITS

Per hour:

Journeyworker	\$ 26.59
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OVERTIME PAY

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

HOLIDAY

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

Note: Any holiday that falls on Sunday shall be observed the following Monday. Any holiday that falls on Saturday shall be observed the preceding Friday.

REGISTERED APPRENTICES

Wages per hour:

(1)year terms at the following percentage of Journeyworker's rate.

1st	2nd	3rd	4th
65%	75%	80%	90%

Supplemental Benefits per hour:

Apprentices:

1st term	\$ 11.89
2nd term	22.19
3rd term	23.65
4th term	25.13

2-1163.2

Operating Engineer - Building

11/01/2024

JOB DESCRIPTION Operating Engineer - Building

DISTRICT 6

ENTIRE COUNTIES

Cayuga, Cortland, Jefferson, Lewis, Madison, Oneida, Onondaga, Oswego, Seneca, St. Lawrence, Tompkins

WAGES

NOTE:

—If a prime contract is let for site work only, meaning no buildings are involved in their site contract, the Heavy/Highway rates would be applicable. When a prime contract is let for site work and building excavation is part of that contract, the Building rates would be applicable for the Operators classification.

—In the event that equipment listed below is operated by robotic control, the classification covering the operation will be the same as if manually operated.

—If a second employee is required by the employer for operation of any covered machine, they shall be an Engineer Class C.

CLASS A1*: All Cranes (A1 Includes Boom Trucks over 5 tons, Cableway, Cherry Picker, Derrick, Dragline, Dredge, Overhead Crane, Pile Driver, Tower Crane**, Truck Crane, Whirlies).

CLASS A: Air Plako, Asphalt & Blacktop Roller, Automated Concrete Spreader (CMI or equivalent), Automated Fine Grade Machine (CMI), Backhoe, Barrel Shredder, Belt Placer, Blacktop Spreader (such as Barber-Greene & Blaw Knox), Blacktop Plant (automated), Blast or Rotary Drill (Truck or Cat mounted), Boom Trucks 5 ton and under, Burning Plant Operator, Caisson Auger, Central Mix Plant (automated), Concrete Pump, Crusher (Rock), De-watering Press, Diesel Power Unit, Dirt Filter Press with Operation Equipment, Dredge, Dual Drum Paver, Elevating Grader (self-propelled or towed), Elevator Hoist - Two Cage, Excavator - all purpose hydraulically operated, Fork Lift (Loed/Lull and other rough terrain type), Front End Loader (4 c.y. and over), Gradall, Grader (Power), Head Tower (Saurman or equal), Hoist (2 or 3 Drum), Hydroblaster (Laser Pump), Light Plants - Compressors and Generators, Locomotive, Maintenance Engineer, Maintenance Welder, Mine Hoist, Mucking Machine or Mole, Quarry Master or Equivalent, Refrigeration Equipment (for soil stabilization), Scraper, Sea Mule, Shovel, Side Boom, Slip Form Paver, Straddle Buggy (Ross Carrier, Lumber Carrier), Tractor Drawn Belt Type Loader (Euclid Loader), Trenching Machine (digging capacity of over 4ft. depth), Truck or Trailer Mounted Log Chipper (self-feeder), Tug Operator (Manned, rented equipment excluded), Tunnel Shovel, Vibro or Sonic Hammer Controls (when not mounted in proximity to Rig Operator), Work Boat Operator including LCM's.

CLASS B: "A" Frame Truck, Back Dumps, Blacktop Plant (non-automatic), Boring Machine, Bulldozer, Cage-Hoist, Central Mix Plant (non-automated), Compressor, Pump, Generator or Welding machine (when used in battery of not more than five (5)), Concrete Paver (single drum over 16'), Core boring machine, Drill Rigs - tractor mounted, Elevator - as material hoist, Farm Tractor (with or without accessories), Fork Lift (over 10 ton with or without attachments), Front End Loader (under 4 c.y.), Grout Pump, Gunit Machine, High Pressure Boiler (15 lbs. & over), Hoist (one drum), Hydraulic Breaking Hammer (Drop Hammer), Kolman Plant Loader (screening gravel), Maintenance Grease Man, Mixer for stabilized base - self-propelled (Seaman Mixer), Monorail Machine, Parapet Concrete or Pavement Grinder, Parts Man, Post Driver (truck or tractor mounted), Post Hole Digger (truck or tractor mounted), Power Sweeper (Wayne or similar), Pump-Crete or Squeeze-Crete, Road Widener (front end of Grader or self-propelled), Roller, Self-contained hydraulic bench drill, Shell Winder (motorized), Skid steer (Bobcat type loader), Snorkel (overhead arms), Snowblower control man, Tractor (with or without accessories), Trenching Machine (digging capacity of 4 ft. or less), Tugger Hoist, Vacuum Machine (self-propelled or mounted), Vibro Tamp, Well Drill / Well Point System (Submersible pumps when used in lieu of Well Point System), Winch (Motor driven), Winch Cat, Winch Truck.

CLASS C: Compressor (up to 500 cfm), Concrete Paver or Mixer (under 16'), Concrete Pavement Spreaders & Finishers (not automated), Conveyor (over 12 ft), Electric Submersible Pump (4" and over), Fine Grade Machine (not automated), Fireman, Fork Lift ("with or without" attachments, 10 ton and under), Form Tamper, Generator (2,500 watts and over), Hydraulic Pump, Mechanical Heaters (More than two (2) Mechanical Heaters or any Mechanical Heater or Heaters whose combined output exceeds 640,000 BTU per hour (manufacturer's rating) plus one self-contained heating unit - i.e. Sundog or Air Heat type - New Holland Hay Dryer type excluded), Mulching Machine, Oiler, Power Driven Welding Machine (300 amp and over, other than all electric. One Welding Machine under 300 amp will not require an engineer unless in a battery), Power Heaterman (hay dryer), Pumps (water and trash), Revinus Widener (road widener), Single Light Plant, Steam Cleaner or Jenny.

Per hour: Building	07/01/2024	07/01/2025
Class A1*	\$ 47.62	\$ 49.61

Class A	46.12	48.11
Class B	44.00	45.99
Class C	39.78	41.77

Additional \$2.50 per hour if work requires Personal Protective Equipment for hazardous waste site activities with a level C or over rating.

(*) TONNAGE PREMIUMS:

- All cranes up to 64 ton capacity - A1 rate
- All cranes 65 ton to 110 ton capacity - A1 rate plus \$ 1.50
- All cranes 111 ton to 199 ton capacity - A1 rate plus \$ 2.00
- All cranes 200 ton to 399 ton capacity - A1 rate plus \$ 3.00
- All cranes 400 ton to 599 ton capacity - A1 rate plus \$ 4.00
- All cranes 600 ton to 799 ton capacity - A1 rate plus \$ 5.00
- All cranes 800 ton to 999 ton capacity - A1 rate plus \$ 6.00
- All cranes 1000 ton capacity and over - A1 rate plus \$ 7.00

(**) Tower Cranes - A1 rate plus \$2.50 (no tonnage premiums apply)

SUPPLEMENTAL BENEFITS

Per hour:

Journeyworker	\$ 31.02	\$ 32.12
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OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

HOLIDAY

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

NOTE: If the holiday falls on Sunday, it will be celebrated on Monday.

REGISTERED APPRENTICES

WAGES per hour: One thousand hour terms at the following percentage of Journeyworker's CLASS A wage:

1st year	60%
2nd year	65%
3rd year	70%
4th year	80%

Additional \$2.50 per hour if work requires Personal Protective Equipment for hazardous waste site activities with a level C or over rating.

SUPPLEMENTAL BENEFITS per hour:

	07/01/2024	07/01/2025
All Terms:	\$ 30.95	\$ 32.05

6-158-545b.s

Operating Engineer - Heavy&Highway **11/01/2024**

JOB DESCRIPTION Operating Engineer - Heavy&Highway

DISTRICT 6

ENTIRE COUNTIES

Cayuga, Cortland, Jefferson, Lewis, Madison, Oneida, Onondaga, Oswego, Seneca, St. Lawrence, Tompkins

WAGES

NOTE:

- In the event that equipment listed below is operated by robotic control, the classification covering the operation will be the same as if manually operated.
- If a second employee is required by the employer for operation of any covered machine, they shall be an Engineer Class C.

CLASS A1*: All Cranes that require a NYS Crane License (Boom Truck, Cherry Picker, Derrick, Dragline, Overhead Crane (Gantry or Straddle Type), Pile Driver, Tower Cranes (including self erecting)** , Truck Crane).

CLASS A: Asphalt Curb Machine (self-propelled, slipform); Asphalt Paver; Automated Concrete Spreader (CMI type); Automatic Fine Grader; Backhoe (except tractor mounted, rubber tired); Backhoe Excavator, Full Swing (CAT 212 or similar type); Back Filling Machine; Belt Placer (CMI type); Blacktop Plant (automated); Blacktop Roller; Bull Dozer being operated with active GPS; Cableway; Caisson Auger; Central Mix Concrete Plant (automated); Concrete Curb Machine (self-propelled, slipform); Concrete Pump; Cranes - listed in A1 that do not require a NYS Crane License; Directional Boring/Drilling Machine; Dredge; Dual Drum Paver; Excavator (all purpose-hydraulic, Gradall or similar); Front End Loader (4 cu. yd. & over); Head Tower (Sauerman or equal); Hoist (two or three drum); Holland Loader; Maintenance Engineer; Mine Hoist; Mucking Machine or Mole; Pavement Breaker (SP Wertgen; PB-4 and similar type); Profiler/Milling Machine (over 105 h.p.); Power Grader; Quad 9; Quarry Master (or equivalent); Rotating Telehandler; Scraper (including challenger type); Shovel; Side Boom; Slip Form Paver; Tractor Drawn Belt-Type Loader; Truck or Trailer Mounted Chipper (self-feeder); Tug Operator (manned rented equipment excluded); Tunnel Shovel.

CLASS B: Backhoe (tractor mounted, rubber tired); Bituminous Recycler Machine; Bituminous Spreader and Mixer; Blacktop Plant (non-automated); Blast or Rotary Drill (truck or tractor mounted); Boring Machine; Bridge Deck Finishing Machine; Brokk; Cage Hoist; Central Mix Plant (non-automated) and All Concrete Batching Plants; Concrete Paver (over 16'); Crawler Drill (self-contained); Crusher; Diesel Power Unit; Drill Rigs (truck or tractor mounted); Front End Loader (under 4 cu. yd.); Greaseman - Lubrication Engineer; HiPressure Boiler (15 lbs & over); Hoist (one drum); Hydro-Axe; Kolman Plant Loader & similar type loaders; Locomotive; Material Handling Knuckle Boom; Mini Excavators (under 18,000 lbs.); Mixer (for stabilized base, self-propelled); Monorail Machine; Profiler/Milling Machine (105 h.p. and under); Plant Engineer; Prentice Loader; Pug Mill; Pump Crete; Ready Mix Concrete Plant; Refrigeration Equipment (for soil stabilization); Road Widener; Roller (all above subgrade, See Class A for Blacktop Roller); Sea Mule; Self-contained ride-on Rock Drill (excluding Air-Track type drill); Skidder; Tractor with Dozer and/or Pusher; Trencher; Tugger Hoist; Vacuum Machine (mounted or towed); Vermeer Saws (ride-on, any size or type); Welder; Winch and Winch Cat; Work Boat Operator including L.C.M.'s.

CLASS C: "A" Frame Winch Hoist (On Truck); Aggregate Plant; Articulated Heavy Hauler; Asphalt or Concrete Grooving Machine (ride-on); Ballast Regulator (ride-on); Bituminous Heater (self-propelled); Boat (powered); Boiler (used in conjunction with production); Cement & Bin Operator; Compressors***; Concrete Pavement Spreader and Finisher; Concrete Paver or Mixer (16' & under); Concrete Saw (self-propelled); Conveyor; Deck Hand; Directional Boring/Drilling Machine Locator; Drill (Core); Drill (Well); Dust Collectors***; Electric Pump When Used in Conjunction with Well Point System; Farm Tractor with accessories; Fine Grade Machine; Fireman; Fork Lift; Form Tamper; Generators***; Grout Pump; Gunite Machine; Hammers (hydraulic self-propelled); Heaters***; Hydra-Spiker (ride-on); Hydraulic Pump (jacking system); Hydro-Blaster (water); Light Plants***; Mulching Machine; Oiler; Parapet Concrete or Pavement Grinder; Post Hole Digger (excluding hand-held); Post Driver; Power Broom (towed); Power Heaterman; Power Sweeper; Pumps***; Revinius Widener; Roller (subgrade & fill); Scarifier (ride-on); Shell Winder; Skid Steer Loader (Bobcat or similar, including all attachments); Span Saw (ride-on); Steam Cleaner; Tamper (ride-on); Tie Extractor (ride-on); Tie Handlers (ride-on); Tie Inserters (ride-on); Tie Spacers (ride-on); Tire Repair; Track Liner (ride-on); Tractor; Tractor (with towed accessories); Vacuum Machine (self-propelled); Vibratory Compactor; Vibro Tamp; Welding Machines***; Well Point.

***CLASS C NOTE: Considered Hands-Off (unmanned). Includes only operation and maintenance of the equipment.

Per hour: H/H	07/01/2024	07/01/2025
CLASS A1*	\$ 56.51	\$ 58.85
CLASS A	53.51	55.85
CLASS B	52.63	54.97
CLASS C	49.35	51.69

(*) TONNAGE PREMIUMS:

- All cranes up to 64 ton capacity - A1 rate
- All cranes 65 ton to 110 ton capacity - A1 rate plus \$ 1.50
- All cranes 111 ton to 199 ton capacity- A1 rate plus \$ 2.00
- All cranes 200 ton to 399 ton capacity - A1 rate plus \$ 3.00
- All cranes 400 ton to 599 ton capacity - A1 rate plus \$ 4.00
- All cranes 600 ton to 799 ton capacity - A1 rate plus \$ 5.00
- All cranes 800 ton to 999 ton capacity - A1 rate plus \$ 6.00
- All cranes 1000 ton capacity and over - A1 rate plus \$ 7.00

(**) Tower Cranes - A1 rate plus \$3.00 (no tonnage premiums apply)

- Cranes in Luffer Configuration - A1 rate plus \$ 5.00
- Cranes with external ballast (Tray or Wagon) - A1 rate plus \$ 5.00

Additional \$2.50 per hour for hazardous waste removal work on a State and/or Federally designated waste site which requires employees to wear Level C or above forms of personal protection.

SHIFT WORK

SINGLE IRREGULAR WORK SHIFT: Additional \$2.50 per hour for all employees who work a single irregular work shift starting from 5:00 PM to 1:00 AM that is mandated by the Contracting Agency.

SUPPLEMENTAL BENEFITS

Per hour:	07/01/2024	07/01/2025

Journeyworker \$ 32.45 \$ 33.55

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

HOLIDAY

Paid: See (5, 6) on HOLIDAY PAGE

Overtime: See (5, 6) on HOLIDAY PAGE

NOTE: If a holiday falls on Sunday, it will be celebrated on Monday. If an employee works on this Monday, they shall be compensated at double time plus the holiday pay (triple time). If a holiday falls on a Saturday, employees who work a Saturday Holiday shall be paid double time plus the holiday pay.

REGISTERED APPRENTICES

WAGES per hour: One thousand hour terms at the following percentage of Journeyworker's CLASS B wage.

1st term	60%
2nd term	70%
3rd term	80%
4th Term	90%

Additional \$2.50 per hour for hazardous waste removal work on a State and/or Federally designated waste site which requires employees to wear Level C or above forms of personal protection.

SUPPLEMENTAL BENEFITS per hour: Same as Journeyworker

6-158-545h

Operating Engineer - Marine Dredging

11/01/2024

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: 07/01/2024

CLASS A1 \$ 45.26

Deck Captain, Leverman,
 Mechanical Dredge Operator,
 Licensed Tug Operator 1000HP or more.

CLASS A2 40.33

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 39.14

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 36.84

Certified Welder

CLASS C1 35.83

Drag Barge Operator,
 Steward, Mate,
 Assistant Fill Placer

CLASS C2 34.68

Boat Operator

CLASS D 28.81
Shoreman, Deckhand, Oiler,
Rodman, Scowman, Cook,
Messman, Porter/Janitor

SUPPLEMENTAL BENEFITS

Per Hour:
THE FOLLOWING SUPPLEMENTAL BENEFITS APPLY TO ALL CATEGORIES

All Classes A & B \$ 12.00 plus 7%
of straight time
wage, Overtime hours
add \$ 0.63

All Class C & D \$ 11.75 plus 7%
of straight time
wage, Overtime hours
add \$ 0.50

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

11/01/2024

JOB DESCRIPTION Operating Engineer - Survey Crew

DISTRICT 12

ENTIRE COUNTIES

Albany, Allegany, Broome, Cayuga, Chemung, Chenango, Clinton, Columbia, Cortland, Essex, Franklin, Fulton, Greene, Hamilton, Herkimer, Jefferson, Lewis, Livingston, Madison, Monroe, Montgomery, Oneida, Onondaga, Ontario, Oswego, Otsego, Rensselaer, Saratoga, Schenectady, Schoharie, Schuyler, Seneca, St. Lawrence, Steuben, Tioga, Tompkins, Warren, Washington, Wayne, Yates

PARTIAL COUNTIES

Dutchess: The northern portion of the county from the northern boundary line of the City of Poughkeepsie, north.
Genesee: Only the portion of the county that lies east of a line down the center of Route 98 to include all area that lies within the City of Batavia.

WAGES

These rates apply to Building, Tunnel and Heavy Highway.

Per hour:

SURVEY CLASSIFICATIONS:

- Party Chief - One who directs a survey party.
- Instrument Person - One who operates the surveying instruments.
- Rod Person - One who holds the rods and assists the Instrument Person.

07/01/2024

Party Chief \$ 50.65
Instrument Person 46.54
Rod Person 34.55

Additional \$3.00/hr. for Tunnel Work
Additional \$2.50/hr. for Hazardous Work Site

SUPPLEMENTAL BENEFITS

Per hour worked:

Journeyman \$ 29.75

OVERTIME PAY

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

*Note: \$25.10/Hr. Only for "ALL" premium hours paid when worked.

HOLIDAY

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

REGISTERED APPRENTICES

WAGES: 1000 hour terms based on the Percentage of Rod Persons Wage:

07/01/2024

0-1000	60%
1001-2000	70%
2001-3000	80%

SUPPLEMENTAL BENEFIT per hour worked:

0-1000	\$ 21.53 / PHP \$18.45
1001-2000	24.55 / " 20.45
2001-3000	27.58/ " 22.93

NOTE: PHP is premium hours paid when worked.

12-158-545 D.H.H.

Operating Engineer - Survey Crew - Consulting Engineer

11/01/2024

JOB DESCRIPTION Operating Engineer - Survey Crew - Consulting Engineer

DISTRICT 12

ENTIRE COUNTIES

Albany, Allegany, Broome, Cayuga, Chemung, Chenango, Clinton, Columbia, Cortland, Essex, Franklin, Fulton, Greene, Hamilton, Herkimer, Jefferson, Lewis, Livingston, Madison, Monroe, Montgomery, Oneida, Onondaga, Ontario, Oswego, Otsego, Rensselaer, Saratoga, Schenectady, Schoharie, Schuylar, Seneca, St. Lawrence, Steuben, Tioga, Tompkins, Warren, Washington, Wayne, Yates

PARTIAL COUNTIES

Dutchess: The northern portion of the county from the northern boundary line of the City of Poughkeepsie, north.

Genesee: Only the portion of the county that lies east of a line down the center of Route 98 to include all area that lies within the City of Batavia.

WAGES

These rates apply to feasibility and preliminary design surveying, line and grade surveying for inspection or supervision of construction when performed under a Consulting Engineer Agreement.

Per hour:

SURVEY CLASSIFICATIONS:

Party Chief - One who directs a survey party.

Instrument Person - One who operates the surveying instruments.

Rod Person - One who holds the rods and assists the Instrument Person.

07/01/2024

Party Chief	\$ 50.65
Instrument Person	46.54
Rod Person	34.55

Additional \$3.00/hr. for Tunnel Work.

Additional \$2.50/hr. for EPA or DEC certified toxic or hazardous waste work.

SUPPLEMENTAL BENEFITS

Per hour worked:

Journeyman	\$ 29.75
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OVERTIME PAY

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

*Note: \$25.10/Hr. Only for "ALL" premium hours paid when worked.

HOLIDAY

Paid: See (1) on HOLIDAY PAGE

Overtime: See (5, 6) on HOLIDAY PAGE

REGISTERED APPRENTICES

WAGES: 1000 hour terms based on percentage of Rod Persons Wage:

07/01/2024

0-1000	60%
1001-2000	70%
2001-3000	80%

SUPPLEMENTAL BENEFIT per hour worked:

0-1000	\$ 21.53 / PHP \$18.45
1001-2000	\$ 24.55 / " 20.45

2001-3000 \$ 26.98 / " 22.93

NOTE: PHP is premium hours paid when worked.

12-158-545 DCE

Operating Engineer - Tunnel

11/01/2024

JOB DESCRIPTION Operating Engineer - Tunnel

DISTRICT 7

ENTIRE COUNTIES

Albany, Allegany, Broome, Cayuga, Chemung, Chenango, Clinton, Columbia, Cortland, Essex, Franklin, Fulton, Greene, Hamilton, Herkimer, Jefferson, Lewis, Livingston, Madison, Monroe, Montgomery, Oneida, Onondaga, Ontario, Oswego, Otsego, Rensselaer, Saratoga, Schenectady, Schoharie, Schuyler, Seneca, St. Lawrence, Steuben, Tioga, Tompkins, Warren, Washington, Wayne, Yates

PARTIAL COUNTIES

Dutchess: Northern part of Dutchess, to the northern boundary line of the City of Poughkeepie, then due east to Route 115 to Bedell Road, then east along Bedell Road to VanWagner Road, then north along VanWagner Road to Bower Road, then east along Bower Road to Rte. 44 east to Rte. 343, then along Rte. 343 east to the northern boundary of the Town of Dover Plains and east along the northern boundary of the Town of Dover Plains, to the borderline of the State of Connecticut.
 Genesee: Only that portion of the county that lies east of a line drawn down the center of Route 98 and the entirety of the City of Batavia.

WAGES

CLASS A: Automatic Concrete Spreader (CMI Type); Automatic Fine Grader; Backhoe (except tractor mounted, rubber tired); Belt Placer (CMI Type); Blacktop Plant (automated); Cableway; Caisson Auger; Central Mix Concrete Plant (automated); Concrete Curb Machine (self-propelled slipform); Concrete Pump (8" or over); Dredge; Dual Drum Paver; Excavator; Front End Loader (4 cu. yd & over); Gradall; Head Tower (Sauerman or Equal); Hoist (shaft); Hoist (two or three Drum); Log Chipper/Loader (self-feeder); Maintenance Engineer (shaft and tunnel); any Mechanical Shaft Drill; Mine Hoist; Mining Machine(Mole and similar types); Mucking Machine or Mole; Overhead Crane (Gantry or Straddle Type); Pile Driver; Power Grader; Remote Controlled Mole or Tunnel Machine; Scraper; Shovel; Side Boom; Slip Form Paver (If a second man is needed, they shall be an Oiler); Tripper/Maintenance Engineer (shaft & tunnel); Tractor Drawn Belt-Type Loader; Tug Operator (manned rented equipment excluded); Tunnel Shovel.

CLASS B: Automated Central Mix Concrete Plant; Backhoe (topside); Backhoe (track mounted, rubber tired); Backhoe (topside); Bituminous Spreader and Mixer, Blacktop Plant (non-automated); Blast or Rotary Drill (truck or tractor mounted); Boring Machine; Cage Hoist; Central Mix Plant(non-automated); all Concrete Batching Plants; Compressors (4 or less exceeding 2,000 c.f.m. combined capacity); Concrete Pump; Crusher; Diesel Power Unit; Drill Rigs (tractor mounted); Front End Loader (under 4 cu. yd.); Grayco Epoxy Machine; Hoist (One Drum); Hoist (2 or 3 drum topside); Knuckle Boom material handler; Kolman Plant Loader & similar type Loaders (if employer requires another person to clean the screen or to maintain the equipment, they shall be an Oiler); L.C.M. Work Boat Operator; Locomotive; Maintenance Engineer (topside); Maintenance Grease Man; Mixer (for stabilized base-self-propelled); Monorail Machine; Plant Engineer; Personnel Hoist; Pump Crete; Ready Mix Concrete Plant; Refrigeration Equipment (for soil stabilization); Road Widener; Roller (all above sub-grade); Sea Mule; Shotcrete Machine; Shovel (topside); Tractor with Dozer and/or Pusher; Trencher; Tugger Hoist; Tunnel Locomotive; Vacuum Machine (mounted or towed); Welder; Winch; Winch Cat.

CLASS C: A Frame Truck; All Terrain Telescoping Material Handler; Ballast Regulator (ride-on); Compressors (4 not to exceed 2,000 c.f.m. combined capacity; or 3 or less with more than 1200 c.f.m. but not to exceed 2,000 c.f.m.); Compressors ((any size, but subject to other provisions for compressors), Dust Collectors, Generators, Pumps, Welding Machines, Light Plants (4 or any type combination)); Concrete Pavement Spreaders and Finishers; Conveyor; Drill (core); Drill (well); Electric Pump used in conjunction with Well Point System; Farm Tractor with Accessories; Fine Grade Machine; Fork Lift; Grout Pump (over 5 cu. ft.); Gunite Machine; Hammers (hydraulic-self-propelled); Hydra-Spiker (ride-on); Hydra-Blaster (water); Hydro-Blaster; Motorized Form Carrier; Post Hole Digger and Post Driver; Power Sweeper; Roller grade & fill); Scarifer (ride-on); Span-Saw (ride-on); Submersible Electric Pump (when used in lieu of well points); Tamper (ride-on); Tie-Extractor (ride-on), Tie Handler (ride-on), Tie Inserter (ride-on), Tie Spacer (ride-on); Track Liner (ride-on); Tractor with towed accessories; Vibratory Compactor; Vibro Tamp, Well Point.

CLASS D: Aggregate Plant; Cement & Bin Operator; Compressors (3 or less not to exceed 1,200 c.f.m. combined capacity); Compressors ((any size, but subject to other provisions for compressors), Dust Collectors, Generators, Pumps, Welding Machines, Light Plants (3 or less or any type or combination)); Concrete Saw (self-propelled); Form Tamper; Greaseman; Hydraulic Pump (jacking system); Junior Engineer; Light Plants; Mulching Machine; Oiler; Parapet Concrete or Pavement Grinder; Power Broom (towed); Power Heaterman (when used for production); Revinius Widener; Shell Winder; Steam Cleaner; Tractor.

Per hour:	07/01/2024	07/01/2025
CLASS A	\$ 55.91	\$ 58.44
CLASS B	54.69	57.22
CLASS C	51.90	54.43
CLASS D	48.89	51.42

Additional \$5.00 per hour for Hazardous Waste Work on a state or federally designated hazardous waste site where the Operating Engineer is in direct contact with hazardous material and when personal protective equipment is required for respiratory, skin and eye protection.

CRANES:

Crane 1: All cranes, including self-erecting.

Crane 2: All Lattice Boom Cranes and all cranes with a manufacturer's rating of fifty (50) ton and over.

Crane 3: All hydraulic cranes and derricks with a manufacturer's rating of forty nine (49) ton and below, including boom trucks.

Crane 1	\$ 59.91	\$ 62.44
Crane 2	58.91	61.44
Crane 3	57.91	60.44

SUPPLEMENTAL BENEFITS

Per hour:

\$ 25.05	\$ 25.90
+ 9.85*	+ 10.10*

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

OVERTIME PAY

See (B, B2, E, Q, X) on OVERTIME PAGE

HOLIDAY

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

NOTE: If a holiday falls on Sunday, it shall be observed on Monday.

REGISTERED APPRENTICES

WAGES:(1000) hours terms at the following percentage of Journeyworker's Class B wage.

1st term	60%
2nd term	65%
3rd term	70%
4th term	75%

SUPPLEMENTAL BENEFITS per hour: Same as Journeyworker

7-158-832TL.

Painter

11/01/2024

JOB DESCRIPTION Painter

DISTRICT 6

ENTIRE COUNTIES

Jefferson, St. Lawrence

PARTIAL COUNTIES

Lewis: Only the townships of Diana, Croghan, New Bremen, Watson, Greig, Martinsburg, Lowville, Denmark, Harrisburg, Montague, and Pinckney.

WAGES

Per hour: 07/01/2024

Painter/Decorator** \$ 28.35

Taper/Drywall Finisher \$ 29.10

Paper Hanging/Wallcoverings

NOTE - SEE BRIDGE PAINTER RATES FOR BRIDGES, TANKS, OR TUNNELS.

**Steel, hazardous work, working with picks, bosun chair, window jacks, swing stage, safety belts, spray painting, parking lot and highway striping, steam cleaning, sandblasting, safe-way staging over fifteen (15) feet in height, any chemicals or epoxy applications, hydro water blasting, steeplejack work, two (2) component block filler, encapsulation or abatement of lead or asbestos, and metalizing.

SHIFT WORK

FOR ANY SHIFT WHICH STARTS PRIOR TO 6:00 AM OR AFTER 3:00 PM, ALL EMPLOYEES WHO WORK A SINGLE IRREGULAR WORK SHIFT ON GOVERNMENTAL MANDATED WORK SHALL BE PAID AN ADDITIONAL \$2.00 PER HOUR ABOVE THE APPLICABLE WAGE SCALE.

SUPPLEMENTAL BENEFITS

Per hour:
 Journeyworker \$ 25.50

OVERTIME PAY

See (B, *F, R) on OVERTIME PAGE

* NOTE - On exterior work only, if work was missed during the week due to inclement weather, Saturday may be worked at straight time.

HOLIDAY

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

NOTE: A holiday that falls on a Saturday will be celebrated on the preceding Friday. A holiday that falls on a Sunday will be celebrated on the following Monday.

REGISTERED APPRENTICES

WAGES per hour:

Painter/Decorator/Wallcovering: 750 hour terms at the following wage rate:

1st	2nd	3rd	4th	5th	6th	7th	8th
\$ 18.00	\$ 18.50	\$ 19.00	\$ 19.50	\$ 20.00	\$ 21.00	\$ 22.00	\$ 23.00

Drywall Taper/ Finisher: 750 hour terms at the following wage rate:

1st	2nd	3rd	4th	5th	6th
\$ 20.00	\$ 20.50	\$ 21.00	\$ 21.50	\$ 22.00	\$ 23.00

SUPPLEMENTAL BENEFITS per hour:

Painter/Decorator/Wallcovering:

1st	2nd	3rd	4th	5th	6th	7th	8th
\$ 6.50	\$ 6.50	\$ 7.50	\$ 7.50	\$ 10.50	\$ 10.50	\$ 13.00	\$ 13.00

Drywall Taper/ Finisher:

1st	2nd	3rd	4th	5th	6th
\$ 7.50	\$ 7.50	\$ 7.50	\$ 10.00	\$ 10.00	\$ 12.00

6-38.W

Painter

11/01/2024

JOB DESCRIPTION Painter

DISTRICT 3

ENTIRE COUNTIES

Allegany, Broome, Cattaraugus, Cayuga, Chautauqua, Chemung, Chenango, Cortland, Delaware, Erie, Genesee, Herkimer, Jefferson, Lewis, Livingston, Madison, Monroe, Niagara, Oneida, Onondaga, Ontario, Orleans, Oswego, Otsego, Schuyler, Seneca, St. Lawrence, Steuben, Tioga, Tompkins, Wayne, Wyoming, Yates

WAGES

Per hour: 07/01/2024

Bridge	\$ 43.81
Tunnel	43.81
Tank*	41.81

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.

Tank rate applies to indoor and outdoor tanks, tank towers, standpipes, digesters, waste water treatment tanks, chlorinator tanks, etc. Covers all types of tanks including but not limited to steel tanks, concrete tanks, fiberglass tanks, etc.

SHIFT WORK

Note an additional \$1.50 per hour is required when the contracting agency or project specification requires any shift to start prior to 6:00am or after 12:00 noon.

SUPPLEMENTAL BENEFITS

Per hour: \$ 31.39

OVERTIME PAY

Exterior work only See (B, E4, F*, R) on OVERTIME PAGE.

All other work See (B, F*, R) on OVERTIME PAGE.

*Note - Saturday is payable at straight time if the employee misses work, except where a doctor's or hospital verification of illness is produced Monday through Friday when work was available to the employee.

HOLIDAY

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

REGISTERED APPRENTICES

Wages per hour:

750 hour terms at the following wage:

1st	2nd	3rd	4th	5th	6th
\$ 24.00	\$ 26.00	\$ 28.00	\$ 30.00	\$ 34.00	\$ 38.00

Supplemental benefits per hour:

1st	2nd	3rd	4th	5th	6th
\$ 6.60	\$ 6.95	\$ 7.30	\$ 7.65	\$ 8.00	\$ 8.35

3-4-Bridge, Tunnel, Tank

Painter - Metal Polisher

11/01/2024

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, Schuylers, Seneca, St. Lawrence, Steuben, Suffolk, Sullivan, Tioga, Tompkins, Ulster, Warren, Washington, Wayne, Westchester, Wyoming, Yates

WAGES

	07/01/2024
Metal Polisher	\$ 39.33
Metal Polisher*	40.43
Metal Polisher**	43.33

*Note: Applies on New Construction & complete renovation

** Note: Applies when working on scaffolds over 34 feet.

SUPPLEMENTAL BENEFITS

Per Hour: 07/01/2024

Journeyworker:

All classification \$ 12.79

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, 11, 15, 16, 25, 26) on HOLIDAY PAGE

REGISTERED APPRENTICES

Wages per hour:

One (1) year term at the following wage rates:

	07/01/2024
1st year	\$ 19.67
2nd year	21.63
3rd year	23.60
1st year*	\$ 22.06
2nd year*	22.07
3rd year*	24.14
1st year**	\$ 22.17
2nd year**	24.13
3rd year**	26.10

*Note: Applies on New Construction & complete renovation

** Note: Applies when working on scaffolds over 34 feet.

Supplemental benefits:

Per hour:

1st year	\$ 8.69
2nd year	8.69
3rd year	8.69

8-8A/28A-MP

Plumber

11/01/2024

JOB DESCRIPTION Plumber

DISTRICT 6

ENTIRE COUNTIES

Jefferson, St. Lawrence

PARTIAL COUNTIES

Franklin: Only the Village of Hogansburg and the St. Regis Indian Reservation.

Lewis: Entire County with the exception of the Townships of Lyonsdale, West Turin, Leyden and Lewis.

WAGES

Per hour:	07/01/2024	05/01/2025	05/01/2026
		Additional	Additional
Plumber, Steamfitter,	\$ 39.92	\$ 4.50*	\$ 4.75*

Pipefitter, Welder,
 HVAC, Refrigeration.

*To be allocated at a later date.

SHIFT WORK

SINGLE IRREGULAR WORK SHIFT: Additional 15% premium added to the wage above for a single irregular work shift outside of normal working hours.

SUPPLEMENTAL BENEFITS

Per hour:

Journeyworker \$ 28.74*

*NOTE: \$ 15.21 of the supplemental benefits are paid at the same premium as shown for the overtime work performed at the energy producing facilities whose primary function is the sale of power or the production of fuel. This also includes semi-conductor manufacturer and/or fabrication plants.

OVERTIME PAY

Time and one half for the 9th & 10th hours Monday thru Friday and first 10 hours on Saturday. All other overtime hours are double-time.

HOLIDAY

Paid: See (1) on HOLIDAY PAGE

Overtime: See (5, 6) on HOLIDAY PAGE

NOTE: When a holiday falls on a Saturday, the holiday will be observed on the preceding Friday. If a holiday falls on a Sunday, the holiday will be observed on the following Monday.

REGISTERED APPRENTICES

WAGES per hour: (1) year terms at the following percentage of Journeyworker's wage.

1st year	2nd year	3rd year	4th year	5th year
55%	60%	70%	75%	85%

SUPPLEMENTAL BENEFITS per hour*:

1st year	\$ 19.69
2nd year	24.20
3rd year	26.91
4th/5th years	28.71

*NOTE: Below is the portion of supplemental benefits paid at overtime premium for work performed at energy producing facilities whose primary function is the sale of power or the production of fuel. This also includes semi-conductor manufacturer and/or fabrication plants.

1st year	\$ 7.61
2nd year	11.41
3rd year	13.69
4th/5th year	15.21

6-81Wtr

Roofer

11/01/2024

JOB DESCRIPTION Roofer

DISTRICT 6

ENTIRE COUNTIES

Cayuga, Cortland, Franklin, Herkimer, Jefferson, Lewis, Madison, Oneida, Onondaga, Oswego, Seneca, St. Lawrence

WAGES

Per hour: 07/01/2024

Roofer, Waterproofer \$ 34.25

NOTE - Does not include metal roof flashings, gravel stop, or metal roofing; See Sheetmetal Worker wage schedule.

Additional per hour:

Green Roofing**	\$ 0.25
Pitch Removal & Appl.	1.50
Asbestos Abatement	1.50

** Green Roofing is any component of green technology or living roof above the roof membrane including, but not limited to, the fabric, dirt and plantings.

SHIFT WORK

WHEN MANDATED BY THE OWNER OR CONTRACTING AGENCY, THERE IS AN ADDITIONAL PREMIUM OF \$4.00/HR FOR HOURS WORKED BEFORE 5:30AM AND AFTER 5:30PM.

SUPPLEMENTAL BENEFITS

Per hour:
Journeyworker \$ 25.85

Additional contribution 0.75
on any Asbestos Abatement work

OVERTIME PAY

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

*NOTE - If a holiday falls in that week and 32 hours were worked, Saturday will be paid at 1 1/2 times the rate.

HOLIDAY

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

NOTE: When any of these holidays falls on Sunday, the following day shall be observed as a holiday.

REGISTERED APPRENTICES

WAGES per hour: 1000 hour terms at the following percentage of the Journeyworker's wage:

1st term (0 to 999) 65%
2nd term (1000 to 1999) 70%
3rd term (2000 to 2999) 75%
4th term (3000 to 3999) 85%

Additional per hour:
Green Roofing** \$ 0.25
Pitch Removal & Appl. 1.50
Asbestos Abatement 1.50

SUPPLEMENTAL BENEFITS per hour:

1st term \$ 19.48
2nd term 21.40
3rd term 24.85
4th term 25.85

Additional contribution \$ 0.75
on any Asbestos Abatement work

6-195

Sheetmetal Worker

11/01/2024

JOB DESCRIPTION Sheetmetal Worker

DISTRICT 6

ENTIRE COUNTIES

Cayuga, Chenango, Cortland, Herkimer, Jefferson, Lewis, Madison, Oneida, Onondaga, Oswego, St. Lawrence

WAGES

Per hour: 07/01/2024

Sheetmetal Worker:
**(under \$10 million) \$ 35.25
**(over \$10 million) \$ 36.25

**For total cost of Sheetmetal contract only.

TO INCLUDE METAL ROOF FLASHINGS, GRAVEL STOP, AND METAL STANDING SEAM ROOFING.

SUPPLEMENTAL BENEFITS

Per hour:
Journeyworker \$ 22.85

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

HOLIDAY

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

When any holiday falls on a Saturday, the Friday before such holiday shall be recognized as the legal holiday. Any holiday falling on Sunday, the following Monday shall be recognized as the legal holiday.

REGISTERED APPRENTICES

WAGES per hour: One year terms at the following percentage of Journeyworker's wage.

1st	2nd	3rd	4th	5th
45%	55%	65%	75%	85%

SUPPLEMENTAL BENEFITS per hour:

1st	2nd	3rd	4th	5th
\$13.53	\$14.60	\$15.66	\$17.77	\$18.84

6-58

Sprinkler Fitter **11/01/2024**

JOB DESCRIPTION Sprinkler Fitter

DISTRICT 1

ENTIRE COUNTIES

Allegany, Broome, Cattaraugus, Cayuga, Chautauqua, Chemung, Chenango, Clinton, Columbia, Cortland, Delaware, Erie, Essex, Franklin, Fulton, Genesee, Greene, Hamilton, Herkimer, Jefferson, Lewis, Livingston, Madison, Monroe, Montgomery, Niagara, Oneida, Onondaga, Ontario, Orleans, Oswego, Otsego, Schoharie, Schuyler, Seneca, St. Lawrence, Steuben, Tioga, Tompkins, Washington, Wayne, Wyoming, Yates

WAGES

Per hour 07/01/2024

Sprinkler \$ 42.00
 Fitter

SUPPLEMENTAL BENEFITS

Per hour

Journeyworker \$ 28.82

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
\$ 20.03	\$ 22.26	\$ 24.24	\$ 26.46	\$ 28.69	\$ 30.91	\$ 33.14	\$ 35.37	\$ 37.59	\$ 39.82

Supplemental Benefits per hour

1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
\$ 9.18	\$ 9.18	\$ 20.90	\$ 20.90	\$ 21.15	\$ 21.15	\$ 21.15	\$ 21.15	\$ 21.15	\$ 21.15

1-669

Teamster - Building **11/01/2024**

JOB DESCRIPTION Teamster - Building

DISTRICT 7

ENTIRE COUNTIES

Clinton, Essex, Franklin, Jefferson, St. Lawrence

PARTIAL COUNTIES

Lewis: Only the Townships of Croghan, Denmark, Diana, New Bremen, Harrisburg, Montague, Osceola and Pinckney.

Oswego: Only the Towns of Boylston, Redfield, and Sandy Creek.

Warren: Only the Townships of Hague, Horicon, Chester and Johnsburg.

WAGES

GROUP #1: Fuel Trucks, Fork Lift* (Warehouse Area Only), Warehouse*, Yardman*, Truck Helper, Pickups, Panel Truck, Flatbody Material Trucks (straight jobs), Single axle Dump Trucks, Dumpsters, Material Checkers/Receivers*, Greasers, Tiremen, Mechanic Helpers/Parts Chasers, Bus.

GROUP #2: Tandems, Mechanics & Batch Trucks.

GROUP #3: Semi Trailers, Low Boys, Asphalt Distributor Trucks, and Agitator Mixer Truck, Dump Crete Type Vehicles and 3 axle Dump trucks.

GROUP #4: Asbestos Removal, Special earth moving Euclid type or similar off highway equip.(non self load.) Articulated and all-track dump trucks.

*NOTE - Applies when a temporary warehouse structure is built/utilized specifically for a public work project.

Per hour: 07/01/2024

GROUP #1	\$ 30.72
GROUP #2	31.72
GROUP #3	31.82
GROUP #4	30.98

SUPPLEMENTAL BENEFITS

Per hour:

Journeyworker \$ 23.34

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

HOLIDAY

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

7-687B

Teamster - Heavy&Highway **11/01/2024**

JOB DESCRIPTION Teamster - Heavy&Highway

DISTRICT 7

ENTIRE COUNTIES

Clinton, Essex, Franklin, Jefferson, St. Lawrence

PARTIAL COUNTIES

Lewis: Only the Townships of Croghan, Denmark, Diana, New Bremen, Harrisburg, Montague, Osceola and Pinckney.
Oswego: Only the Towns of Boylston, Redfield, and Sandy Creek.
Warren: Only the Townships of Hague, Horicon, Chester and Johnsburg.

WAGES

GROUP #1: Warehousemen*, Yardmen*, Truck Helpers, Pickups, Panel Trucks, Flatboy Material Trucks(straight jobs), Single Axle Dump Trucks, Dumpsters, Material Checkers/Receivers*, Greasers, Truck Tiremen, Mechanics Helpers/Parts Chasers, Fork Lift* (Warehouse Area Only), Tandems and Batch Trucks, Mechanics. Semi-Trailers, Low-Boy Trucks, Asphalt Distributor Trucks, and Agitator, Mixer Trucks and Dumpcrete type vehicles, Truck Mechanic, Fuel Truck.

GROUP #2: Specialized Earth Moving Equipment, Euclid type, or similar off-highway where not self-loading, Straddle (Ross) Carrier, and self-contained concrete mobile truck. Off-highway Tandem Back-Dump, Twin Engine Equipment and Double-Hitched Equipment where not self-loading.

*NOTE - Applies when a temporary warehouse structure is built/utilized specifically for a public work project.

Per hour: 07/01/2024

GROUP #1	\$ 32.78
GROUP #2	33.00

Additional \$1.50 per hour for hazardous waste removal work on a City, County, State and/or Federal Designated waste site and regulations require employee to use or wear respiratory protection.

SUPPLEMENTAL BENEFITS

Per hour:

Journeyworker \$ 25.72

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

HOLIDAY

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

NOTE: If a holiday falls on a Sunday, it will be celebrated on Monday.

7-687

Welder **11/01/2024**

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 07/01/2024

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

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New York State Department of Labor - Bureau of Public Work
State Office Building Campus
Building 12 - Room 130
Albany, New York 12226

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
- Fuel Delivery
- Guards, Watchmen
- Janitors, Porters, Cleaners, Elevator Operators
- Moving furniture and equipment
- Trash and refuse removal
- Window cleaners
- Other (Describe)

9. Does this project comply with the Wicks Law involving separate bidding? YES NO

10. Name and Title of Requester

Signature

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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://apps.labor.ny.gov/EDList/searchPage.do>

For inquiries please call 518-457-5589.

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NYSDOL Bureau of Public Work Debarment List 11/18/2024

Article 8

AGENCY	Fiscal Officer	FEIN	EMPLOYER NAME	EMPLOYER DBA NAME	ADDRESS	DEBARMENT START DATE	DEBARMENT END DATE
DOL	DOL	*****5754	0369 CONTRACTORS, LLC		515 WEST AVE UNIT PH 13NORWALK CT 06850	05/12/2021	05/12/2026
DOL	DOL	*****5784	A.J.M. TRUCKING, INC.		PO BOX 2064 MONROE NY 10950	02/12/2024	02/12/2029
DOL	DOL		AKHLAQ OULAKH		4307 28TH AVE ASTORIA NY 11103	10/11/2024	10/11/2029
DOL	NYC		ALL COUNTY SEWER & DRAIN, INC.		7 GREENFIELD DR WARWICK NY 10990	03/25/2022	03/25/2027
DOL	DOL	*****8387	AMERICAN PAVING & MASONRY, CORP.		8 FOREST AVE GLEN COVE NY 11542	05/24/2024	05/24/2029
DOL	DOL	*****8654	AMERICAN PAVING, INC.		8 FORREST AVE. GLEN COVE NY 11542	05/24/2024	05/24/2029
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 GARCIA		515 WEST AVE UNIT PH 13NORWALK CT 06850	05/12/2021	05/12/2026
DOL	DOL		ANGELO STANCO		8 FOREST AVE. GLEN COVE NY 11542	05/24/2024	05/24/2029
DOL	DOL		ANGELO TONDO		449 WEST MOMBASHA ROAD MONROE NY 10950	06/06/2022	06/06/2027
DOL	DOL	*****4231	ANKER'S ELECTRIC SERVICE, INC.		10 SOUTH 5TH ST LOCUST VALLEY NY 11560	09/26/2022	09/26/2027
DOL	DOL		ANTHONY MONGELLI		PO BOX 2064 MONROE NY 10950	02/12/2024	02/12/2029
DOL	NYC		ARADCO CONSTRUCTION CORP		115-46 132RD ST SOUTH OZONE PARK NY 11420	09/17/2020	09/17/2025
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	NYC		AVM CONSTRUCTION CORP		117-72 123RD ST SOUTH OZONE PARK NY 11420	09/17/2020	09/17/2025
DOL	NYC		AZIDABEGUM		524 MCDONALD AVENUE BROOKLYN NY 11218	09/17/2020	09/17/2025
DOL	DOL	*****8421	B & B DRYWALL, INC		206 WARREN AVE APT 1WHITE PLAINS NY 10603	12/14/2021	12/14/2026
DOL	DOL		B&L RENOVATION CO.		618 OCEAN PARKWAY APT A6BROOKLYN NY 11230	09/17/2020	09/17/2025
DOL	DOL		BERNARD BEGLEY		38 LONG RIDGE ROAD BEDFORD NY 10506	12/18/2019	12/18/2024
DOL	NYC	*****2113	BHW CONTRACTING, INC.		401 HANOVER AVENUE STATEN ISLAND NY 10304	01/11/2021	01/11/2026
DOL	DOL	*****3627	BJB CONSTRUCTION CORP.		38 LONG RIDGE ROAD BEDFORD NY 10506	12/18/2019	12/18/2024
DOL	DOL	*****5078	BLACK RIVER TREE REMOVAL, LLC		29807 ANDREWS ROAD BLACK RIVER NY 13032	10/17/2023	10/17/2028
DOL	DOL		BRADLEY J SCHUKA		4 BROTHERS ROAD WAPPINGERS FALLS NY 12590	10/20/2020	10/20/2025
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	*****4083	C.P.D. ENTERPRISES, INC		P.O BOX 281 WALDEN NY 12586	03/03/2020	03/03/2025
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	DOL	*****4155	CASA BUILDERS, INC.	FRIEDLANDER CONSTRUCTI ON	64 N PUTT CONNERS ROAD NEW PALTZ NY 12561	05/10/2023	05/10/2028
DOL	AG	*****7247	CENTURY CONCRETE CORP		2375 RAYNOR ST RONKONKOMA NY 11779	08/04/2021	08/04/2026
DOL	DOL	*****0026	CHANTICLEER CONSTRUCTION LLC		4 BROTHERS ROAD WAPPINGERS FALLS NY 12590	10/20/2020	10/20/2025
DOL	NYC	*****2117	CHARAN ELECTRICAL ENTERPRISES		9-11 40TH AVENUE LONG ISLAND CITY NY 11101	09/26/2023	09/26/2028
DOL	NYC		CHARLES ZAHRADKA		863 WASHINGTON STREET FRANKLIN SQUARE NY 11010	03/10/2020	03/10/2025

NYSDOL Bureau of Public Work Debarment List 11/18/2024

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DOL	DOL		CHRISTOPHER GRECO		26 NORTH MYRTLE AVENUE SPRING VALLEY NY 10956	02/18/2021	02/18/2026
DOL	DOL	*****2281	CORRAO TRUCKING, INC.		PO BOX 393 NANUET NY 10954	09/17/2024	09/17/2029
DOL	DOL		CRAIG JOHANSEN		10 SOUTH 5TH ST LOCUST VALLEY NY 11560	09/26/2022	09/26/2027
DOL	DOL	*****3228	CROSS-COUNTY LANDSCAPING AND TREE SERVICE, INC.	ROCKLAND TREE SERVICE	26 NORTH MYRTLE AVENUE SPRING VALLEY NY 10956	02/18/2021	02/18/2026
DOL	DOL	*****7619	DANCO CONSTRUCTION UNLIMITED INC.		485 RAFT AVENUE HOLBROOK NY 11741	10/19/2021	10/19/2026
DOL	DOL		DANIEL ROBERT MCNALLY		7 GREENFIELD DRIVE WARWICK NY 10990	03/25/2022	03/25/2027
DOL	DOL		DARIAN L COKER		2610 SOUTH SALINA ST SUITE 2CSYRACUSE NY 13205	09/17/2020	09/17/2025
DOL	DOL		DARWIN PEGUESE		6400 BALTIMORE NATIONAL SUITE 602CANTONSVILLE NY 21228	10/24/2024	10/24/2029
DOL	DOL		DAVID FRIEDLANDER		64 NORTH PUTT CORNERS RD NEW PALTZ NY 12561	05/10/2023	05/10/2028
DOL	DOL		DINA TAYLOR		64 N PUTT CONNERS RD NEW PALTZ NY 12561	05/10/2023	05/10/2028
DOL	DOL	*****5175	EAGLE MECHANICAL AND GENERAL CONSTRUCTION LLC		11371 RIDGE RD WOLCOTT NY 14590	02/03/2020	02/03/2025
DOL	AG		EDWIN HUTZLER		23 NORTH HOWELLS RD BELLPORT NY 11713	08/04/2021	08/04/2026
DOL	DA		EDWIN HUTZLER		2375 RAYNOR STREET RONKONKOMA NY 11779	08/04/2021	08/04/2026
DOL	DOL	*****0780	EMES HEATING & PLUMBING CONTR		5 EMES LANE MONSEY NY 10952	01/20/2002	01/20/3002
DOL	DOL		EMIL KISZKO		84 DIAMOND ST BROOKLYN NY 11222	07/18/2024	07/18/2029
DOL	DOL	*****3298	EMJACK CONSTRUCTION CORP.		84 DIAMOND ST BROOKLYN NY 11222	07/18/2024	07/18/2029
DOL	DOL	*****3298	EMJACK CONSTRUCTION LLC		4192 SIR ANDREW CIRCLE DOYLESTOWN PA 18902	07/18/2024	07/18/2029
DOL	DOL		EUGENIUSZ "GINO" KUCHAR		195 KINGSLAND AVE BROOKLYN NY 11222	12/22/2023	12/22/2028
DOL	DA		FREDERICK HUTZLER		2375 RAYNOR STREET RONKONKOMA NY 11779	08/04/2021	08/04/2026
DOL	NYC	*****6616	G & G MECHANICAL ENTERPRISES, LLC.		1936 HEMPSTEAD TURNPIKE EAST MEDOW NY 11554	11/29/2019	11/29/2024
DOL	DOL	*****2998	G.E.M. AMERICAN CONSTRUCTION CORP.		195 KINGSLAND AVE BROOKLYN NY 11222	12/22/2023	12/22/2028
DOL	NYC		GAYATRI MANGRU		21 DAREWOOD LANE VALLEY STREAM NY 11581	09/17/2020	09/17/2025
DOL	DA		GEORGE LUCEY		150 KINGS STREET BROOKLYN NY 11231	01/19/1998	01/19/2998
DOL	DA		GIOVANNA TRAVAJA		3735 9TH ST LONG ISLAND CITY NY 11101	01/05/2023	01/05/2028
DOL	DA		GIOVANNI NAPOLITANO		2501 BAYVIEW AVENUE WANTAGH NY 11793	02/21/2024	02/21/2029
DOL	DA	*****0213	GORILLA CONTRACTING GROUP, LLC		505 MANHATTAN AVE WEST BABYLON NY 11704	10/05/2023	10/05/2028
DOL	DA	*****4760	GTX CONSTRUCTION ASSOCIATES, CORP		2501 BAYVIEW AVE WANTAGH NY 11793	02/21/2024	02/21/2029
DOL	DOL		HANS RATH		24 ELDOR AVENUE NEW CITY NY 10956	02/03/2020	02/03/2025
DOL	DOL		HERBERT CLEMEN		42 FOWLER AVENUE CORTLAND MANOR NY 10567	01/24/2023	01/24/2028
DOL	DOL		HERBERT CLEMEN		42 FOWLER AVENUE CORTLAND MANOR NY 10567	10/25/2022	10/25/2027
DOL	DOL	*****2397	ISLAND BREEZE MARINE, INC.		6400 BALTIMORE NATIONAL CANTONSVILLE MD 21228	10/24/2024	10/24/2029
DOL	DOL	*****9211	J. WASE CONSTRUCTION CORP.		8545 RT 9W ATHENS NY 12015	03/09/2021	03/09/2026
DOL	DOL		J.M.J CONSTRUCTION		151 OSTRANDER AVENUE SYRACUSE NY 13205	11/21/2022	11/21/2027
DOL	DOL		J.R. NELSON CONSTRUCTION		531 THIRD STREET ALBANY NY 12206	11/07/2023	11/07/2028
DOL	DOL		J.R. NELSON CONSTRUCTION		531 THIRD STREET ALBANY NY 12206	12/22/2022	12/22/2027
DOL	DOL		J.R. NELSON CONSTRUCTION		531 THIRD STREET ALBANY NY 12206	10/25/2022	10/25/2027

NYSDOL Bureau of Public Work Debarment List 11/18/2024

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DOL	DOL		J.R. NELSON, LLC		531 THIRD STREET ALBANY NY 12206	12/22/2022	12/22/2027
DOL	DOL		J.R. NELSON, LLC		531 THIRD STREET ALBANY NY 12206	11/07/2023	11/07/2028
DOL	DOL		J.R. NELSON, LLC		531 THIRD STREET ALBANY NY 12206	10/25/2022	10/25/2027
DOL	DOL		J.R.N COMPANIES, LLC		531 THIRD STREET ALBANY NY 12206	12/12/2022	12/12/2027
DOL	DOL		J.R.N COMPANIES, LLC		531 THIRD STREET ALBANY NY 12206	11/07/2023	11/07/2028
DOL	DOL		J.R.N COMPANIES, LLC		531 THIRD STREET ALBANY NY 12206	10/25/2022	10/25/2027
DOL	DOL	*****1147	J.R.N. CONSTRUCTION, LLC		531 THIRD ST ALBANY NY 12206	11/07/2023	11/07/2028
DOL	DOL	*****1147	J.R.N. CONSTRUCTION, LLC		531 THIRD ST ALBANY NY 12206	12/22/2022	12/22/2027
DOL	DOL	*****1147	J.R.N. CONSTRUCTION, LLC		531 THIRD ST ALBANY NY 12206	10/25/2022	10/25/2027
DOL	DOL		JAMES J. BAKER		7901 GEE ROAD CANASTOTA NY 13032	08/17/2021	08/17/2026
DOL	DOL		JASON P. RACE		3469 STATE RT. 69 PERISH NY 13131	09/29/2021	09/29/2026
DOL	DOL		JASON P. RACE		3469 STATE RT. 69 PERISH NY 13131	02/09/2022	02/09/2027
DOL	DOL		JASON P. RACE		3469 STATE RT. 69 PERISH NY 13131	11/15/2022	11/15/2027
DOL	DOL		JASON P. RACE		3469 STATE RT. 69 PERISH NY 13131	03/01/2022	03/01/2027
DOL	DOL	*****7993	JBS DIRT, INC.		7901 GEE ROAD CANASTOTA NY 13032	08/17/2021	08/17/2026
DOL	DOL	*****2435	JEFFEL D. JOHNSON	JMJ7 AND SON	5553 CAIRNSTRAIL CLAY NY 13041	11/21/2022	11/21/2027
DOL	DOL		JEFFEL JOHNSON ELITE CARPENTER REMODEL AND CONSTRUCTION		C2 EVERGREEN CIRCLE LIVERPOOL NY 13090	11/21/2022	11/21/2027
DOL	DOL	*****2435	JEFFREY M. JOHNSON	JMJ7 AND SON	5553 CAIRNS TRAIL CLAY NY 13041	11/21/2022	11/21/2027
DOL	NYC		JENNIFER GUERRERO		1936 HEMPSTEAD TURNPIKE EAST MEADOW NY 11554	11/29/2019	11/29/2024
DOL	DOL		JIM PLAUGHER		17613 SANTE FE LINE ROAD WAYNEFIELD OH 45896	07/16/2021	07/16/2026
DOL	DOL		JMJ7 & SON CONSTRUCTION, LLC		5553 CAIRNS TRAIL LIVERPOOL NY 13041	11/21/2022	11/21/2027
DOL	DOL		JMJ7 AND SONS CONTRACTORS		5553 CAIRNS TRAIL CLAY NY 13041	11/21/2022	11/21/2027
DOL	DOL		JMJ7 CONTRACTORS		7014 13TH AVENUE BROOKLYN NY 11228	11/21/2022	11/21/2027
DOL	DOL		JMJ7 CONTRACTORS AND SONS		5553 CAIRNS TRAIL CLAY NY 13041	11/21/2022	11/21/2027
DOL	DOL		JMJ7 CONTRACTORS, LLC		5553 CAIRNS TRAIL CLAY NY 13041	11/21/2022	11/21/2027
DOL	DOL		JOHN MARKOVIC		47 MANDON TERRACE HAWTHORN NJ 07506	03/29/2021	03/29/2026
DOL	DOL		JOHN WASE		8545 RT 9W ATHENS NY 12015	03/09/2021	03/09/2026
DOL	DOL		JORGE RAMOS		8970 MIKE GARCIA DR MANASSAS VA 20109	07/16/2021	07/16/2026
DOL	DOL		JOSEPH K. SALERNO		1010 TILDEN AVE UTICA NY 13501	07/24/2023	07/24/2028
DOL	DOL		JOSEPH K. SALERNO II		1010 TILDEN AVE UTICA NY 13501	07/24/2023	07/24/2028
DOL	DOL	*****5116	JP RACE PAINTING, INC. T/A RACE PAINTING		3469 STATE RT. 69 PERISH NY 13131	02/09/2022	02/09/2027
DOL	DOL	*****5116	JP RACE PAINTING, INC. T/A RACE PAINTING		3469 STATE RT. 69 PERISH NY 13131	11/15/2022	11/15/2027
DOL	DOL	*****5116	JP RACE PAINTING, INC. T/A RACE PAINTING		3469 STATE RT. 69 PERISH NY 13131	09/29/2021	09/29/2026
DOL	DOL	*****5116	JP RACE PAINTING, INC. T/A RACE PAINTING		3469 STATE RT. 69 PERISH NY 13131	03/01/2022	03/01/2027
DOL	DOL	*****5116	JP RACE PAINTING, INC. T/A RACE PAINTING		3469 STATE RT. 69 PERISH NY 13131	03/01/2022	03/01/2027
DOL	DOL		JRN CONSTRUCTION CO, LLC		1024 BROADWAY ALBANY NY 12204	11/07/2023	11/07/2028
DOL	DOL	*****1147	JRN CONSTRUCTION, LLC		531 THIRD STREET ALBANY NY 12206	10/25/2022	10/25/2027

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DOL	DOL	*****1147	JRN CONSTRUCTION, LLC	531 THIRD STREET ALBANY NY 12206	12/22/2022	12/22/2027
DOL	DOL	*****1147	JRN CONSTRUCTION, LLC	531 THIRD STREET ALBANY NY 12206	11/07/2023	11/07/2028
DOL	DOL		JRN PAVING, LLC	531 THIRD STREET ALBANY NY 12206	10/25/2022	10/25/2027
DOL	DOL		JRN PAVING, LLC	531 THIRD STREET ALBANY NY 12206	12/22/2022	12/22/2027
DOL	DOL		JRN PAVING, LLC	531 THIRD STREET ALBANY NY 12206	11/07/2023	11/07/2028
DOL	DOL		JULIUS AND GITA BEHREND	5 EMES LANE MONSEY NY 10952	11/20/2002	11/20/3002
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		KEAN INDUSTRIES, LLC	2345 RT. 52 SUITE 2NHOPEWELL JUNCTION NY 12533	12/18/2023	12/18/2028
DOL	DOL	*****2959	KELC DEVELOPMENT, INC	7088 INTERSTATE ISLAND RD SYRACUSE NY 13209	03/31/2021	03/31/2026
DOL	DOL		KIMBERLY F. BAKER	7901 GEE ROAD CANASTOTA NY 13032	08/17/2021	08/17/2026
DOL	DOL		KMA GROUP II, INC.	29-10 38TH AVENUE LONG ISLAND CITY NY 11101	10/11/2023	10/11/2028
DOL	DOL	*****1833	KMA GROUP INC.	29-10 38TH AVENUE LONG ISLAND CITY NY 11101	10/11/2023	10/11/2028
DOL	DOL		KMA INSULATION, INC.	29-10 38TH AVENUE LONG ISLAND CITY NY 11101	10/11/2023	10/11/2028
DOL	DOL		KRIN HEINEMANN	2345 ROUTE 52, SUITE 2N HOPEWELL JUNCTION NY 12533	12/18/2023	12/18/2028
DOL	NYC		KULWANT S. DEOL	9-11 40TH AVENUE LONG ISLAND CITY NY 11101	09/26/2023	09/26/2028
DOL	DA	*****8816	LAKE CONSTRUCTION AND DEVELOPMENT CORPORATION	150 KINGS STREET BROOKLYN NY 11231	08/19/1998	08/19/2998
DOL	DOL		LEROY E. NELSON JR	531 THIRD ST ALBANY NY 12206	10/25/2022	10/25/2027
DOL	DOL		LEROY E. NELSON JR	531 THIRD ST ALBANY NY 12206	12/22/2022	12/22/2027
DOL	DOL		LEROY E. NELSON JR	531 THIRD ST ALBANY NY 12206	11/07/2023	11/07/2028
DOL	AG	*****3291	LINTECH ELECTRIC, INC.	3006 TILDEN AVE BROOKLYN NY 11226	02/16/2022	02/16/2027
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	*****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	DOL		MAQSOOD AHMAD	618 OCEAN PKWY BROOKLYN NY 11230	09/17/2020	09/17/2025
DOL	NYC		MARIA NUBILE	84-22 GRAND AVENUE ELMHURST NY 11373	03/10/2020	03/10/2025
DOL	DOL	*****1320	MJC MASON CONTRACTING, INC.	42 FOWLER AVENUE CORTLAND MANOR NY 10567	10/25/2022	10/25/2027
DOL	DOL	*****1320	MJC MASON CONTRACTING, INC.	42 FOWLER AVENUE CORTLAND MANOR NY 10567	01/24/2023	01/24/2028
DOL	NYC		MUHAMMED A. HASHEM	524 MCDONALD AVENUE BROOKLYN NY 11218	09/17/2020	09/17/2025
DOL	NYC		NAMOW, INC.	84-22 GRAND AVENUE ELMHURST NY 11373	03/10/2020	03/10/2025
DOL	DOL	*****7790	NATIONAL BUILDING & RESTORATION CORP	1010 TILDEN AVE UTICA NY 13501	07/24/2023	07/24/2028
DOL	DOL	*****1797	NATIONAL CONSTRUCTION SERVICES, INC	1010 TILDEN AVE UTICA NY 13501	07/24/2023	07/24/2028
DOL	NYC		NAVIT SINGH	402 JERICHO TURNPIKE NEW HYDE PARK NY 11040	08/10/2022	08/10/2027

NYSDOL Bureau of Public Work Debarment List 11/18/2024

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DOL	DOL		NELCO CONTRACTING, LLC		1024 BROADWAY ALBANY NY 12204	11/07/2023	11/07/2028
DOL	DA		NICHOLAS T. ANALITIS		505 MANHATTAN AVE WEST BABYLON NY 11704	10/05/2023	10/05/2028
DOL	DOL		NICHOLE E. FRASER A/K/A NICHOLE RACE		3469 STATE RT. 69 PERISH NY 13131	03/01/2022	03/01/2027
DOL	DOL		NICHOLE E. FRASER A/K/A NICHOLE RACE		3469 STATE RT. 69 PERISH NY 13131	11/15/2022	11/15/2027
DOL	DOL		NICHOLE E. FRASER A/K/A NICHOLE RACE		3469 STATE RT. 69 PERISH NY 13131	09/29/2021	09/29/2026
DOL	DOL		NICHOLE E. FRASER A/K/A NICHOLE RACE		3469 STATE RT. 69 PERISH NY 13131	02/09/2022	02/09/2027
DOL	DOL	****7429	NICOLAE I. BARBIR	BESTUCCO CONSTRUCTI ON, INC.	444 SCHANTZ ROAD ALLENTOWN PA 18104	09/17/2020	09/17/2025
DOL	NYC	****5643	NYC LINE CONTRACTORS, INC.		402 JERICHO TURNPIKE NEW HYDE PARK NY 11040	08/10/2022	08/10/2027
DOL	DOL		PATRICK PENNACCHIO		2345 RT. 52 SUITE 2NHOPWELL JUNCTION NY 12533	12/18/2023	12/18/2028
DOL	DOL		PATRICK PENNACCHIO		2345 RT. 52 SUITE 2NHOPWELL JUNCTION NY 12533	12/18/2023	12/18/2028
DOL	DOL		PAULINE CHAHALES		935 S LAKE BLVD MAHOPAC NY 10541	03/02/2021	03/02/2026
DOL	DOL		PETER STEVENS		11 OLD TOWN ROAD SELKIRK NY 12158	02/02/2021	02/02/2026
DOL	DOL		PETER STEVENS		8269 21ST ST BELLEROSE NY 11426	12/22/2022	12/22/2027
DOL	DOL	****4168	PHANTOM CONSTRUCTION CORP.		95-27 116TH STREET QUEENS NY 11419	07/12/2024	07/12/2029
DOL	DOL	****4168	PHANTOM CONSTRUCTION CORP.		95-27 116TH STREET QUEENS NY 11419	05/28/2024	05/28/2029
DOL	DOL	****0466	PRECISION BUILT FENCES, INC.		1617 MAIN ST PEEKSKILL NY 10566	03/03/2020	03/03/2025
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	07/11/2022	07/11/2027
DOL	DA	****7559	REGAL CONTRACTING INC.		24 WOODBINE AVE NORTHPORT NY 11768	10/01/2020	10/01/2025
DOL	DOL		RICHARD REGGIO		1617 MAIN ST PEEKSKILL NY 10566	03/03/2020	03/03/2025
DOL	DOL		ROBBYE BISSESAR		89-51 SPRINGFIELD BLVD QUEENS VILLAGE NY 11427	01/11/2003	01/11/3003
DOL	DOL		ROMEO WARREN		161 ROBYN RD MONROE NY 10950	07/11/2022	07/11/2027
DOL	DOL	****7172	RZ & AL INC.		198 RIDGE AVENUE VALLEY STREAM NY 11581	06/06/2022	06/06/2027
DOL	DOL		SAL FRESINA MASONRY CONTRACTORS, INC.		1935 TEALL AVENUE SYRACUSE NY 13206	07/16/2021	07/16/2026
DOL	DOL		SAL MASONRY CONTRACTORS, INC.		(SEE COMMENTS) SYRACUSE NY 13202	07/16/2021	07/16/2026
DOL	DOL	****9874	SALFREE ENTERPRISES INC		P.O BOX 14 2821 GARDNER RD POMPEI NY 13138	07/16/2021	07/16/2026
DOL	DOL		SALVATORE A FRESINA A/K/A SAM FRESINA		107 FACTORY AVE P.O BOX 11070 SYRACUSE NY 13218	07/16/2021	07/16/2026
DOL	DOL		SAM FRESINA		107 FACTORY AVE P.O BOX 11070 SYRACUSE NY 13218	07/16/2021	07/16/2026
DOL	NYC	****0349	SAM WATERPROOFING INC		168-42 88TH AVENUE APT.1 AJAMAICA NY 11432	11/20/2019	11/20/2024
DOL	DA	****0476	SAMCO ELECTRIC CORP.		3735 9TH ST LONG ISLAND CITY NY 11101	01/05/2023	01/05/2028
DOL	NYC	****1130	SCANA CONSTRUCTION CORP.		863 WASHINGTON STREET FRANKLIN SQUARE NY 11010	03/10/2020	03/10/2025
DOL	DOL	****2045	SCOTT DUFFIE	DUFFIE'S ELECTRIC, INC.	P.O BOX 111 CORNWALL NY 12518	03/03/2020	03/03/2025
DOL	DOL		SCOTT DUFFIE		P.O BOX 111 CORNWALL NY 12518	03/03/2020	03/03/2025

NYSDOL Bureau of Public Work Debarment List 11/18/2024

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DOL	DA		SILVANO TRAVALJA		3735 9TH ST LONG ISLAND CITY NY 11101	01/05/2023	01/05/2028
DOL	DOL	*****0440	SOLAR GUYS INC.		8970 MIKE GARCIA DR MANASSAS VA 20109	07/16/2021	07/16/2026
DOL	NYC		SOMATIE RAMSUNAHAI		115-46 132ND ST SOUTH OZONE PARK NY 11420	09/17/2020	09/17/2025
DOL	DOL	*****2221	SOUTH BUFFALO ELECTRIC, INC.		1250 BROADWAY ST BUFFALO NY 14212	02/03/2020	02/03/2025
DOL	NYC	*****3661	SPANIER BUILDING MAINTENANCE CORP		200 OAK DRIVE SYOSSET NY 11791	03/14/2022	03/14/2027
DOL	DOL		STANADOS KALOGELAS		485 RAFT AVENUE HOLBROOK NY 11741	10/19/2021	10/19/2026
DOL	DOL	*****3496	STAR INTERNATIONAL INC		89-51 SPRINGFIELD BLVD QUEENS VILLAGE NY 11427	08/11/2003	08/11/3003
DOL	DOL	*****9528	STEEL-IT, LLC.		17613 SANTE FE LINE ROAD WAYNESFIELD OH 45896	07/16/2021	07/16/2026
DOL	DOL	*****3800	SUBURBAN RESTORATION CO. INC.		5-10 BANTA PLACE FAIR LAWN PLACE NJ 07410	03/29/2021	03/29/2026
DOL	DOL	*****9150	SURGE INC.		8269 21ST STREET BELLEROSE NY 11426	12/22/2022	12/22/2027
DOL	DOL		SYED MUHAMMAD S. JAFRI A/K/A SHARRUKH JAFRI		4307 28TH AVE ASTORIA NY 11103	10/11/2024	10/11/2029
DOL	DOL		SYED RAZA		198 RIDGE AVENUE NY 11581	06/06/2022	06/06/2027
DOL	DOL		TARLOK SINGH		95-27 116TH STREET QUEENS NY 11419	05/28/2024	05/28/2029
DOL	DOL		TARLOK SINGH		95-27 116TH STREET QUEENS NY 11419	07/12/2024	07/12/2029
DOL	DOL		TERRY THOMPSON		11371 RIDGE RD WOLCOTT NY 14590	02/03/2020	02/03/2025
DOL	DOL	*****9733	TERSAL CONSTRUCTION SERVICES INC		107 FACTORY AVE P.O BOX 11070SYRACUSE NY 13208	07/16/2021	07/16/2026
DOL	DOL		TERSAL CONTRACTORS, INC.		221 GARDNER RD P.O BOX 14POMPEI NY 13138	07/16/2021	07/16/2026
DOL	DOL		TERSAL DEVELOPMENT CORP.		1935 TEALL AVENUE SYRACUSE NY 13206	07/16/2021	07/16/2026
DOL	DOL	*****5766	THE COKER CORPORATION	COKER CORPORATIO N	2610 SOUTH SALINA ST SUITE 14SYRACUSE NY 13205	09/17/2020	09/17/2025
DOL	DOL	*****2426	THE MATRUKH GROUP, INC.		4307 28TH AVE PO BOX 9082ASTORIA NY 11103	10/11/2024	10/11/2029
DOL	DOL		TIMOTHY PERCY		29807 ANDREWS ROAD BLACK RIVER NY 13612	10/17/2023	10/17/2028
DOL	DA	*****1050	TRI STATE CONSTRUCTION OF NY CORP.		50-39 175TH PLACE FRESH MEADOWS NY 11365	03/28/2022	03/28/2027
DOL	DA	*****4106	TRIPLE H CONCRETE CORP		2375 RAYNOR STREET RONKONKOMA NY 11779	08/04/2021	08/04/2026
DOL	DOL	*****8210	UPSTATE CONCRETE & MASONRY CONTRACTING CO INC		449 WEST MOMBASHA ROAD MONROE NY 10950	06/06/2022	06/06/2027
DOL	DOL	*****6418	VALHALLA CONSTRUCTION, LLC.		796 PHLEPS ROAD FRANKLIN LAKES NJ 07417	12/01/2020	12/01/2025
DOL	NYC	*****2426	VICKRAM MANGRU	VICK CONSTRUCTI ON	21 DAREWOOD LANE VALLEY STREAM NY 11581	09/17/2020	09/17/2025
DOL	NYC		VICKRAM MANGRU		21 DAREWOOD LANE VALLEY STREAM NY 11581	09/17/2020	09/17/2025
DOL	DOL		VIKTORIA RATH		24 ELDOR AVENUE NEW CITY NY 10956	02/03/2020	02/03/2025
DOL	DOL		VINCENT CORRAO		PO BOX 393 NANUET NY 10954	09/17/2024	09/17/2029
DOL	DOL	*****8266	WILLIAM CHRIS MCCLENDON	MCCLENDON ASPHALT PAVING	1646 FALLS STREET NIAGARA FALLS NY 14303	05/01/2023	05/01/2028
DOL	DOL		WILLIAM CHRIS MCCLENDON		1646 FALLS STREET NIAGARA FALLS NY 14303	05/01/2023	05/01/2028
DOL	DOL		WILLIAM G. PROERFRIEDT		85 SPRUCEWOOD ROAD WEST BABYLON NY 11704	01/19/2021	01/19/2026
DOL	DOL	*****5924	WILLIAM G. PROPHY, LLC	WGP CONTRACTIN G, INC.	54 PENTAQUIT AVE BAYSHORE NY 11706	01/19/2021	01/19/2026
DOL	DOL		WILLIAM SCRIVENS		4192 SIR ANDREW CIRCLE DOYELSTOWN PA 18902	07/18/2024	07/18/2029

NYSDOL Bureau of Public Work Debarment List 11/18/2024

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DOL	DOL		XENOFON EFTHIMIADIS		29-10 38TH AVENUE LONG ISLAND CITY NY 11101	10/11/2023	10/11/2028
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"General Decision Number: NY20240009 09/27/2024

Superseded General Decision Number: NY20230009

State: New York

Construction Types: Heavy and Highway

Counties: Jefferson, Lewis and St Lawrence Counties in New York.

HEAVY AND HIGHWAY CONSTRUCTION PROJECTS:

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(1).

<p>If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022:</p>	<ul style="list-style-type: none"> . Executive Order 14026 generally applies to the contract. . The contractor must pay all covered workers at least \$17.20 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2024.
<p>If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022:</p>	<ul style="list-style-type: none"> . Executive Order 13658 generally applies to the contract. . The contractor must pay all covered workers at least \$12.90 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2024.

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at <http://www.dol.gov/whd/govcontracts>.

Modification Number Publication Date
 0 01/05/2024

1	03/08/2024
2	04/05/2024
3	05/31/2024
4	07/05/2024
5	08/30/2024
6	09/27/2024

BOIL0175-001 01/01/2021

	Rates	Fringes
BOILERMAKER.....	\$ 35.23	26.61

BRNY0002-012 06/01/2018

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER...	\$ 37.23	19.51

FOOTNOTE

a. Paid Holidays: Memorial Day, July the 4th, Labor Day, and Thanksgiving Day (provided the employee is employed one day before and one day after the holiday).

* CARP0277-007 07/01/2024

	Rates	Fringes
Carpenters: HEAVY & HIGHWAY CONSTRUCTION.....	\$ 38.28	26.26

a. PAID HOLIDAYS: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Christmas Day

ELEC0910-005 04/01/2024

	Rates	Fringes
ELECTRICIAN.....	\$ 42.00	5.75%+24.63

ELEC1249-003 05/01/2023

	Rates	Fringes
ELECTRICIAN (LINE CONSTRUCTION: LIGHTING AND TRAFFIC SIGNAL Including any and all Fiber Optic Cable necessary for Traffic Signal Systems, Traffic Monitoring systems and Road Weather information systems)		
Flagman.....	\$ 29.59	7%+35.40
Groundman (Truck Driver)....	\$ 39.46	7%+35.40
Groundman Truck Driver (tractor trailer unit).....	\$ 41.92	7%+35.40
Lineman & Technician.....	\$ 49.32	7%+35.40
Mechanic.....	\$ 39.46	7%+35.40

FOOTNOTE:

a. New Year's Day, Memorial Day, Independence Day, Labor

Day, Thanksgiving Day, Christmas Day, plus President's Day, Good Friday, Decoration Day, Election Day for the President of the United States and Election Day for the Governor of the State of New York, provided the employee works the day before or the day after the holiday.

 ELEC1249-004 05/01/2023

	Rates	Fringes
ELECTRICIAN (Line Construction)		
Overhead and underground distribution and maintenance work and all overhead and underground transmission line work including any and all fiber optic ground wire, fiber optic shield wire or any other like product by any other name manufactured for the dual purpose of ground fault protection and fiber optic capabilities :		
Flagman.....	\$ 34.44	7%+35.40
Groundman digging machine operator.....	\$ 51.66	7%+35.40
Groundman truck driver (tractor trailer unit)....	\$ 48.79	7%+35.40
Groundman Truck driver.....	\$ 45.92	7%+35.40
Lineman and Technician.....	\$ 57.40	7%+38.40
Mechanic.....	\$ 45.92	7%+35.40
Substation:		
Cable Splicer.....	\$ 63.14	7%+38.40
Flagman.....	\$ 34.44	7%+35.40
Ground man truck driver....	\$ 45.92	7%+35.40
Groundman digging machine operator.....	\$ 51.66	7%+35.40
Groundman truck driver (tractor trailer unit)....	\$ 48.79	7%+35.40
Lineman & Technician.....	\$ 57.40	7%+38.40
Mechanic.....	\$ 45.92	7%+35.40
Switching structures; railroad catenary installation and maintenance, third rail type underground fluid or gas filled transmission conduit and cable installations (including any and all fiber optic ground product by any other name manufactured for the dual purpose of ground fault protection and fiber optic capabilities), pipetype cable installation and maintenance jobs or projects, and maintenance bonding of rails; Pipetype cable installation		

Cable Splicer.....	\$ 64.59	7%+38.40
Flagman.....	\$ 35.23	7%+35.40
Groundman Digging Machine Operator.....	\$ 52.85	7%+35.40
Groundman Truck Driver (tractor-trailer unit).....	\$ 49.91	7%+35.40
Groundman Truck Driver.....	\$ 46.98	7%+35.40
Lineman & Technician.....	\$ 58.72	7%+38.40
Mechanic.....	\$ 46.98	7%+35.40

FOOTNOTE:

a. PAID HOLIDAYS: New Year's Day, Presidents' Day, Memorial Day, Good Friday, Independence Day, Labor Day, Thanksgiving Day, Christmas Day, and Election Day for the President of the United States and Election Day for the Governor of New York State, provided the employee works two days before or two days after the holiday.

ELEC1249-008 01/01/2024

	Rates	Fringes
ELECTRICIAN (Line Construction) TELEPHONE, CATV FIBEROPTICS CABLE AND EQUIPMENT		
Cable splicer.....	\$ 39.24	3%+5.70
Groundman.....	\$ 19.74	3%+5.70
Installer Repairman- Teledata Lineman/Technician- Equipment Operator.....	\$ 37.24	3%+5.70
Tree Trimmer.....	\$ 31.45	3%+10.48

a. New Year's Day, President's Day, Good Friday, Decoration Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day, Day after Thanksgiving, Christmas Day.

ELEV0062-002 01/01/2024

	Rates	Fringes
ELEVATOR MECHANIC.....	\$ 56.01	37.885+a+b

FOOTNOTE:

a. Vacation: 6%/under 5 years based on regular hourly rate for all hours worked. 8%/over 5 years based on regular hourly rate for all hours worked.
b. PAID HOLIDAYS: New Year's Day; Memorial Day; Independence Day; Labor Day; Veterans' Day; Thanksgiving Day; the Friday after Thanksgiving Day; and Christmas Day.

ENGI0158-010 07/01/2017

LEWIS AND ST LAWRENCE COUNTIES

	Rates	Fringes
Power Equipment Operator BUILDING		

GROUP 1.....	\$ 36.84	23.80+a
GROUP 2.....	\$ 34.78	23.80+a
GROUP 3.....	\$ 30.68	23.80+a
GROUP 4.....	\$ 38.84	23.80+a

POWER EQUIPMENT OPERATORS CLASSIFICATIONS (BUILDING)

GROUP 1: Air plako, asphalt and blacktop roller, automated concrete spreader (CMI or equivalent), automated fine grade machine (CMI), backhoe, Belt placer, blacktop spreader (such as barber Greene & Blaw Knox), blacktop plant (automated), blast or rotary drill (truck or cat mounted), boom truck, cableway, caisson auger, Carry-all Scraper (self-loading), central mix plant (automated), cherry picker (15 ton capacity), Compressor, pump, generator or welding machine (when used in a battery of not more than 4); crane, crusher (rock), derrick, diesel power unit, dragline, dredge, dual drum paver, elevating grader (self-propelled) or towed, elevator hoist (2 cage), excavator (all purpose-hydraulically operated), fork lift (loed and lull and other rough terrain type), front end loader (4 c.y. and over), gradall, grader (power), head tower (Saurman or equal), host (2 or 3 drums), hydroblaster (laser pump), (LCM's) work boat operator, light plants (compressors and generators), locomotive, maintenance engineer, maintenance welder, mine hoist, mucking machine or mole, overhead crane -fixed permanent, pile driver, quarry master or equivalent, refrigeration equipment (for soil stabilization), sea mule, shovel, side boom, slip form paver, straddle buggy (ross carrier, lumber carrier), tractor drawn belt type loader (Euclid loader), tranching machine (digging capacity of over 4 ft depth), truck crane (operator), truck of trailer mounted log chipper (self feeder), tug operator (except, rented equipment), tunnel shovel, vibro or sonic hammer controls (when not mounted in proximity to the rig operator

GROUP 2: ""A"" frame truck, blacktop plant (non automatic), All Back Dumps, boring machine, bulldozer, cagehoist, Carry-all scraper, central mix plant (non automated), cherry picker 15 tons and under), Compressor (500 C.F. and over), concrete paver (single drum over 16S), Concrete Pump, core boring machine, drill rigs (tractor mounted), elevator (as a material hoist), fork lift (all others), front end loader (under 4 c.y.), gunite machine, high pressure boilder 15 lbs & over), hoist (one drum), hydraulic breaking hammer (drop hammer), Kolman plant loader (screening gravel), maintenance grease man, mixer for stabilized base (self propelled Seaman mixer), monorail machine, parapet concrete or pavement grinder, post hole digger (truck or tractor mounted), power sweeper (wayne or similar), pump (4"" and over, pump-crete or squeeze-crete, road widener (front end of grader or self prop.), roller, self contained hydraulic bench drill, shell winder (motorized), snorkel (overhead arms), snowblower control man, trenching machine (digging capacity of 4 ft or less), tigger hoist, vibrotamp, well drill, well point system, winch (motor driver),winch cat, winch truck (submersible pumps when used in lieu of well point system

GROUP 3: Compressor (up to 500 C.F.), concrete paver or mixer (under 16S), concrete pavement spreaders and finishers (not automated), conveyor (over 12 ft), electric submersible pump (4"" and over), farm tractor with or without accessories, fine grade machine (not automated),

fireman, form tamper, generator (2,500 Watts and over), grout pump, hydraulic pump, mechanical heaters (more than 2 mechanical heaters or any mechanical heater or heaters whose combined output exceeds 640,000 BTU per hour (manufacturer's rating) plus one contained heating unit (i.e. sundog, air heat type, new Holland hay dryer type excluded), mulching machine, oiler, power driven welding machine - 300 amp. and over (other than all electric), power heaterman (hay dryer), pump (under 4""), rewinus widener (road widener), single light plant, steam cleaner or jenny, tractor with or without towed accessories

GROUP 4: Master mechanic

PREMIUMS:

Hazmat work 2.50
Quad 9 Bulldozer or Multibowl Scraper .50

CRANE PREMIUMS (Add to Group 1 Rate):

All Lattice Boom Cranes (65 ton capacity and over) Group 1 Rate Plus 1.75
All Hydraulic Cranes (100 ton capacity and over) Group 1 Rate Plus 1.75
All Hydraulic Cranes (80 ton capacity to 99 ton capacity) Group 1 Rate Plus 1.25
All Hydraulic Cranes (65 ton capacity to 79 ton capacity) Group 1 Rate Plus 1.10

FOOTNOTE:

a. PAID HOLIDAYS: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day provided the employee has worked five consecutive working days before and the working day after the holiday.

ENGI0158-020 07/01/2024

Rates Fringes

Power equipment operators:

Table with 2 columns: Group, Rates, Fringes. Rows include GROUP 1 through GROUP 7 with corresponding rates and fringe values.

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1: Asphalt Curb Machine, Self Propelled, Slipform, Automated Concrete Spreader (CMI Type), Automatic Fine Grader, Backhoe (Except Tractor Mounted, Rubber Tired), Backhoe Excavator Full Swing (CAT 212 or similar type), Back Filling Machine, Belt Placer (CMI Type), Blacktop Plant (Automated), Boom truck , Cableway, Caisson Auger, Central Mix Concrete Plant (Automated), Concrete Curb Machine, Self Propelled, Slipform, Concrete Pump, Crane, Cherry Picker, Derricks (steel erection), Dragline, Overhead Crane (Gantry or Straddle type), Pile Driver, Truck Crane, Directional Drilling Machine, Dredge, Dual Drum Paver, Excavator (All Purpose Hydraulically Operated) (Gradall or Similar), Front End Loader (4 cu. yd. and Over), Head Tower (Sauerman or Equal), Hoist (Two or Three

Drum), Holland Loader, Maintenance Engineer, Mine Hoist, Mucking Machine or Mole Pavement Breaker(SP) Wertgen; PB-4 and similar type, Power Grader, Profiler (over 105 H.P.) Quad 9, Quarry Master (or equivalent), Scraper, Fireman, Fork Lift, Form Tamper, Grout Pump, Guniting Machine, Hammers (Hydraulic self-propelled), Hydra-Spiker, ride-on, Hydraulic Pump (jacking system), Hydro-Blaster (Water), Mulching Machine, Oiler, Parapet Concrete or Pavement, Shovel, Side Boom, Slip Form Paver, Tractor Drawn, BeltType Loader, Truck or Trailer Mounted Log , Chipper (Self Feeder), Tug Operator (Manned Rented Equipment Excluded), Tunnel Shovel

GROUP 2: Asphalt Paver, Backhoe (Tractor Mounted, Rubber Tired), Bituminous Recycler Machine, Bituminous Spreader and Mixer, Blacktop Plant (NonAutomated), Blast or Rotary Drill (Truck or Tractor Mounted), Boring Machine, Cage Hoist, Central Mix Plant (NonAutomated) and All Concrete Batching Plants, Cherry Picker (5 tons capacity and under), Concrete Paver (Over 16S), Crawler Drill, Self-contained, Crusher, Diesel Power Unit, Drill Rigs, Tractor Mounted, Front End Loader (Under 4 cu. yd.), Greaseman/Lubrication Engineer, HiPressure Boiler (15 lbs. and over), Hoist (One Drum), Hydro-Axe, Kolman Plant Loader and Similar Type Loaders, L.C.M. Work Boat Operator, Locomotive Mixer (for stabilized base selfpropelled), Monorail Machine, Plant Engineer, Profiler (105 H.P. and under), Grinder, Post Hole Digger and Post Driver, Power Broom (towed), Power Heaterman, Power Sweeper, Revinus Widener, Roller (Grade and Fill), Scarifier, ride-on, Shell Winder, Skid steer loader (Bobcat or similar), Span-Saw, ride-on, Steam Cleaner, Pug Mill, Pump Crete Ready Mix Concrete Plant Refrigeration Equipment (for soil stabilization)Road Widener, Roller (all above subgrade), Sea Mule, Self-contained Ride-on Rock Drill, Excluding Air-Track Type Drill, Skidder, Tractor with Dozer and/or Pusher, Trencher. Tugger Hoist, Vermeer saw (ride on, any size or type), Winch, Winch Cat

GROUP 3: A Frame Winch Hoist on Truck , Articulated Heavy Hauler, Aggregate Plant, Asphalt or Concrete Grooving, Machine (ride on), Ballast Regulator, Ride-on Boiler (used in conjunction with production), Bituminous Heater, self-propelled, Boat (powered), Cement and Bin Operator, Compressors, Dust Collectors, Generators, Pumps, Welding Machines, Light Plants, Heaters (hands-off equipment), Concrete Pavement Spreader and Finisher, Concrete Paver or Mixer (16S and under), Concrete Saw (self-propelled), Conveyor, Deck Hand, Directional Drill Machine Locator, Drill, (Core), Drill, (Well,) Farm Tractor with accessories, Fine Grade Machine, Tamper, ride-on, Tie Extractor, ride-on, Tie Handler, ride-on, Tie Insertter, ride-on, Tie Spacer, ride-on, Tire Repair, Track Liner, ride-on, Tractor, Tractor (with towed accessories), Vibratory Compactor, Vibro Tamp, Well Point

GROUP 4: Tower Cranes

GROUP 5: Cranes 50 tons and over

GROUP 6: Cranes 49 tons and below

GROUP 7: Master Mechanic

FOOTNOTE:

a. New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Christmas Day provided the employee has worked the working day before and the working day after the holiday.

IRON0060-003 07/01/2023

HEAVY/HIGHWAY CONSTRUCTION

JEFFERSON COUNTY (Townships of Adams, Alexandria, Brownsville, Cape Vincent, Clayton, Ellisburg, Henderson, Housfield, Le Ray, Lorraine, Lyme, Orleans, Pamelaia, Rodman, Rutland, Theresa, Watertown and Worth)

Rates Fringes

IRONWORKER

Structural, Ornamental,
reinforcing precast
concrete erector,
machinery mover & rigger,
fence erector, stone
derrickman, welder,
sheeter, sheeter bucket-up..\$ 33.00 30.83

IRON0440-005 07/01/2023

HEAVY/HIGHWAY CONSTRUCTION (REMAINDER OF JEFFERSON COUNTY)

LEWIS AND ST. LAWRENCE COUNTIES BUILDING/HEAVY/HIGHWAY
CONSTRUCTION

Rates Fringes

IRONWORKER

STRUCTURAL, ORNAMENTAL,
RODMAN, MACHINERY MOVERS &
RIGGER, FENCE ERECTOR,
REINFORCING, STONE
DERRICKMAN.....\$ 32.00 31.00

LAB01822-004 07/01/2023

LEWIS AND ST. LAWRENCE COUNTIES ONLY

JEFFERSON, LEWIS AND ST. LAWRENCE COUNTIES

Rates Fringes

Laborers:

HEAVY & HIGHWAY
GROUP 1.....\$ 31.27 27.80+a
GROUP 2.....\$ 31.27 27.80+a
GROUP 3.....\$ 31.47 27.80+a
GROUP 4.....\$ 31.67 27.80+a
GROUP 5.....\$ 34.27 27.80+a

FOOTNOTE:

a. New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Christmas Day, provided the employee has worked the working day before the holiday and working day after the holiday.

LABORER CLASSIFICATIONS

GROUP 1: Laborers, flaggers, outboard and hand boats.

GROUP 2: Bull float, chain saw, concrete aggregate, bin concrete bootman, gin buggy, hand or machine vibrator, jackhammer, mason tender, mortar mixer, pavement breaker, handlers of all steel mesh, small generators for laborers; tools, installation of bridge drainage pipe, pipelayers, vibrator type rollers, tamper, drill doctor, tail or screw operator on asphalt paver, water pump operator (1 1/2 inch and single diaphragm), nozzle (asphalt, gunnite, seeding and sandblasting), laborers on chain link fence erection, rock splitter and power unit, pusher type concrete saw and all other gas, electric, oil and air tool operators, wrecking laborer.

GROUP 3: All rock or drill machine operators (except quarry master and similar type, acetylene torch operators, asphalt raker, powderman.

GROUP 4: Blasters, form setters, stone or granite curb setters.

GROUP 5: Hazardous waste removal.

 PAIN004-022 05/01/2023

LEWIS COUNTY (Townships of High Market, Lewis, Leyden, Lyonsdale, Osceola, Turin and West Turin)

	Rates	Fringes
Painter, Bridge		
HEAVY & HIGHWAY		
CONSTRUCTION		
Bridges.....	\$ 42.06	30.59
Painter:		
BUILDING CONSTRUCTION		
Brush & Roll, Drywall		
Taping/Finishing.....	\$ 23.25	21.21
Spray/Sandblasting/Structural		
Steel.....	\$ 23.75	21.21

 PAIN004-026 05/01/2023

JEFFERSON COUNTY; LEWIS COUNTY (Townships of Diana, Croghan, New Bremen, Watson, Greig, Martinsburg, Lwville, Denmark, Harrisburg, Montague and Pinckney); ST. LAWRENCE COUNTY

	Rates	Fringes
Painters:		
Bridge.....	\$ 42.06	30.59
Brush & Roll,		
Paperhanging, Wallcoverings.	\$ 23.25	21.21
Sandblasting.....	\$ 23.75	21.21

Steel Painting.....	\$ 23.75	21.21
Steel Spray Painting.....	\$ 23.75	21.21
Swing Staging, Window Jacks, Cup Spray Painting, Steam Cleaning and Hydro Water Blasting.....	\$ 23.75	21.21

PAIN0677-001 05/01/2023

Rates Fringes

GLAZIER.....	\$ 28.05	27.95
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PLUM0073-003 05/01/2019

JEFFERSON, LEWIS (Twp of Diana, Croghan, New Bremen, Watson, Greig, Martinsburg, Lewisville, Denmark, Harrisburg, Montague, Pinkney, Highmarket, Oscellia, and Turin) AND ST. LAWRENCE COUNTIES

Rates Fringes

Plumber and Steamfitter.....	\$ 31.43	23.61
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PLUM0112-004 05/01/2024

LEWIS COUNTY Townships of Lewis, Leyden, Lyonsdale, West Turin

Rates Fringes

PLUMBER (Including Steamfitting) Northern Zone.....	\$ 43.65	32.70
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ROOF0195-001 06/01/2023

Rates Fringes

ROOFER.....	\$ 32.25	25.51
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SFNY0669-001 01/01/2024

Rates Fringes

SPRINKLER FITTER.....	\$ 42.73	27.05
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SHEE0058-004 05/01/2024

LEWIS and ST. LAWRENCE COUNTIES

Rates Fringes

Sheet Metal Worker Projects over \$10 million..	\$ 36.35	22.85
Incl. HVAC Duct Projects with sheetmetal work totaling \$10 million or less.....	\$ 35.25	22.85

TEAM0687-001 06/01/2018

Rates Fringes

Truck drivers:

HEAVY & HIGHWAY

GROUP 1.....	\$ 25.82	25.16+a
GROUP 2.....	\$ 26.04	25.16+a

FOOTNOTE:

a. PAID HOLIDAYS: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day

TRUCK DRIVERS CLASSIFICATIONS:

GROUP 1: Pick-ups, panel trucks, flatboy material trucks (strait jobs), single axle dump trucks, dumpsters, greasers, truck tiremen,, parts chaser, tandems and batch trucks, mechanics, semi trailer, lowboy trucks, asphalt distributor trucks and agitator, mixer trucks and dumpcrete type vehicles, truck mechanic, fuel truck and bus

GROUP 2: Special earth moving quipment (euclid type), or similar off highway equipment, where not self loaded, straddle (ross) carrier, and self contained concrete mobile unit, off highway tandem back dump, twin engine equipment and double hitched equipment where not self loaded

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at <https://www.dol.gov/agencies/whd/government-contracts>.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (iii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of ""identifiers"" that indicate whether the particular

rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than ""SU"" or ""UAVG"" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

State Adopted Rate Identifiers

Classifications listed under the ""SA"" identifier indicate that the prevailing wage rate set by a state (or local) government

was adopted under 29 C.F.R. 1.3(g)-(h). Example: SAME2023-007 01/03/2024. SA reflects that the rates are state adopted. ME refers to the State of Maine. 2023 is the year during which the state completed the survey on which the listed classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 01/03/2024 reflects the date on which the classifications and rates under the ?SA? identifier took effect under state law in the state from which the rates were adopted.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour National Office because National Office has responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION"

**SECTION 03 3000
CAST-IN-PLACE CONCRETE**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Concrete formwork.
- B. Slabs on grade.
- C. Concrete foundation walls and Retaining Walls.
- D. Concrete footings
- E. Concrete reinforcement.
- F. Joint devices associated with concrete work.
- G. Concrete curing.
- H. Grout for patching surface defects and plugging tie holes

1.02 RELATED REQUIREMENTS

- A. Section 07 9200 - Joint Sealants: Products and installation for sealants and joint fillers for saw cut joints and isolation joints in slabs.
- B. Section 32 1313 - Concrete Paving: Sidewalks, curbs and gutters.

1.03 REFERENCE STANDARDS

- A. ACI CODE-318 - Building Code Requirements for Structural Concrete and Commentary; 2019 (Reapproved 2022).
- B. ACI PRC-211.1 - Selecting Proportions for Normal-Density and High Density-Concrete - Guide; 2022.
- C. ACI PRC-302.1 - Guide to Concrete Floor and Slab Construction; 2015.
- D. ACI PRC-304 - Guide for Measuring, Mixing, Transporting, and Placing Concrete; 2000 (Reapproved 2009).
- E. ACI PRC-305 - Guide to Hot Weather Concreting; 2020.
- F. ACI PRC-306 - Guide to Cold Weather Concreting; 2016.
- G. ACI PRC-308 - Guide to External Curing of Concrete; 2016.
- H. ACI PRC-347 - Guide to Formwork for Concrete; 2014 (Reapproved 2021).

- I. ACI SPEC-117 - Specification for Tolerances for Concrete Construction and Materials; 2010 (Reapproved 2015).
- J. ACI SPEC-301 - Specifications for Concrete Construction; 2020.
- K. ACI 350 - Code Requirements for Environmental Engineering Concrete Structures and Commentary; 2006.
- L. ASTM A615/A615M - Standard Specification for Deformed and Plain Carbon-Steel Bars for Concrete Reinforcement; 2022.
- M. ASTM A1064/A1064M - Standard Specification for Carbon-Steel Wire and Welded Wire Reinforcement, Plain and Deformed, for Concrete; 2022.
- N. ASTM C33/C33M - Standard Specification for Concrete Aggregates; 2023.
- O. ASTM C39/C39M - Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens; 2023.
- P. ASTM C94/C94M - Standard Specification for Ready-Mixed Concrete; 2024.
- Q. ASTM C143/C143M - Standard Test Method for Slump of Hydraulic-Cement Concrete; 2020.
- R. ASTM C150/C150M - Standard Specification for Portland Cement; 2022.
- S. ASTM C171 - Standard Specification for Sheet Materials for Curing Concrete; 2020.
- T. ASTM C173/C173M - Standard Test Method for Air Content of Freshly Mixed Concrete by the Volumetric Method; 2023.
- U. ASTM C260/C260M - Standard Specification for Air-Entraining Admixtures for Concrete; 2010a (Reapproved 2016).
- V. ASTM C494/C494M - Standard Specification for Chemical Admixtures for Concrete; 2019, with Editorial Revision (2022).
- W. ASTM C618 - Standard Specification for Coal Ash and Raw or Calcined Natural Pozzolan for Use in Concrete; 2023, with Editorial Revision.
- X. ASTM C1059/C1059M - Standard Specification for Latex Agents for Bonding Fresh to Hardened Concrete; 2021.
- Y. ASTM C1602/C1602M - Standard Specification for Mixing Water Used in the Production of Hydraulic Cement Concrete; 2022.
- Z. ASTM D1752 - Standard Specification for Preformed Sponge Rubber, Cork, and Recycled PVC Expansion Joint Fillers for Concrete Paving and Structural Construction; 2018 (Reapproved 2023).

1.04 SUBMITTALS

- A. Product Data: Submit manufacturers' data on manufactured products showing compliance with specified requirements and installation instructions.
 - 1. Provide product data and manufacturer's installation instructions for grout used for plugging tie holes and patching surface defects.
 - 2. For membrane-forming, moisture emission-reducing, curing and sealing compound, provide manufacturer's installation instructions,.
- B. Mix Design: Submit proposed concrete mix designs.
 - 1. Indicate proposed mix design complies with requirements of ACI SPEC-301, Section 4 - Concrete Mixtures.
 - 2. Indicate proposed mix design complies with requirements of ACI CODE-318, Chapter 5 - Concrete Quality, Mixing and Placing.
 - 3. Indicate proposed mix design complies with admixture manufacturer's written recommendations.
 - 4. Indicate proposed mix design complies with expansive component manufacturer's written recommendations.
- C. Test Reports: Submit report for each test or series of tests specified.
- D. Manufacturer's Installation Instructions: For concrete materials, accessories, indicate installation procedures and interface required with adjacent construction.
- E. Project Record Documents: Accurately record actual locations of embedded utilities and components that will be concealed from view upon completion of concrete work.
- F. Reinforcement Shop Drawing - Submit shop drawings in accordance with ACI 301, ACI 315, ACI 315R, and as modified below.
 - 1. Shop drawings shall be clear enough so that every reinforcing bar in the structure can be located and shall be complete with all dimensions of the structure without the need to refer to the Contract Drawings.
 - 2. A reinforcing bar layout plan shall be provided for each slab or walkway level, and an elevation view reinforcing bar layout shall be provided for each wall.
 - 3. Shop drawings shall clearly indicate all construction joints, expansion joints, and control joints. The Contractor shall coordinate with the reinforcement detailer so that all reinforcement interruptions and/or all splices can be shown and accounted for in the detailing.
 - 4. Reinforcement shall be shown as bent where needed to clear waterstops and/or maintain uniform cover. Bars with bends shall be indicated schematically on the plan and elevation views.

5. Coordinate all openings and pipe penetrations in walls and slabs and indicate these on the reinforcement shop drawings. Formed openings larger than 8 inches in any direction shall be detailed with additional reinforcement around the opening.
6. Photocopies of Contract Drawings, in whole or in part, will not be acceptable.
7. Re-submittals of shop drawings shall have all revisions and/or corrections clearly highlighted to the Engineer (e.g. labeled, clouded, etc.)
8. Final corrected copies of shop drawings (for file and to be used in the field) shall be submitted a minimum of 14 days prior to start of installation.
9. No fabrication of reinforcement shall commence until shop drawings are approved.
10. All reinforcement shall be shop fabricated. No reinforcement shall be field bent.

1.05 QUALITY ASSURANCE

- A. Manufacturer Qualifications: A firm experienced in manufacturing ready-mixed concrete products and that complies with ASTM C 94/C 94M requirements for production facilities and equipment.
 1. Manufacturer certified according to NRMCA's "Certification of Ready Mixed Concrete Production Facilities."
- B. Perform work of this section in accordance with ACI SPEC-301 and ACI CODE-318.
 1. Maintain one copy of each document on site.
- C. Follow recommendations of ACI PRC-305 when concreting during hot weather.
- D. Follow recommendations of ACI PRC-306 when concreting during cold weather.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. Steel Reinforcement: Deliver, store, and handle steel reinforcement to prevent bending and damage.

PART 2 PRODUCTS

2.01 FORMWORK

- A. Formwork Design and Construction: Comply with guidelines of ACI 347R to provide formwork that will produce concrete complying with tolerances of ACI 117.
- B. Smooth-Formed Finished Concrete: Form-facing panels that will provide continuous, true, and smooth concrete surfaces. Furnish in largest practicable sizes to minimize number of joints.
 1. Plywood, metal, or other approved panel materials.

- C. Forms for Cylindrical Columns, Pedestals, and Supports: Metal, glass-fiber-reinforced plastic, paper, or fiber tubes that will produce surfaces with gradual or abrupt irregularities not exceeding specified formwork surface class. Provide units with sufficient wall thickness to resist plastic concrete loads without detrimental deformation.
- D. Chamfer Strips: Wood, metal, PVC, or rubber strips, 3/4 by 3/4 inch (19 by 19 mm), minimum.
- E. Form-Release Agent: Commercially formulated form-release agent that will not bond with, stain, or adversely affect concrete surfaces and will not impair subsequent treatments of concrete surfaces.
 - 1. Formulate form-release agent with rust inhibitor for steel form-facing materials
- F. Form Ties: Factory-fabricated, removable or snap-off metal or glass-fiber-reinforced plastic form ties designed to resist lateral pressure of fresh concrete on forms and to prevent spilling of concrete on removal.
 - 1. Furnish ties that, when removed, will leave holes no larger than 1 inch (25 mm) in diameter in concrete surface.
 - 2. Furnish ties with integral water-barrier plates to walls indicated to receive damp proofing or waterproofing.
- G. Form Materials: Contractor's choice of standard products with sufficient strength to withstand hydrostatic head without distortion in excess of permitted tolerances.
 - 1. Form Facing for Exposed Finish Concrete: Contractor's choice of materials that will provide smooth, stain-free final appearance.
 - 2. Earth Cuts: Do not use earth cuts as forms for vertical surfaces. Natural rock formations that maintain a stable vertical edge may be used as side forms.
 - 3. Form Coating: Release agent that will not adversely affect concrete or interfere with application of coatings.
 - 4. Form Ties: Cone snap type that will leave no metal within 1-1/2 inches of concrete surface.

2.02 REINFORCEMENT MATERIALS

- A. Reinforcing Steel: ASTM A615/A615M, Grade 60 (60,000 psi).
 - 1. Type: Deformed or Plain billet-steel bars.
 - 2. Finish: Unfinished, unless otherwise indicated.
- B. Steel Welded Wire Reinforcement (WWR): Plain type, ASTM A1064/A1064M.
 - 1. Form: Flat Sheets.

2. WWR Style: As indicated on drawings.
- C. Reinforcement Accessories:
1. Tie Wire: Annealed, minimum 16 gauge, 0.0508 inch.
 2. Chairs, Bolsters, Bar Supports, Spacers: Sized and shaped for adequate support of reinforcement during concrete placement.
 3. Provide galvanized, plastic, or plastic coated steel components for placement within 1-1/2 inches of weathering surfaces.

2.03 CONCRETE MATERIALS

- A. Cement: ASTM C150/C150M, Type I - Normal, Type II - Moderate Portland type or Type I/II.
1. Acquire cement for entire project from same source.
- B. Fine and Coarse Aggregates: ASTM C33/C33M.
1. Acquire aggregates for entire project from same source.
 2. Coarse aggregates shall be strong, clean crushed limestone complying with ASTM C33/C33M, provided from one source.
 3. Sand: Clean sharp, natural sand, graded in accordance with ASTM C33.
- C. Fly Ash: ASTM C618, Class F.
- D. Water: ASTM C1602/C1602M; clean, potable, and not detrimental to concrete.

2.04 ADMIXTURES

- A. Do not use chemicals that will result in soluble chloride ions in excess of 0.1 percent by weight of cement.
- B. Air Entrainment Admixture: ASTM C260/C260M.
- C. High Range Water Reducing and Retarding Admixture: ASTM C494/C494M Type G.
- D. High Range Water Reducing Admixture: ASTM C494/C494M Type F.
- E. Water Reducing and Accelerating Admixture: ASTM C494/C494M Type E.
- F. Water Reducing and Retarding Admixture: ASTM C494/C494M Type D.
- G. Accelerating Admixture: ASTM C494/C494M Type C.
- H. Retarding Admixture: ASTM C494/C494M Type B.

- I. Water Reducing Admixture: ASTM C494/C494M Type A.

2.05 ACCESSORY MATERIALS

2.06 BONDING AND JOINTING PRODUCTS

- A. Latex Bonding Agent: Non-redispersable acrylic latex, complying with ASTM C1059/C1059M, Type II.
- B. Bonding Agent – Use a corrosion inhibiting, non-vapor barrier, extended open time bonding compound. Use Sika Corporation “Armatec 110 EpoCem,” BASF Chemical Company “Emaco P24,” Euclid Chemical Company “Duralprep A.C.,” or equal.
- C. Slab Construction Joint Devices: Combination keyed joint form and screed, galvanized steel, with rectangular or round knockout holes for conduit or rebar to pass through joint form at 6 inches on center; ribbed steel stakes for setting.

2.07 CURING MATERIALS

- A. Evaporation Reducer: Liquid thin-film-forming compound that reduces rapid moisture loss caused by high temperature, low humidity, and high winds; intended for application immediately after concrete placement.
- B. Curing Compound, Naturally Dissipating: Clear, water-based, liquid membrane-forming compound; complying with ASTM C309.
- C. Moisture-Retaining Sheet: ASTM C171.
 - 1. Polyethylene film, white opaque, minimum nominal thickness of 4 mil, 0.004 inch.
 - 2. White-burlap-polyethylene sheet, weighing not less than 3.8 ounces per square yard.
- D. Water: Potable, not detrimental to concrete.

2.08 CONCRETE MIX DESIGN

- A. Proportioning Normal Weight Concrete: Comply with ACI PRC-211.1 recommendations.
 - 1. Replace as much Portland cement as possible with fly ash, ground granulated blast furnace slag, silica fume, or rice hull ash as is consistent with ACI recommendations.
- B. Concrete Strength: Establish required average strength for each type of concrete on the basis of field experience, as specified in ACI SPEC-301.
- C. Admixtures: Add acceptable admixtures as recommended in ACI PRC-211.1 and at rates recommended or required by manufacturer.
- D. Normal Weight Concrete:

1. Compressive Strength, when tested in accordance with ASTM C39/C39M at 28 days
4,000 pounds per square inch
 - a. Footings: 4,000 psi at 28 days
 - b. Foundation Walls: 4,000 psi at 28 days
 - c. Slabs on Grade: 4,000 psi at 28 days
2. Fly Ash Content: Maximum 25 percent of cementitious materials by weight.
3. Water-Cement Ratio:
 - a. Footings: 0.44 max
 - b. Foundation Walls: 0.44 max
 - c. Slabs on Grade: 0.44 max
4. Total Air Content: as determined in accordance with ASTM C173/C173M:
 - a. Footings: 3% (+/- 1.5%)
 - b. Foundation Walls: 6% (+/- 1.5%)
 - c. Slabs on Grade: Do not allow air content of trowel-finished floors to exceed 3%
5. Maximum Slump:
 - a. Footings: 3 inch +/- 1 inch
 - b. Foundations Walls: 3 inch +/- 1 inch
 - c. Slabs: 3 inch +/- 1 inch
6. Maximum Aggregate Size: 1 inch.

2.09 MIXING

- A. Transit Mixers: Comply with ASTM C94/C94M.
- B. Adding Water: If concrete arrives on-site with slump less than suitable for placement, do not add water that exceeds the maximum water-cement ratio or exceeds the maximum permissible slump.
- C. All concrete shall be mixed until there is uniform distribution of materials and shall be discharged completely before mixer is recharged.
- D. If concrete is not placed within 90 minutes after batched or if the concrete has become partially set, the concrete will be rejected and shall be disposed of off-site.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify lines, levels, and dimensions before proceeding with work of this section.

3.02 PREPARATION

- A. Formwork: Comply with requirements of ACI 301.
 - 1. Design, erect, shore, brace, and maintain formwork, according to ACI 301, to support vertical, lateral, static, and dynamic loads, and construction loads that might be applied, until structure can support such loads.
 - 2. Construct formwork so concrete members and structures are of size, shape, alignment, elevation, and position indicated, within tolerance limits of ACI 117.
 - 3. Construct forms tight enough to prevent loss of concrete mortar.
 - 4. Fabricate forms for easy removal without hammering or prying against concrete surfaces. Provide crush or wrecking plates where stripping may damage cast concrete surfaces. Provide top forms for inclined surfaces steeper than 1.5 horizontal to 1 vertical.
 - a. Install keyways, reglets, recesses, and the like, for easy removal.
 - b. Do not use rust-stained steel form-facing material.
 - 5. Form openings, chases, offsets, sinkages, keyways, reglets, blocking, screeds, and bulkheads required in the Work. Determine sizes and locations from trades providing such items.
 - 6. Clean forms and adjacent surfaces to receive concrete. Remove chips, wood, sawdust, dirt, and other debris just before placing concrete
 - 7. Retighten forms and bracing before placing concrete, as required, to prevent mortar leaks and maintain proper alignment.
 - 8. Coat contact surfaces of forms with form-release agent, according to manufacturer's written instructions, before placing reinforcement.
 - 9. Verify that forms are clean and free of rust before applying release agent.
 - 10. Coordinate placement of embedded items with erection of concrete formwork and placement of form accessories.
- B. Where new concrete is to be bonded to previously placed concrete, prepare existing surface by cleaning and applying bonding agent in according to bonding agent manufacturer's instructions.
- C. In locations where new concrete is doweled to existing work, drill holes in existing concrete, insert steel dowels and pack solid with non-shrink grout.

3.03 INSTALLING REINFORCEMENT AND OTHER EMBEDDED ITEMS

- A. Comply with requirements of ACI SPEC-301. Clean reinforcement of loose rust and mill scale, and accurately position, support, and secure in place to achieve not less than minimum concrete coverage required for protection.
- B. Install welded wire reinforcement in maximum possible lengths, and offset end laps in both directions. Splice laps with tie wire. Minimum lap at ends and edges shall be 6".
- C. General: Comply with CRSI's "Manual of Standard Practice" for placing reinforcement.
 - 1. Do not cut or puncture vapor retarder. Repair damage and reseal vapor retarder before placing concrete.
- D. Set wire ties with ends directed into concrete, not toward exposed concrete surfaces.
- E. Verify that anchors, seats, plates, reinforcement and other items to be cast into concrete are accurately placed, positioned securely, and will not interfere with concrete placement.
- F. Reinforcing bars shall be lap-spliced with bars placed in contact with each other and wired securely. Minimum lap splice lengths are as shown on Contract Drawings.
- G. Welding of reinforcing bars shall not be allowed unless specifically approved by the engineer.

3.04 PLACING CONCRETE

- A. Place concrete in accordance with ACI PRC-304.
- B. Place concrete for floor slabs in accordance with ACI PRC-302.1.
- C. Notify Engineer not less than 24 hours prior to commencement of placement operations.
- D. Maintain records of concrete placement. Record date, location, quantity, air temperature, and test samples taken.
- E. Ensure reinforcement, inserts, embedded parts, and formed construction joint devices will not be disturbed during concrete placement.
- F. Place concrete continuously without construction (cold) joints wherever possible; where construction joints are necessary, before next placement prepare joint surface by removing laitance and exposing the sand and sound surface mortar, by sandblasting or high-pressure water jetting.
- G. Deposit concrete continuously in one layer or in horizontal layers of such thickness that no new concrete is placed on concrete that has hardened enough to cause seams or planes of weakness. If a section cannot be placed continuously, provide construction joints as indicated. Deposit concrete to avoid segregation.

1. Deposit concrete in horizontal layers of depth not to exceed formwork design pressures and in a manner to avoid inclined construction joints.
 2. Consolidate placed concrete with mechanical vibrating equipment according to ACI 301.
 3. Do not use vibrators to transport concrete inside forms. Insert and withdraw vibrators vertically at uniformly spaced locations to rapidly penetrate placed layer and at least 6 inches into preceding layer. Do not insert vibrators into lower layers of concrete that have begun to lose plasticity. At each insertion, limit duration of vibration to time necessary to consolidate concrete and complete embedment of reinforcement and other embedded items without causing mixture constituents to segregate.
- H. Finish floors level and flat, unless otherwise indicated, within the tolerances specified below.
- I. Deposit and consolidate concrete for floors and slabs in a continuous operation, within limits of construction joints, until placement of a panel or section is complete.
1. Consolidate concrete during placement operations, so concrete is thoroughly worked around reinforcement and other embedded items and into corners.
 2. Maintain reinforcement in position on chairs during concrete placement.
 3. Screed slab surfaces with a straightedge and strike off to correct elevations.
 4. Slope surfaces uniformly to drains where required.
 5. Begin initial floating using bull floats or darbies to form a uniform and open-textured surface plane, before excess bleedwater appears on the surface. Do not further disturb slab surfaces before starting finishing operations.
- J. Cold Weather Placement: Comply with ACI 306.1 and as follows. Protect concrete work from physical damage or reduced strength that could be caused by frost, freezing actions, or low temperatures.
1. When average high and low temperature is expected to fall below 40 deg F for three successive days, maintain delivered concrete mixture temperature within the temperature range required by ACI 301.
 2. Do not use frozen materials or materials containing ice or snow. Do not place concrete on frozen subgrade or on subgrade containing frozen materials.
 3. Do not use calcium chloride, salt, or other materials containing antifreeze agents or chemical accelerators unless otherwise specified and approved in mixture designs.
- K. Hot-Weather Placement: Comply with ACI 301 and ACI 305.1, and as follows:
1. Maintain concrete temperature below 90 deg F at time of placement. Chilled mixing water or chopped ice may be used to control temperature, provided water equivalent of ice is calculated to total amount of mixing water. Using liquid nitrogen to cool concrete is

Contractor's option.

2. Fog-spray forms, steel reinforcement, and subgrade just before placing concrete. Keep subgrade uniformly moist without standing water, soft spots, or dry areas.

3.05 CONCRETE FINISHING

- A. Repair surface defects, including tie holes, immediately after removing formwork.
- B. Unexposed Form Finish: Rub down or chip off fins or other raised areas 1/4 inch or more in height.
- C. Exposed Form Finish: Rub down or chip off and smooth fins or other raised areas 1/4 inch or more in height. Provide finish as follows:
 1. Smooth Rubbed Finish: Wet concrete and rub with carborundum brick or other abrasive, not more than 24 hours after form removal.
 2. Grout Cleaned Finish: Wet areas to be cleaned and apply grout mixture by brush or spray; scrub immediately to remove excess grout. After drying, rub vigorously with clean burlap, and keep moist for 36 hours.
- D. Related Unformed Surfaces: At tops of walls, horizontal offsets, and similar unformed surfaces adjacent to formed surfaces, strike off smooth and finish with a texture matching adjacent formed surfaces. Continue final surface treatment of formed surfaces uniformly across adjacent unformed surfaces unless otherwise indicated.

3.06 CURING AND PROTECTION

- A. Comply with requirements of ACI PRC-308. Immediately after placement, protect concrete from premature drying, excessively hot or cold temperatures, and mechanical injury.
- B. Maintain concrete with minimal moisture loss at relatively constant temperature for period necessary for hydration of cement and hardening of concrete.
 1. Normal concrete: Not less than seven days.
- C. Formed Surfaces: Cure by moist curing with forms in place for full curing period.
- D. Surfaces Not in Contact with Forms:
 1. Initial Curing: Start as soon as free water has disappeared and before surface is dry. Keep continuously moist for not less than three days by water ponding, water-saturated sand, water-fog spray, or saturated burlap.
 - a. Ponding: Maintain 100 percent coverage of water over floor slab areas, continuously for 4 days.
 - b. Spraying: Spray water over floor slab areas and maintain wet.

- c. Saturated Burlap: Saturate burlap-polyethylene and place burlap-side down over floor slab areas, lapping ends and sides; maintain in place.
2. Final Curing: Begin after initial curing but before surface is dry.
 - a. Moisture-Retaining Sheet: Lap strips not less than 3 inches and seal with waterproof tape or adhesive; secure at edges.
 - b. Curing Compound: Apply in two coats at right angles, using application rate recommended by manufacturer.

3.07 FIELD QUALITY CONTROL

- A. Contractor to engage an independent testing agency will perform field quality control tests.
- B. Provide free access to concrete operations at project site and cooperate with appointed firm.
- C. Submit proposed mix design of each class of concrete to inspection and testing firm for review prior to commencement of concrete operations.
- D. Tests of concrete and concrete materials may be performed at any time to ensure compliance with specified requirements.
- E. Concrete Tests: Testing of composite samples of fresh concrete obtained according to ASTM C 172.
- F. Compressive Strength Tests: ASTM C39/C39M, for each test, mold and cure four concrete test cylinders. Obtain test samples for every 50 cubic yards or less of each class of concrete placed per day.
- G. Take one additional test cylinder during cold weather concreting, cured on job site under same conditions as concrete it represents.
- H. Perform one slump test for each set of test cylinders taken, following procedures of ASTM C143/C143M.
- I. Perform one air content test for each set of test cylinders taken following procedures of ASTM C231 or ASTM C173.

3.08 DEFECTIVE CONCRETE

- A. Test Results: The testing agency shall report test results in writing to Engineer and Contractor within 24 hours of test.
- B. Defective Concrete: Concrete not complying with required lines, details, dimensions, tolerances or specified requirements.
- C. Repair or replacement of defective concrete will be determined by the Engineer. The cost of additional testing shall be borne by Contractor when defective concrete is identified.

- D. Do not patch, fill, touch-up, repair, or replace exposed concrete except upon express direction of Engineer for each individual area.
- E. Patching: Repair defective areas and fill form-tie holes and similar defects in accordance with Chapter 9 of ACI 301. Where, in the opinion of the Engineer, surface defects such as honeycomb occur, repair the defective areas as directed by the Engineer. Mix patching concrete of the same materials and mixture as original concrete, except without coarse aggregate.

3.09 PROTECTION

- A. Do not permit traffic over unprotected concrete floor surface until fully cured.

END OF SECTION

**SECTION 05 5213
PIPE AND TUBE RAILINGS**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Stair railings and guardrails.

1.02 RELATED REQUIREMENTS

- A. Section 03 3000 - Cast-in-Place Concrete: Placement of anchors in concrete.

1.03 REFERENCE STANDARDS

- A. AISC 201 - AISC Certification Program for Structural Steel Fabricators, Standard for Steel Building Structures; 2006.
- B. ASTM A53/A53M - Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless; 2022.
- C. ASTM A123/A123M - Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products; 2017.
- D. ASTM A780/A780M - Standard Practice for Repair of Damaged and Uncoated Areas of Hot-Dip Galvanized Coatings; 2020.
- E. ASTM E935 - Standard Test Methods for Performance of Permanent Metal Railing Systems and Rails for Buildings; 2021.
- F. AWS A2.4 - Standard Symbols for Welding, Brazing, and Nondestructive Examination; 2020.
- G. AWS B2.1/B2.1M - Specification for Welding Procedure and Performance Qualification; 2021.
- H. AWS D1.1/D1.1M - Structural Welding Code - Steel; 2020, with Errata (2023).
- I. IAS AC172 - Accreditation Criteria for Fabricator Inspection Programs for Structural Steel AC172; 2019.

1.04 SUBMITTALS

- A. Shop Drawings: Indicate profiles, sizes, connection attachments, anchorage, size and type of fasteners, and accessories.
 - 1. Indicate welded connections using standard AWS A2.4 welding symbols. Indicate net weld lengths.
 - 2. Include the design engineer's seal and signature on each sheet of shop drawings.
- B. Provide detailed shop fabrication and erection drawings to include connections, fittings, complete bill of materials, finishes, etc.

- C. Product Data - Provide single-page catalog cut sheets on all manufactured items.
- D. Welders' Qualification Statement: Welders' certificates in accordance with AWS B2.1/B2.1M and dated within the previous 12 months.
- E. Fabricator's Qualification Statement.

1.05 QUALITY ASSURANCE

- A. Structural Designer Qualifications: Professional Structural Engineer experienced in design of this work and licensed in New York, or personnel under direct supervision of such an engineer.
- B. Welder Qualifications: Welding processes and welding operators qualified within previous 12 months.
- C. Fabricator Qualifications:
 - 1. A qualified steel fabricator that is certified by the American Institute for Steel Construction (AISC) under AISC 201.
 - 2. A qualified steel fabricator that is accredited by the International Accreditation Service (IAS) Fabricator Inspection Program for Structural Steel in accordance with IAS AC172.
 - 3. A company specializing in manufacturing products specified in this section, with not less than ten years of documented experience.

PART 2 PRODUCTS

2.01 RAILINGS - GENERAL REQUIREMENTS

- A. Design, fabricate, and test railing assemblies in accordance with the most stringent requirements of applicable local code.
- B. Distributed Loads: Design railing assembly, wall rails, and attachments to resist distributed force of 50 pounds per linear foot applied to the top of the assembly and in any direction, without damage or permanent set. Test in accordance with ASTM E935
- C. Concentrated Loads: Design railing assembly, wall rails, and attachments to resist a concentrated force of 200 pounds applied at any point on the top of the assembly and in any direction, without damage or permanent set. Test in accordance with ASTM E935
- D. Dimensions: See drawings for configurations and heights.
- E. Provide anchors and other components as required to attach to structure, made of same materials as railing components unless otherwise indicated.
 - 1. For anchorage to concrete, provide inserts to be cast into concrete.
- F. Provide welding fittings to join lengths, seal open ends, and conceal exposed mounting bolts and nuts, including but not limited to elbows, T-shapes, splice connectors, flanges, escutcheons,

and wall brackets.

- G. Welded and Brazed Joints: Make visible joints butt tight, flush, and hairline; use methods that avoid discoloration and damage of finish; grind smooth, polish, and restore to required finish.
 - 1. Ease exposed edges to a small uniform radius.
 - 2. Welded Joints:
 - a. Carbon Steel: Perform welding in accordance with AWS D1.1/D1.1M.

2.02 STEEL RAILING SYSTEM

- A. Steel Pipe: ASTM A53/A53M Grade B Schedule 40.
- B. Welding Fittings: Factory- or shop-welded from matching pipe or tube; seams continuously welded; joints and seams ground smooth.
- C. Straight Splice Connectors: Steel welding collars and welding collars.
- D. Galvanizing: In accordance with requirements of ASTM A123/A123M.
 - 1. Touch-Up Primer for Galvanized Surfaces: SSPC-Paint 20 Type I - Inorganic.

2.03 FABRICATION

- A. Fabricate steel railing with jointed pieces sealed by continuous welds.
 - 1. Grind exposed joints flush and smooth with adjacent finish surface. Make exposed joints butt tight, flush, and hairline. Ease exposed edges to small uniform radius.
 - 2. Clean, straight, sharply defined profiles with smooth surfaces of uniform color, free from defects. Weld on unexposed side in order to prevent pitting or discoloration. Finish to be free from scratches, "leave-off marks," or other surface blemishes.
- B. Fit and shop assemble components in largest practical sizes for delivery to site.
- C. Fabricate components with joints tightly fitted and secured.
- D. Supply components required for anchorage of fabrications. Fabricate related components of same material and finish as fabrication.
- E. Make exposed joints butt tight, flush, and hairline. Ease exposed edges to small uniform radius.
- F. Accurately form components to suit stairs, landings, and building structure. Terminate stair handrails as indicated.
- G. All railings shall be protected from entrapped water and from temperature-induced stresses. The railing manufacturer shall provide weep holes and expansion joints at 20 foot intervals.
- H. Welded Joints:

1. Exterior Components: Continuously seal joined pieces by continuous welds. Drill condensate drainage holes at bottom of members at locations that will not encourage water intrusion.
 2. Interior Components: Continuously seal joined pieces by continuous welds.
 3. Grind exposed joints flush and smooth with adjacent finish surface. Make exposed joints butt tight, flush, and hairline. Ease exposed edges to small uniform radius.
- I. Weld connections that cannot be shop welded due to size limitations.
1. Weld in accordance with AWS D1.1/D1.1M.
 2. Match shop welding and bolting.
 3. Clean welds, bolted connections, and abraded areas.
 4. Touch up shop primer and factory-applied finishes.
 5. Repair galvanizing with galvanizing repair paint per ASTM A780/A780M.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that field conditions are acceptable and are ready to receive work.

3.02 PREPARATION

- A. Supply items required to be cast into concrete or embedded in masonry with setting templates, for installation as work of other sections.

3.03 INSTALLATION

- A. Install in accordance with manufacturer's instructions.
- B. Install components plumb and level, accurately fitted, free from distortion or defects, with tight joints.
- C. Anchor railings securely to structure.

3.04 TOLERANCES

- A. Maximum Variation From Plumb: 1/4 inch per floor level, non-cumulative.
- B. Maximum Offset From True Alignment: 1/4 inch.
- C. Maximum Out-of-Position: 1/4 inch.

END OF SECTION

**SECTION 31 1000
SITE CLEARING**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Clearing and protection of vegetation.
- B. Removal of existing debris.
- C. Protecting existing grass to remain.
- D. Removing existing grass.
- E. Clearing and Grubbing.
- F. Tree Removal.
- G. Stripping and stockpiling topsoil.
- H. Removing above- and below-grade site improvements.
- I. Disconnecting, capping or sealing and removing site utilities or abandoning site utilities in place.
- J. Temporary erosion and sedimentation control.

1.02 RELATED REQUIREMENTS

- A. Section 31 2200 - Grading: Topsoil removal.
- B. Section 31 2323 - Fill: Fill material for filling holes, pits, and excavations generated as a result of removal operations.

1.03 DEFINITIONS

- A. Subsoil: Soil beneath the level of subgrade; soil beneath the topsoil layers of a naturally occurring soil profile, typified by less than 1 percent organic matter and few soil organisms.
- B. Surface Soil: Soil that is present at the top layer of the existing soil profile. In undisturbed areas, surface soil is typically called "topsoil," but in disturbed areas such as urban environments, the surface soil can be subsoil.
- C. Topsoil: Top layer of the soil profile consisting of existing native surface topsoil or existing in-place surface soil; the zone where plant roots grow.
- D. Vegetation: Trees, shrubs, groundcovers, grass, and other plants.
- E. Tree-Protection Zone: Area surrounding individual trees or groups of trees to be protected during construction and indicated on Drawings.

1.04 MATERIAL OWNERSHIP

- A. Except for materials indicated to be stockpiled or otherwise remain Owner's property, cleared materials shall become Contractor's property and shall be removed from Project site.

1.05 PROJECT CONDITIONS

- A. Traffic: Minimize interference with adjoining roads, streets, walks, and other adjacent occupied or used facilities during site-clearing operations.
 - 1. Do not close or obstruct streets, walks, or other adjacent occupied or used facilities without permission from Owner and authorities having jurisdiction.
 - 2. Provide alternate routes around closed or obstructed trafficways if required by Owner or authorities having jurisdiction.
- B. Salvageable Improvements: Carefully remove items indicated to be salvaged and store on Owner's premises.
- C. Utility Locator Service: Notify UDig NY to obtain an excavation permit for area where Project is located before site clearing.
- D. Do not commence site clearing operations until temporary erosion- and sedimentation-control and plant-protection measures are in place.
- E. The following practices are prohibited within tree protection zones:
 - 1. Storage of construction materials, debris, or excavated material.
 - 2. Parking vehicles or equipment.
 - 3. Foot traffic.
 - 4. Erection of sheds or structures.
 - 5. Impoundment of water.
 - 6. Excavation or other digging unless otherwise indicated.
 - 7. Attachment of signs to or wrapping materials around trees or plants unless otherwise indicated.
- F. Do not direct vehicle or equipment exhaust towards tree protection zones.
- G. Prohibit heat sources, flames, ignition sources, and smoking within or near tree protection zones.

PART 2 PRODUCTS

2.01 MATERIALS

- A. Fill Material: As specified in Section 31 2200 - Grading

PART 3 EXECUTION

3.01 PREPARATION

- A. Protect and maintain benchmarks and survey control points from disturbance during construction.
- B. The Contractor shall be solely responsible for locating all underground utilities prior to the commencement of work. Locations of existing utilities on the site plan are not warranted to show all existing utilities under or above ground. Existing utilities indicated on the site plan are shown only for the convenience of the owner's representatives. It shall be expressly understood that the owner will not in any way be held responsible for conclusions or interpretations drawn there from by contractor. The Contractor shall therefore be held solely liable for any damage that occurs on or off site in this respect.
- C. Locate and clearly flag trees and vegetation to remain or to be relocated. Protect existing trees, group of trees, and other vegetation designated by the Engineer or shown on the drawings to remain in place against unnecessary cutting, breaking, or skinning of roots, skinning and bruising of bark, smothering of trees by stockpiling construction materials or excavated materials within the drip line, excess foot or vehicular traffic, or parking of vehicles within the drip line.
- D. Protect existing site improvements to remain from damage during construction.
 - 1. Restore damaged improvements to their original condition, as acceptable to Owner.

3.02 TEMPORARY EROSION AND SEDIMENTATION CONTROL

- A. Provide temporary erosion and sedimentation control measures to prevent soil erosion and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways, according to a sediment and erosion control plan. Utilize erosion and sediment control measures installed in accordance with NYS DEC Standards and Specifications for Erosion and Sediment Control dated November 2016.
- B. The operator shall initiate stabilization measures as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, but in no case more than 14 days after the construction activity in that portion of the site have temporarily or permanently ceased. This requirement does not apply in the following instances:
 - 1. Where the initiation of stabilization measures by the 14th day after construction activity temporarily or permanently ceased is precluded by snow cover or frozen ground conditions, stabilization measures shall be initiated as soon as practicable;
 - 2. General:

- a. The Contractor shall take sufficient precautions during construction to minimize the run-off of polluting substances such as silt, clay, fuels, oils, bitumens, calcium chloride, or other polluting materials harmful to humans, fish, or other life, into the water supplies and surface waters. Special precautions shall be taken in the use of construction equipment to prevent operations which promote erosion.
 - b. Measures of control of erosion must be adequate to assure that turbidity in the receiving water will not be increased more than the limit set by the State or other controlling body.
 - c. Topsoiling and seeding or mulching of cross country areas shall take place as soon as practicable but shall not be contrary to the requirements specified.
 - d. Burning of combustible cleared and grubbed materials and debris will not be permitted on the project site.
3. With regard to erosion and siltation control, the sequence of activities will generally take place as follows:
- a. Prior to grubbing or topsoil stripping, place all stone check dams, silt fence and construction fence required.
 - b. Throughout excavation, filling and grading operations, the Contractor shall take other necessary precautions, including installation of temporary drainage swales, siltation sumps, filtration dams, stone check dams, siltation fences and temporary pipe to direct and control drainage from disturbed areas on the site so that erosion and siltation is minimal. In addition, no erosion or discharge of silt or larger particles from erosion control measures, surface runoff, or construction dewatering shall occur onto adjacent properties, or into sewers or drains.
 - c. Construction of dewatering sumps and connecting dewatering trenches as necessary for construction operations. These sumps and trenches shall be of size, configuration and elevation as necessary to draw groundwater below the excavation subgrade levels. Water from dewatering operations shall be discharged into silt sumps and through filtration dams to insure that no silt laden water or larger particles shall be discharged into wetland areas to remain undisturbed, or onto adjacent properties. Special siltation control details may have to be submitted to the Engineer for approval.
 - d. Damaged or loose siltation fence shall be replaced as necessary to maintain their function of controlling erosion siltation. Damaged or broken down stone check dams and filtration dams shall be replaced immediately.
 - e. Remove any accumulation of silt or soil build-up behind stone check dams and filtration dams, as it occurs. Remove accumulations of silt and soil build-up from the siltation sumps and silt trap, if any, when it is approximately the capacity has been reduced by 50%.

- f. Remove all erosion control measures, including silt fence, siltation sumps and stone check dams only when construction is completed, upland surfaces are stabilized and the piped drainage system is fully operational.
4. If the Contractor anticipates deviations from the above procedures, he shall notify the Engineer or his designated representative as soon as possible. No substantial deviations from the above sequence of activities shall take place without the Engineer's approval.

3.03 TREE PROTECTION

- A. Erect and maintain temporary fencing around tree protection zones before starting site clearing. Remove fence when construction is complete.
- B. Do not excavate within tree protection zones, unless otherwise indicated.
- C. Repair or replace trees and vegetation indicated to remain that are damaged by construction operations, in a manner approved by Engineer.

3.04 EXISTING UTILITIES

- A. Locate, identify, disconnect, and seal or cap utilities indicated to be removed or abandoned in place.
 1. Arrange with utility companies to shut off indicated utilities.
 2. Owner will arrange to shut off indicated utilities when requested by Contractor.
- B. Locate, identify, and disconnect utilities indicated to be abandoned in place.
- C. Interrupting Existing Utilities: Do not interrupt utilities serving facilities occupied by Owner or others, unless permitted under the following conditions and then only after arranging to provide temporary utility services according to requirements indicated:
 1. Notify Owner not less than two days in advance of proposed utility interruptions.
 2. Do not proceed with utility interruptions without Owner written permission.
- D. Excavate for and remove underground utilities indicated to be removed.

3.05 CLEARING AND GRUBBING

- A. Remove shrubs, grass, weeds and other vegetation, improvements or obstructions that interfere with the installation of new construction. Also remove such items elsewhere in the site or premises as specifically indicated by the Engineer. Removal includes new and old stumps and their roots and any existing above-ground improvements.
- B. Clearing of trees shall consist of the felling, trimming, and cutting of trees into sections and the satisfactory disposal of the trees and other vegetation designated for removal, including downed timber, snags, brush, and rubbish occurring within the areas to be cleared. Trees designated to be

left standing within the cleared areas shall be trimmed of dead branches 1-1/2 inches or more in diameter and shall be trimmed of all branches to the heights indicated or directed. Limbs and branches to be trimmed shall be neatly cut close to the bole of the tree or main branches. Cuts more than 1-1/2 inches in diameter shall be painted with an approved tree-wound paint.

- C. Conduct clearing operations to prevent falling trees from damaging standing trees or adjacent structures.
- D. Clear areas required for access to site and execution of Work.
- E. Remove roots to a depth of 18 inches.
- F. Completely remove stumps, roots, organic materials and other debris in all excavations, embankment, and slope areas in which earthwork and grading operations will occur. Remove only trees as shown on the Contract Drawings.

3.06 TOPSOIL STRIPPING

- A. Prior to beginning earthwork excavation within the project site, strip all topsoil to its normal depth.
- B. Strip topsoil to whatever depths are encountered in a manner to prevent intermingling with underlying subsoil or other waste materials.
- C. Where trees are indicated to be left standing, stop topsoil stripping a sufficient distance from these trees to prevent damage to the main root system.
- D. Stockpile topsoil materials away from edge of excavations without intermixing with subsoil. Grade and shape stockpiles to drain surface water. Cover to prevent windblown dust.

3.07 SITE IMPROVEMENTS

- A. Remove existing above- and below-grade improvements as indicated and necessary to facilitate construction.
- B. Remove slabs, paving, curbs, gutters, and aggregate base as indicated.
 - 1. Unless existing full-depth joints coincide with line of demolition, neatly saw-cut along line of existing pavement to remain before removing adjacent existing pavement. Saw-cut faces vertically.
 - 2. Paint cut ends of steel reinforcement in concrete to remain with two coats of antirust coating, following coating manufacturer's written instructions. Keep paint off surfaces that will remain exposed.

3.08 DISPOSAL OF SURPLUS AND WASTE MATERIALS

- A. Remove surplus soil material, unsuitable topsoil, obstructions, demolished materials, and waste materials including trash and debris, and legally dispose of them off Owner's property.

- B. Burning tree, shrub, and other vegetation waste is not permitted on Owner's property.
- C. Separate recyclable materials produced during site clearing from other nonrecyclable materials. Store or stockpile without intermixing with other materials, and transport them to recycling facilities. Do not interfere with other Project work.

3.09 SITE CLEARING

- A. Minimize production of dust due to clearing operations; do not use water if that will result in ice, flooding, sedimentation of public waterways or storm sewers, or other pollution.

3.10 EXISTING UTILITIES AND BUILT ELEMENTS

- A. Coordinate work with utility companies; notify before starting work and comply with their requirements; obtain required permits.
- B. Protect existing utilities to remain from damage.
- C. Do not disrupt public utilities without permit from authority having jurisdiction.
- D. Protect existing structures and other elements that are not to be removed.

3.11 VEGETATION

- A. Scope: Remove trees, shrubs, brush, and stumps from project work area.
- B. Do not remove or damage vegetation beyond the limits indicated on drawings.
- C. Install substantial, tree protection fencing as indicated to prevent inadvertent damage to vegetation to remain.
- D. Vegetation Removed: Do not burn, bury, landfill, or leave on site, except as indicated.
 - 1. Chip, grind, crush, or shred vegetation for mulching, composting, or other purposes; preference should be given to on-site uses.
 - 2. Trees: Sell if marketable; if not, treat as specified for other vegetation removed; remove stumps and roots to depth of 18 inches.
 - 3. Sod: Re-use on site if possible; otherwise sell if marketable, and if not, treat as specified for other vegetation removed.
- E. Restoration: If vegetation outside removal limits or within specified protective fences is damaged or destroyed due to subsequent construction operations, replace at no cost to Owner.

3.12 DEBRIS

- A. Remove debris, junk, and trash from site.
- B. Leave site in clean condition, ready for subsequent work.

- C. Clean up spillage and wind-blown debris from public and private lands.

END OF SECTION

**SECTION 31 2200
GRADING**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Removal of topsoil.
- B. Rough grading the site.
- C. Replacement of topsoil and finish grading.

1.02 RELATED REQUIREMENTS

- A. Section 31 2316 - Excavation.
- B. Section 31 2316.26 - Rock Removal.
- C. Section 31 2323 - Fill: Filling and compaction.
- D. Section 32 9219 - Seeding: Finish ground cover.
- E. Section 32 9300 - Plants: Trees

1.03 SUBMITTALS

- A. Project Record Documents: Accurately record actual locations of utilities remaining by horizontal dimensions, elevations or inverts, and slope gradients.

1.04 QUALITY ASSURANCE

- A. Perform Work in accordance with City of Watertown, Public Works Department standards.

PART 2 PRODUCTS

2.01 MATERIALS

- A. Topsoil: See Section 32 9219 - Seeding:

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that survey bench mark and intended elevations for the Work are as indicated.
- B. Verify the absence of standing or ponding water.

3.02 PREPARATION

- A. Identify required lines, levels, contours, and datum.
- B. Stake and flag locations of known utilities.

- C. Locate, identify, and protect from damage above- and below-grade utilities to remain.
- D. Provide temporary means and methods to remove all standing or ponding water from areas prior to grading.
- E. Protect site features to remain, including but not limited to bench marks, survey control points, existing structures, fences, sidewalks, paving, and curbs, from damage by grading equipment and vehicular traffic.
- F. Protect trees to remain by providing substantial fencing around entire tree at the outer tips of its branches; no grading is to be performed inside this line.
- G. Protect plants, lawns, and other features to remain as a portion of final landscaping.

3.03 ROUGH GRADING

- A. Remove topsoil from areas to be further excavated, re-landscaped, or re-graded, without mixing with foreign materials.
- B. Do not remove topsoil when wet.
- C. Remove subsoil from areas to be further excavated, re-landscaped, or re-graded.
- D. Do not remove wet subsoil , unless it is subsequently processed to obtain optimum moisture content.
- E. When excavating through roots, perform work by hand and cut roots with sharp axe.
- F. Stability: Replace damaged or displaced subsoil to same requirements as for specified fill.
- G. Remove and replace soils deemed unsuitable by classification and which are excessively moist due to lack surface water control.

3.04 SOIL REMOVAL

- A. Stockpile excavated topsoil on-site to be reused.
- B. Stockpile excavated subsoil on-site to be reused.
- C. Remove excess soil from site.

3.05 FINISH GRADING

- A. Before Finish Grading:
 - 1. Verify trench backfilling have been inspected.
 - 2. Verify subgrade has been contoured and compacted.
- B. Remove debris, roots, branches, stones, in excess of 1/2 inch in size. Remove soil contaminated with petroleum products.

- C. Where topsoil is to be placed, scarify surface to depth of 3 inches.
- D. Place topsoil in areas where seeding and planting are indicated.
- E. Place topsoil in areas indicated.
- F. Place topsoil where required to level finish grade.
- G. Place topsoil to thickness as indicated.
- H. Place topsoil to nominal depth of 4 inches.
- I. Place topsoil to the following compacted thicknesses:
 - 1. Areas to be Seeded with Grass: 4 inches.
 - 2. Tree Planting: 24 inches.
- J. Place topsoil during dry weather.
- K. Remove roots, weeds, rocks, and foreign material while spreading.
- L. Near plants spread topsoil manually to prevent damage.
- M. Fine grade topsoil to eliminate uneven areas and low spots. Maintain profiles and contour of subgrade.
- N. Lightly compact placed topsoil.
- O. Maintain stability of topsoil during inclement weather. Replace topsoil in areas where surface water has eroded thickness below specifications.

3.06 TOLERANCES

- A. Top Surface of Subgrade: Plus or minus 0.10 foot (1-3/16 inches) from required elevation.
- B. Top Surface of Finish Grade: Plus or minus 0.04 foot (1/2 inch).

3.07 REPAIR AND RESTORATION

- A. Existing Facilities, Utilities, and Site Features to Remain: If damaged due to this work, repair or replace to original condition.
- B. Trees to Remain: If damaged due to this work, trim broken branches and repair bark wounds; if root damage has occurred, obtain instructions from Engineer as to remedy.
- C. Other Existing Vegetation to Remain: If damaged due to this work, replace with vegetation of equivalent species and size.

3.08 FIELD QUALITY CONTROL

- A. See Section 31 2323 for compaction density testing.

3.09 PROTECTION

- A. Protecting Graded Areas: Protect newly graded areas from traffic, freezing, and erosion. Keep free of trash and debris.
- B. Repair and reestablish grades to specified tolerances where completed or partially completed surfaces become eroded, rutted, settled, or where they lose compaction due to subsequent construction operations or weather conditions.
- C. Where settling occurs before Project correction period elapses, remove finished surfacing, backfill with additional soil material, compact, and reconstruct surfacing.
 - 1. Restore appearance, quality, and condition of finished surfacing to match adjacent work, and eliminate evidence of restoration to greatest extent possible.

3.10 CLEANING

- A. Remove unused stockpiled topsoil and subsoil. Grade stockpile area to prevent standing water.
- B. Leave site clean and raked, ready to receive landscaping.

END OF SECTION

**SECTION 31 2316
EXCAVATION**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Trenching for utilities outside the building to utility main connections.
- B. Trenching for utilities, building services and to utility main connections.
- C. Temporary excavation support and protection systems.

1.02 RELATED REQUIREMENTS

- A. Section 31 1000 - Site Clearing: Vegetation and existing debris removal; topsoil removal.
- B. Section 31 2200 - Grading: Grading.
- C. Section 31 2323 - Fill: Fill materials, backfilling, and compacting.

1.03 REFERENCE STANDARDS

- A. 29 CFR 1926 - Safety and Health Regulations for Construction; Current Edition.

1.04 SUBMITTALS

- A. Field Quality Control Submittals: Document visual inspection of load-bearing excavated surfaces.

1.05 PROJECT CONDITIONS

- A. Existing Utilities: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted in writing by Engineer and then only after arranging to provide temporary utility services according to requirements indicated.
- B. Traffic: Minimize interference with adjoining roads, streets, walks, and other adjacent occupied or used facilities during earth-moving operations.
 - 1. Do not close or obstruct streets, walks, or other adjacent occupied or used facilities without permission from Owner and authorities having jurisdiction.
 - 2. Provide alternate routes around closed or obstructed traffic ways if required by Owner or authorities having jurisdiction.
- C. Utility Locator Service: Notify UDig NY to obtain an excavation permit for area where Project is located before beginning earth-moving operations.
- D. Improvements on Adjoining Property:
 - 1. Do not proceed with work on adjoining property until directed by Owner.

- E. Do not commence earth-moving operations until temporary site fencing and erosion and sedimentation-control measures, specified in Section 31 1000 “Site Clearing”, are in place.
- F. The following practices are prohibited within protection zones:
 - 1. Storage of construction materials, debris, or excavated material.
 - 2. Parking vehicles or equipment.
 - 3. Foot traffic.
 - 4. Erection of sheds or structures.
 - 5. Impoundment of water.
 - 6. Excavation or other digging unless otherwise indicated.
 - 7. Attachment of signs to or wrapping materials around trees or plants unless otherwise indicated.
- G. Do not direct vehicle or equipment exhaust towards protection zones.
- H. Prohibit heat sources, flames, ignition sources, and smoking within or near protection zones.

1.06 DEFINITIONS

- A. Backfill: Soil material or controlled low-strength material used to fill an excavation.
 - 1. Initial Backfill: Backfill placed beside and over pipe in a trench, including haunches to support sides of pipe.
 - 2. Final Backfill: Backfill placed over initial backfill to fill a trench.
- B. Base Course: Aggregate layer placed between the subbase course and hot-mix asphalt paving.
- C. Bedding Course: Aggregate layer placed over the excavated subgrade in a trench before laying pipe.
- D. Borrow Soil: Satisfactory soil imported from off-site for use as fill or backfill.
- E. Drainage Course: Aggregate layer of graded stone utilized under and around structures to promote collection and drainage of groundwater.
- F. Excavation: Removal of material encountered above subgrade elevations and to lines and dimensions indicated.
 - 1. Authorized Additional Excavation: Excavation below subgrade elevations or beyond indicated lines and dimensions as directed by Engineer. Authorized additional excavation and replacement material will be paid for according to Contract provisions for changes in the Work.

2. Unauthorized Excavation: Excavation below subgrade elevations or beyond indicated lines and dimensions without direction by Engineer. Unauthorized excavation, as well as remedial work directed by Engineer, shall be without additional compensation.
- G. Fill: Soil materials used to raise existing grades.
- H. Rock: Rock material in beds, ledges, unstratified masses, conglomerate deposits, and boulders of rock material that exceed 1 cu. yd. (0.76 cu. m) for bulk excavation or 3/4 cu. yd. (0.57 cu. m) for footing, trench, and pit excavation that cannot be removed by rock-excavating equipment equivalent to the following in size and performance ratings, without systematic drilling, ram hammering, ripping, or blasting, when permitted:
1. Equipment for Footing, Trench, and Pit Excavation: Late-model, track-mounted hydraulic excavator; equipped with a 42-inch- (1065-mm-) maximum-width, short-tip-radius rock bucket; rated at not less than 138-hp (103-kW) flywheel power with bucket-curling force of not less than 28,700 lbf (128 kN) and stick-crowd force of not less than 18,400 lbf (82 kN) with extra-long reach boom.
 2. Equipment for Bulk Excavation: Late-model, track-mounted loader; rated at not less than 230-hp (172-kW) flywheel power and developing a minimum of 47,992-lbf (213.3-kN) breakout force with a general-purpose bare bucket.
- I. Rock: Rock material in beds, ledges, unstratified masses, conglomerate deposits, and boulders of rock material 3/4 cu. yd. (0.57 cu. m) or more in volume that exceed a standard penetration resistance of 100 blows/2 inches (97 blows/50 mm) when tested by a geotechnical testing agency, according to ASTM D 1586.
- J. Structures: Buildings, footings, foundations, retaining walls, slabs, tanks, curbs, mechanical and electrical appurtenances, or other man-made stationary features constructed above or below the ground surface.
- K. Subbase Course: Aggregate layer placed between the subgrade and base course for hot-mix asphalt pavement, or aggregate layer placed between the subgrade and a cement concrete pavement or a cement concrete or hot-mix asphalt walk.
- L. Subgrade: Uppermost surface of an excavation or the top surface of a fill or backfill immediately below subbase, drainage fill, drainage course, or topsoil materials.
- M. Tree Protection Zone: An area where construction activities are prohibited or restricted to prevent injury to preserved trees, especially during pre-construction and construction, and includes the Critical Root Zone and/or beyond.
- N. Utilities: On-site underground pipes, conduits, ducts, and cables as well as underground services within buildings.

PART 2 PRODUCTS

2.01 MATERIALS

A. Bedding and Fill to Correct Over-Excavation:

1. See Section 31 2323 for bedding and corrective fill materials at general excavations.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that survey bench mark and intended elevations for the work are as indicated.

3.02 PREPARATION

- A. Identify required lines, levels, contours, and datum locations.
- B. Locate, identify, and protect utilities that remain and protect from damage.
- C. Protect bench marks, survey control points, existing structures, fences, sidewalks, paving, and curbs from excavating equipment and vehicular traffic.
- D. Protect plants, lawns, rock outcroppings, and other features to remain.
- E. Grade top perimeter of excavation to prevent surface water from draining into excavation. Provide temporary means and methods, as required, to maintain surface water diversion until no longer needed, or as directed by the Engineer.

3.03 TEMPORARY EXCAVATION SUPPORT AND PROTECTION

- A. Excavation Safety: Comply with OSHA's Excavation Standard, 29 CFR 1926, Subpart P.
1. Depending upon excavation depth, time that excavation is open, soil classification, configuration and slope of excavation sidewalls, design and provide an excavation support and protection system that meets the requirements of 29 CFR 1926, Subpart P:

3.04 DEWATERING

- A. Prevent surface water and ground water from entering excavations, from ponding on prepared subgrades, and from flooding Project site and surrounding area.
- B. Protect subgrades from softening, undermining, washout, and damage by rain or water accumulation.
1. Reroute surface water runoff away from excavated areas. Do not allow water to accumulate in excavations. Do not use excavated trenches as temporary drainage ditches.

3.05 EXCAVATING

- A. Excavate to accommodate new structures and construction operations.
1. Excavate to the specified elevations.

2. Excavate to the length and width required to safely install, adjust, and remove any forms, bracing, or supports necessary for the installation of the work.
- B. Notify Engineer of unexpected subsurface conditions and discontinue affected Work in area until notified to resume work.
- C. Slope banks of excavations deeper than 3 feet to angle of repose or less until shored.
- D. Do not interfere with 45 degree bearing splay of foundations.
- E. Cut utility trenches wide enough to allow inspection of installed utilities.
- F. Hand trim excavations. Remove loose matter.
- G. Correct areas that are over-excavated and load-bearing surfaces that are disturbed; see Section 31 2323.
- H. Provide temporary means and methods, as required, to remove all water from excavations until directed by Engineer. Remove and replace soils deemed suitable by classification and which are excessively moist due to lack of dewatering or surface water control.
- I. Determine the prevailing groundwater level prior to excavation. If the proposed excavation extends less than 1 foot (305 mm) into the prevailing groundwater, control groundwater intrusion with perimeter drains routed to sump pumps, or as directed by the Engineer. If the proposed excavation extends more than 1 foot (305 mm) into the excavation, control groundwater intrusion with a comprehensive dewatering procedures, or as directed by the Engineer.
- J. Remove excavated material that is unsuitable for re-use from site.
- K. Remove excess excavated material from site.

3.06 SUBGRADE PREPARATION

- A. See Section 31 2323 for subgrade preparation at general excavations.

3.07 FILLING AND BACKFILLING

- A. Do not fill or backfill until all debris, water, unsatisfactory soil materials, obstructions, and deleterious materials have been removed from excavation.
- B. See Section 31 2323 for fill, backfill, and compaction requirements at general excavations.
- C. See Section 31 2200 for rough and fine grading.

3.08 EXCAVATION FOR WALKS AND PAVEMENTS

- A. Excavate surfaces under walks and pavements to indicated lines, cross sections, elevations, and subgrades.

3.09 EXCAVATION FOR UTILITY TRENCHES

- A. Excavate trenches to indicated gradients, lines, depths, and elevations.
- B. Excavate trenches to uniform widths to provide the following clearance on each side of pipe or conduit. Excavate trench walls vertically from trench bottom to 12 inches (300 mm) higher than top of pipe or conduit, unless otherwise indicated.
 - 1. Clearance: 6 inches (150 mm) each side of pipe or conduit.
- C. Trench Bottoms: Excavate and shape trench bottoms to provide uniform bearing and support of pipes and conduit. Shape subgrade to provide continuous support for bells, joints, and barrels of pipes and for joints, fittings, and bodies of conduits. Remove projecting stones and sharp objects along trench subgrade.
 - 1. Excavate trenches 6 inches (150 mm) deeper than elevation required.

3.10 UNAUTHORIZED EXCAVATION

- A. Fill unauthorized excavation under foundations or wall footings by extending bottom elevation of concrete foundation or footing to excavation bottom, without altering top elevation. Lean concrete fill, with 28-day compressive strength of 2500 psi (17.2 MPa), may be used when approved by Engineer.
 - 1. Fill unauthorized excavations under other construction or utility pipe as directed by Engineer.

3.11 STORAGE OF SOIL MATERIALS

- A. Stockpile borrow soil materials and excavated satisfactory soil materials without intermixing. Place, grade, and shape stockpiles to drain surface water. Cover or stabilize to prevent windblown dust.
 - 1. Stockpile soil materials away from edge of excavations. Do not store within drip line of remaining trees.

3.12 FIELD QUALITY CONTROL

- A. Provide for visual inspection of load-bearing excavated surfaces by Engineer before placement of foundations.

3.13 PROTECTION

- A. Divert surface flow from rains or water discharges from the excavation.
- B. Prevent displacement of banks and keep loose soil from falling into excavation; maintain soil stability.

- C. Protect open excavations from rainfall, runoff, freezing groundwater, or excessive drying so as to maintain foundation subgrade in satisfactory, undisturbed condition.
- D. Protect bottom of excavations and soil adjacent to and beneath foundation from freezing.
- E. Keep excavations free of standing water and completely free of water during concrete placement.

END OF SECTION

**SECTION 31 2316.26
ROCK REMOVAL**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Removal of identified and discovered rock during excavation.

1.02 RELATED REQUIREMENTS

- A. Section 31 2316 - Excavation: Excavation
- B. Section 31 2323 - Fill: Fill materials.

1.03 DEFINITIONS

- A. Rock: Rock material in beds, ledges, unstratified masses, conglomerate deposits, and boulders of rock material that exceed 1 cu. yd. (0.76 cu. m) for bulk excavation or 3/4 cu. yd. (0.57 cu. m) for footing, trench, and pit excavation that cannot be removed by rock-excavating equipment equivalent to the following in size and performance ratings, without systematic drilling, ram hammering, ripping, or blasting, when permitted:
 - 1. Equipment for Footing, Trench, and Pit Excavation: Late-model, track-mounted hydraulic excavator; equipped with a 42-inch- (1065-mm-) maximum-width, short-tip-radius rock bucket; rated at not less than 138-hp (103-kW) flywheel power with bucket-curling force of not less than 28,700 lbf (128 kN) and stick-crowd force of not less than 18,400 lbf (82 kN) with extra-long reach boom.
 - 2. Equipment for Bulk Excavation: Late-model, track-mounted loader; rated at not less than 230-hp (172-kW) flywheel power and developing a minimum of 47,992-lbf (213.3-kN) breakout force with a general-purpose bare bucket.
- B. Rock: Rock material in beds, ledges, unstratified masses, conglomerate deposits, and boulders of rock material 3/4 cu. yd. (0.57 cu. m) or more in volume that exceed a standard penetration resistance of 100 blows/2 inches (97 blows/50 mm) when tested by a geotechnical testing agency, according to ASTM D 1586

1.04 REGULATORY REQUIREMENTS

- A. Rock removal by mechanical and/or saw cutting shall conform to applicable State and/or Local regulatory requirements.

1.05 SUBMITTALS

- A. Shop Drawings: Indicate the proposed method of rock removal.
- B. Pre-excavation Photographs or Videotape: Show existing conditions of adjoining construction and site improvements, including finish surfaces that might be misconstrued as damage caused by mechanical rock removal operations. Submit before earth moving and rock removal begins.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify site conditions and note subsurface irregularities affecting work of this section.

3.02 PREPARATION

- A. Identify required lines, levels, contours, and datum.

3.03 ROCK REMOVAL

- A. Excavate and remove rock by mechanical methods only; use of explosives is prohibited.
- B. Mechanical Methods: Drill holes and utilize expansive tools to fracture rock.
- C. Rock Saw/Trencher.
- D. Hydro-Ram or Jack Hammer.
- E. Form level bearing at bottom of excavations.
- F. Remove shaled layers to provide sound and unshattered base for footings.
- G. In utility trenches, excavate to 6 inches below invert elevation of pipe and the greater of 24 inches wider than pipe diameter or 42 inches
- H. Remove excavated materials from site.
- I. Correct unauthorized rock removal in accordance with backfilling and compacting requirements of Section 31 2323.
- J. Correct unauthorized rock removal to directions of Engineer.

3.04 FIELD QUALITY CONTROL

- A. Record top of rock elevations and provide them to the owners representative.
- B. Confirm, in writing, that the Owners Representative is in agreement with the measurements for quantity of rock before any rock removal operations commence.

END OF SECTION

**SECTION 31 2319
DEWATERING AND DRAINAGE**

PART 1 GENERAL

1.01 SUMMARY

- A. Section includes construction dewatering.

1.02 RELATED REQUIREMENTS:

- A. Section 31 2200 - Grading
- B. Section 31 2316.13 - Trenching:

1.03 SCOPE OF WORK

- A. The Contractor shall prevent surface water and subsurface or groundwater from flowing into excavations or earthwork areas which would cause flooding of the project site and surrounding area, or softening or loosening of the soil at trench excavation or earthwork subgrade.
- B. The Contractor shall provide adequate and satisfactory dewatering and drainage of excavations and furnish all materials and equipment and do all incidental work required in conjunction with the furnishing, installing, and maintaining of same to permit proper installation of the structures, pipe and appurtenances. The Contractor may choose any satisfactory method he wishes, subject to the approval of the Engineer, for handling groundwater or surface water encountered in the work, provided they perform the dewatering required, and shall assume all responsibility for the adequacy of the methods, materials, and equipment employed. The Contractor shall bear the full cost of providing the dewatering at all times of the year, throughout the construction period, and no additional payment shall be made for this work. The Contractor shall take all precautions necessary to prevent loosening or softening up of the subgrade. In this regard, the Contractor shall at all times be prepared to alter his construction method or sequence. Dewatering and control of water shall be conducted as necessary to prevent seepage, groundwater flow and infiltration and runoff from it in any way undermining or otherwise damaging adjacent structures and utilities.
- C. Pumping equipment and devices to properly remove and dispose of all water entering the trenches and excavation for structures shall be provided. The grade shall be maintained dry until the structures (pipe, manholes, vaults, etc.) to be built thereon are completed. All dewatering required by pumping and drainage shall be performed without damage to the excavation, pipe trench, pavements, pipes, electrical conduits, other utilities and any other work or property. Existing or new sanitary sewers shall not be used to dispose of drainage. The Contractor's method of dewatering shall maintain the bottom excavation dry at all times.

1.04 SUBMITTAL

- A. Submit to the Engineer a plan describing the method and equipment to be used to dewater and drain site excavation.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

3.01 GENERAL

- A. Remove water from excavations to prevent softening of trench and structure subgrades and soil changes detrimental to the stability of subgrades, foundations, and excavations and keep them dry until the structures to be built thereon are completed.
- B. Do not allow water to accumulate in excavations. The Contractor shall, at all times during construction, provide ample means and devices with which to remove promptly and dispose properly of all water entering roadway, trench, and structure excavations and keep them dry until the structures to be built thereon are completed.
- C. Drainage shall be adequate. No pipe shall be laid in water. No masonry shall be laid in water, and no water shall be allowed to rise over any masonry for four days. In no event shall water be allowed to rise so as to set up unequal pressures in the structures until the concrete or mortar has set up at least 24 hours. The Contractor shall constantly guard against the possibility of floatation of pipe or structures after installation. He shall place adequate backfill promptly to prevent this occurrence, and his method of handling drainage and carrying on his operations shall always be adequate to prevent floatation.
- D. If the Contractor elects to use underdrains for handling the water in pipe trenches or around structure excavations, he shall furnish and install the pipe and screened gravel, graded from coarse to fine and shall furnish and install all sumps, pumping equipment, etc., to maintain the water level continuously at the required elevation.
- E. Provide temporary grading to facilitate dewatering and control of surface water.
- F. Monitor dewatering systems continuously.
- G. Promptly repair damages to adjacent facilities caused by dewatering.
- H. Protect and maintain temporary erosion and sediment controls during dewatering operations.

3.02 INSTALLATION

- A. Install dewatering system utilizing wells, well points, or similar methods complete with pump equipment, standby power and pumps, filter material gradation, valves, appurtenances, water disposal, and surface-water controls.
 - 1. Space well points or wells at intervals required to provide sufficient dewatering.
 - 2. Use filters or other means to prevent pumping of fine sands or silts from the subsurface.
- B. Before excavating below ground-water level, place system into operation to lower water to specified levels. Operate system continuously until drains, sewers, and structures have been constructed and fill materials have been placed or until dewatering is no longer required.

- C. Provide an adequate system to lower and control ground water to permit excavation, construction of structures, and placement of fill materials on dry subgrades. Install sufficient dewatering equipment to drain water-bearing strata above and below bottom of foundations, drains, sewers, and other excavations.
 - 1. Do not permit open-sump pumping that leads to loss of fines, soil piping, subgrade softening, and slope instability.
 - 2. Reduce hydrostatic head in water-bearing strata below subgrade elevations of foundations, drains, sewers and other excavations.
 - 3. Maintain piezometric water level a minimum of 24 inches (600 mm) below surface of excavation.
- D. Dispose of water removed by dewatering in a manner that avoids endangering public health, property, and portions of work under construction or completed. Dispose of water and sediment in a manner that avoids inconvenience to others. Provide sumps, sedimentation tanks, and other flow-control devices as required by authorities having jurisdiction.
- E. Provide standby equipment on site, installed and available for immediate operation, to maintain dewatering on continuous basis if any part of system becomes inadequate or fails. If dewatering requirements are not satisfied due to inadequacy or failure of dewatering system, restore damaged structures and foundation soils at no additional expense to Owner.
 - 1. Remove dewatering system from Project site on completion of dewatering. Plug or fill well holes with sand or cut off and cap wells a minimum of 36 inches (900 mm) below overlying construction.
- F. Damages: Promptly repair damages to adjacent facilities caused by dewatering operations.

3.03 FIELD QUALITY CONTROL

- A. Observation Wells: Provide, take measurements, and maintain at least the minimum number of observation wells or piezometers indicated; additional observation wells may be required by authorities having jurisdiction.
 - 1. Observe and record daily elevation of ground water and piezometric water levels in observation wells.
 - 2. Repair or replace, within 24 hours, observation wells that become inactive, damaged, or destroyed. In areas where observation wells are not functioning properly, suspend construction activities until reliable observations can be made. Add or remove water from observation-well risers to demonstrate that observation wells are functioning properly.
 - 3. Fill observation wells, remove piezometers, and fill holes when dewatering is completed.
- B. Provide continual observation to ensure that subsurface soils are not being removed by the dewatering operation.

END OF SECTION 312319

**SECTION 31 2323
FILL**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Backfilling and compacting for utilities outside the building to utility main connections.

1.02 RELATED REQUIREMENTS

- A. Section 31 2200 - Grading: Site grading.
- B. Section 31 2316 - Excavation: Removal and handling of soil to be re-used.

1.03 DEFINITIONS

- A. Finish Grade Elevations: Indicated on drawings.
- B. Subgrade Elevations: Indicated on drawings.

1.04 REFERENCE STANDARDS

- A. AASHTO M 288 - Standard Specification for Geosynthetic Specification for Highway Applications; 2022.
- B. AASHTO T 180 - Standard Method of Test for Moisture-Density Relations of Soils Using a 4.54-kg (10-lb) Rammer and a 457-mm (18-in.) Drop; 2022, with Errata .
- C. ASTM C136/C136M - Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates; 2019.
- D. ASTM D2321 - Standard Practice for Underground Installation of Thermoplastic Pipe for Sewers and Other Gravity-Flow Applications; 2020.
- E. ASTM D2940/D2940M - Standard Specification for Graded Aggregate Material for Bases or Subbases for Highways or Airports; 2020.
- F. ASTM D3017 - Standard Test Method for Water Content of Soil and Rock in Place by Nuclear Methods (Shallow Depth); 2005.
- G. ASTM D3740 - Standard Practice for Minimum Requirements for Agencies Engaged in Testing and/or Inspection of Soil and Rock as Used in Engineering Design and Construction; 2023.
- H. ASTM D448 - Standard Classification for Sizes of Aggregate for Road and Bridge Construction; 2012 (Reapproved 2022).
- I. ASTM D4632/D4632M - Standard Test Method for Grab Breaking Load and Elongation of Geotextiles; 2015a (Reapproved 2023).

- J. ASTM D698 - Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft³ (600 kN-m/m³)); 2012 (Reapproved 2021).
- K. ASTM D1557 - Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft³ (2,700 kN-m/m³)); 2012 (Reapproved 2021).
- L. ASTM D2167 - Standard Test Method for Density and Unit Weight of Soil in Place by the Rubber Balloon Method; 2015.
- M. ASTM D2487 - Standard Practice for Classification of Soils for Engineering Purposes (Unified Soil Classification System); 2017, with Editorial Revision (2020).
- N. ASTM D6938 - Standard Test Methods for In-Place Density and Water Content of Soil and Soil-Aggregate by Nuclear Methods (Shallow Depth); 2023.
- O. ASTM E329 - Standard Specification for Agencies Engaged in Construction Inspection, Testing, or Special Inspection; 2023.

1.05 SUBMITTALS

- A. Materials Sources: Submit name of imported materials source.
- B. Fill Composition Test Reports: Results of laboratory tests on proposed and actual materials used, including manufactured fill.
- C. Material Test Reports: For each on-site and borrow soil material proposed for fill and backfill as follows:
 - 1. Classification according to ASTM D2487.
 - 2. Laboratory compaction curve according to ASTM D698 or ASTM D1557.
- D. Compaction Density Test Reports.
- E. Qualification Data: For qualified testing agency.

1.06 QUALITY ASSURANCE

- A. Geotechnical Testing Agency Qualifications: Qualified according to ASTM E329 and ASTM D3740 for testing indicated.

1.07 DELIVERY, STORAGE, AND HANDLING

- A. When necessary, store materials on site in advance of need.

PART 2 PRODUCTS

2.01 FILL MATERIALS

- A. General: Provide borrow soil materials when sufficient satisfactory soil materials are not available from excavations.
- B. Satisfactory Soils: Soil Classification Groups GW, GP, GM, SW, SP, and SM according to ASTM D2487, Groups A-1, A-2-4, A-2-5, and A-3 according to AASHTO M 145, or a combination of these groups; free of rock or gravel larger than 3 inches (75 mm) in any dimension, debris, waste, frozen materials, vegetation, and other deleterious matter.
- C. Unsatisfactory Soils: Soil Classification Groups GC, SC, CL, ML, OL, CH, MH, OH, and PT according to ASTM D2487, Groups A-2-6, A-2-7, A-4, A-5, A-6, and A-7 according to AASHTO M 145, or a combination of these groups.
 - 1. Unsatisfactory soils also include satisfactory soils not maintained within 2 percent of optimum moisture content at time of compaction.
- D. Base Course: Artificially graded mixture, crushed stone, ASTM D2940/D2940M; NYS DOT 733.0402 Type 2 crushed stone; Angular crushed stone: free of shale, clay, friable material and debris.
- E. Bedding Course: Naturally or artificially graded mixture of natural or crushed gravel, crushed stone, and natural or crushed sand; ASTM D2940/D2940M. Graded in accordance with ASTM C136/C136M. Pipe bedding material as detailed for the particular utility:
 - 1. Class I - Angular Granular material, ¼" to 1 ½" crushed stone or rock, ASTM D2321, placed and tampered to firmly support Utility pipe.
 - 2. Class II - NYS DOT Item 733.0402, Type 2, crushed stone, ASTM D2487, less than 5% passing No. 200 sieve.
- F. Drainage Course: Narrowly graded mixture of washed crushed stone, or crushed or uncrushed gravel; ASTM D448; ASTM #57 Stone; coarse-aggregate grading Size 1 ½ inches.
 - 1. Graded in accordance with ASTM C136/C136M, within the following limits:
 - a. 1 ½ inch sieve: 100 percent passing.
 - b. 1 inch sieve: 95 to 100 percent passing.
 - c. ½ inch sieve: 25 to 60 percent passing.
 - d. No. 4: 0 to 10 percent passing.
 - e. No. 8: 0 to 5 percent passing
- G. Structural Fill: Artificially graded mixture, crushed stone, ASTM D2940/D2940M; NYS DOT 733.0402 Type 2 crushed stone; Angular crushed stone: free of shale, clay, friable material and debris.

- H. Granular Fill: Artificially graded mixture, crushed stone, ASTM D2940/D2940M; NYS DOT 733.0402 Type 2 crushed stone; Angular crushed stone: free of shale, clay, friable material and debris.

2.02 GEOTEXTILES

- A. Geotextile Filter Fabric: Nonwoven needle-punched geotextile, manufactured for subsurface drainage applications, made from polyolefins or polyesters; with elongation greater than 50 percent; complying with AASHTO M 288 and the following, measured per test methods referenced:
 - 1. Survivability: Strength Class 2, Drainage Class C; NYSDOT 737.01.
 - 2. Survivability: As follows:
 - a. Grab Tensile Strength: 157 lbf (700 N); ASTM D4632/D4632M.
 - b. Puncture Strength: 309 lbf (1,380 N); ASTM D 6241.
 - 3. Apparent Opening Size: No. 70 (0.212-mm) sieve, maximum; ASTM D 4751.
 - 4. Permittivity: $> 0.1 \text{ sec}^{-1}$, minimum; ASTM D 4491.
 - 5. UV Stability: 50 percent after 500 hours' exposure; ASTM D 4355

2.03 ACCESSORIES

- A. Warning Tape: Acid- and alkali-resistant, polyethylene film warning tape manufactured for marking and identifying underground utilities, 6 inches (150 mm) wide and 4 mils (0.1 mm) thick, continuously inscribed with a description of the utility; colored as follows:
 - 1. Revise colors below to comply with local practice or requirements of authorities having jurisdiction.
 - 2. Red: Electric.
 - 3. Yellow: Gas, fuel oil, steam, and dangerous materials.
 - 4. Orange: Telephone and other communications.
 - 5. Blue: Water systems.
 - 6. Green: Sewer systems.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that survey bench marks and intended elevations for the Work are as indicated.
- B. Identify required lines, levels, contours, and datum locations.

- C. See Section 31 2200 - Grading, for additional requirements.
- D. Verify subdrainage, dampproofing, or waterproofing installation has been inspected.
- E. Verify areas to be filled are not compromised with surface or ground water.

3.02 PREPARATION

- A. Till and Scarify subgrade surface to a depth of 4 inches.
- B. Cut out soft areas of subgrade not capable of compaction in place. Backfill with general fill.
- C. Compact subgrade to density equal to or greater than requirements for subsequent fill material.
- D. Until ready to fill, maintain excavations and prevent loose soil from falling into excavation.

3.03 FILLING

- A. Fill to contours and elevations indicated using unfrozen materials.
- B. Fill up to subgrade elevations unless otherwise indicated.
- C. Employ a placement method that does not disturb or damage other work.
- D. Systematically fill to allow maximum time for natural settlement. Do not fill over porous, wet, frozen or spongy subgrade surfaces.
- E. Maintain optimum moisture content of fill materials to attain required compaction density.
- F. Granular Fill: Place and compact materials in equal continuous layers not exceeding 6 inches compacted depth.
- G. Soil Fill: Place and compact material in equal continuous layers not exceeding 8 inches compacted depth.
- H. Slope grade away from building minimum 2 inches in 10 feet, unless noted otherwise. Make gradual grade changes. Blend slope into level areas.
- I. Correct areas that are over-excavated.
 - 1. Load-bearing foundation surfaces: Use structural fill, flush to required elevation, compacted to 95 percent of maximum dry density.
 - 2. Other areas: Use general fill, flush to required elevation, compacted to minimum 90 percent of maximum dry density.
- J. Compaction Density Unless Otherwise Specified or Indicated:
 - 1. Under paving, slabs-on-grade, and similar construction: 95 percent of maximum dry density.

2. At other locations: 90 percent of maximum dry density.
- K. Reshape and re-compact fills subjected to vehicular traffic.
 - L. Maintain temporary means and methods, as required, to remove all water while fill is being placed as required, or until directed by the Engineer. Remove and replace soils deemed unsuitable by classification and which are excessively moist due to lack of dewatering or surface water control.

3.04 BACKFILL

- A. Place and compact backfill in excavations promptly, but not before completing the following:
 1. Construction below finish grade including, where applicable, subdrainage, dampproofing, waterproofing, and perimeter insulation.
 2. Surveying locations of underground utilities for Record Documents.
 3. Testing and inspecting underground utilities.
 4. Removing concrete formwork.
 5. Removing trash and debris.
 6. Removing temporary shoring, bracing, and sheeting.
- B. Place backfill on subgrades free of mud, frost, snow, or ice.

3.05 UTILITY TRENCH BACKFILL

- A. Place backfill on subgrades free of mud, frost, snow, or ice.
- B. Place and compact bedding course on trench bottoms and where indicated. Shape bedding course to provide continuous support for bells, joints, and barrels of pipes and for joints, fittings, and bodies of conduits.
- C. Trenches under Roadways and Walks: Backfill utilizing Base Course for the entire depth.
- D. Initial Backfill/Bedding:
 1. Soil Backfill: Place and compact initial backfill/bedding of base material, free of particles larger than 1 ½ inch (38 mm) in any dimension, to a height of 12 inches (300 mm) over the pipe or conduit.
 - a. Carefully compact initial bedding under pipe haunches and compact evenly up on both sides and along the full length of piping or conduit to avoid damage or displacement of piping or conduit. Coordinate backfilling with utilities testing.
- E. Final Backfill:

1. Soil Backfill: Place and compact final backfill of satisfactory soil to final subgrade elevation.
- F. Warning Tape: Install warning tape directly above utilities, 12 inches (300 mm) below finished grade, except 6 inches (150 mm) below subgrade under pavement and slabs.
- G. Backfill to contours and elevations indicated using unfrozen materials.
- H. Systematically fill to allow maximum time for natural settlement. Do not fill over porous, wet, frozen, or spongy subgrade surfaces.
- I. Maintain optimum moisture content of fill materials to attain required compaction density.
- J. Place and compact Bedding and Backfill materials in equal continuous layers not exceeding 6 inches compacted depth.
- K. Correct areas that are over-excavated.
 1. Thrust bearing surfaces: Fill with concrete.
 2. Other areas: Use granular fill, flush to required elevation, compacted to minimum 95 percent of maximum dry density.
- L. Compaction Density Unless Otherwise Specified or Indicated:
 1. At unpaved areas: 90 percent of maximum dry density.
 2. At paved areas: 95 percent of maximum dry density.
- M. Re-shape and re-compact fills subjected to vehicular traffic.
- N. Top Surface of General Backfilling: Plus or minus 1 inch from required elevations.
- O. Top Surface of Backfilling under Paved Areas and Trenches: Plus or minus ½ inch from required elevations.

3.06 SOIL MOISTURE CONTROL

- A. Uniformly moisten or aerate subgrade and each subsequent fill or backfill soil layer before compaction to within 2 percent of optimum moisture content.
 1. Do not place Backfill or Fill soil material on surfaces that are muddy, frozen, or contain frost or ice.
 2. Remove and replace, or scarify and air dry otherwise satisfactory soil material that exceeds optimum moisture content by 2 percent and is too wet to compact to specified dry unit weight.

3.07 COMPACTION OF SOIL BACKFILLS AND FILLS

- A. Place Backfill and Fill soil materials in layers not more than 6 inches under structures and 12 inches under lawn areas for material compacted by heavy compaction equipment, and not more than 4 inches (100 mm) for material compacted by hand-operated tampers.
- B. Place Backfill and Fill soil materials evenly on all sides of structures to required elevations, and uniformly along the full length of each structure.
- C. Compact soil materials to not less than the following percentages of maximum dry unit weight according ASTM D1557:
 - 1. Under structures, building slabs, steps, walkways, manholes and pavements, Proofroll existing subgrade and compact each layer of backfill or fill soil material to 95 percent compaction.
 - 2. Under lawn or unpaved areas, proof roll and compact each layer of backfill or fill soil material to 90 percent compaction.

3.08 GRADING

- A. General: Uniformly grade areas to a smooth surface, free of irregular surface changes. Comply with compaction requirements and grade to cross sections, lines, and elevations indicated.
- B. Site Grading: Slope grades to direct water away from buildings and to prevent ponding. Finish subgrades to required elevations within the following tolerances:
 - 1. Lawn or Unpaved Areas: Plus or minus 1 inch (25 mm).
 - 2. Walks: Plus or minus ½ inch (13 mm).
 - 3. Pavements: Plus or minus ¼ inch (7 mm).
 - 4. Trenches: Plus or minus ½ inch (13 mm).

3.09 SUBBASE AND BASE COURSES UNDER PAVEMENTS AND WALKS

- A. Place subbase course and base course on subgrades free of mud, frost, snow, or ice.
- B. On prepared subgrade, place subbase course and base course under pavements and walks as follows:
 - 1. Place base course material over subbase course under hot-mix asphalt pavement.
 - 2. Shape subbase course and base course to required crown elevations and cross-slope grades.
 - 3. Place subbase course and base course 6 inches (150 mm) or less in compacted thickness in a single layer.
 - 4. Place subbase course and base course that exceeds 6 inches (150 mm) in compacted thickness in layers of equal thickness, with no compacted layer more than 6 inches (150

mm) thick or less than 3 inches (75 mm) thick.

5. Compact subbase course and base course at optimum moisture content to required grades, lines, cross sections, and thickness to not less than 98 percent of maximum dry unit weight according to ASTM D1557.

3.10 FIELD QUALITY CONTROL

- A. Testing Agency: Contractor will engage a qualified independent geotechnical engineering testing agency to perform field quality-control testing.
- B. Allow testing agency to inspect and test Subgrades and each Fill or Backfill layer. Proceed with subsequent earthwork only after test results for previously completed work comply with requirements.
- C. Footing Subgrade: At footing subgrades, at least one test of each soil stratum will be performed to verify design bearing capacities. Subsequent verification and approval of other footing subgrades may be based on a visual comparison of subgrade with tested subgrade when approved by Engineer.
- D. Testing agency will test soils in accordance with the following:
 1. ASTM C136/C136M ASTM C 136 - Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates; 2019.
 2. ASTM D1557 - Test Method for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft³ (2,700 kN m/m³)); 2012.
 3. ASTM D2167 - Standard Test Method for Density and Unit Weight of Soil in Place by the Rubber Balloon Method; 2000.
 4. ASTM D6938 - Standard Test Methods for Density of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth); 2017a.
 5. ASTM D3017 - Standard Test Method for Water Content of Soil and Rock in Place by Nuclear Methods (Shallow Depth); 1996.
- E. If tests indicate work does not meet specified requirements, remove work, replace and retest.
- F. Frequency of Tests in Trenches: Perform one test on each lift per 100 feet of trench length. For runs less than 100 feet, perform one test on each lift.
- G. Frequency of for Site fills : One compaction test shall be performed for each lift for every 1,500 square feet of building area, 2,000 square feet of paved area and 5,000 square feet of unpaved area.
- H. When testing agency reports that Subgrades, Fills, or Backfills have not achieved degree of compaction specified, scarify and moisten or aerate, or remove and replace soil to depth required; re-compact and re-test until specified compaction is obtained.

- I. Initial samples and test reports shall be prepared and submitted for each type of material to be utilized. Multiple tests may be required for materials that may vary through the project.
- J. Daily testing and compaction reports shall be kept on site or provided to the Engineer for verification.

3.11 PROTECTION

- A. Protecting Graded Areas: Protect newly graded areas from traffic, freezing, and erosion. Keep free of trash and debris.
- B. Repair and reestablish grades to specified tolerances where completed or partially completed surfaces become eroded, rutted, settled, or where they lose compaction due to subsequent construction operations or weather conditions.
- C. Where settling occurs before Project correction period elapses, remove finished surfacing, backfill with additional soil material, compact, and reconstruct surfacing.
 - 1. Restore appearance, quality, and condition of finished surfacing to match adjacent work, and eliminate evidence of restoration to greatest extent possible.

3.12 DISPOSAL OF SURPLUS AND WASTE MATERIALS

- A. Disposal: Remove surplus satisfactory soil and waste material, including unsatisfactory soil, trash, and debris, and legally dispose of it off Owner's property.

3.13 CLEANING

- A. Remove unused stockpiled materials, leave area in a clean and neat condition. Grade stockpile area to prevent standing surface water.
- B. Leave borrow areas in a clean and neat condition. Grade to prevent standing surface water.

END OF SECTION

**SECTION 31 5000
EXCAVATION SUPPORT AND PROTECTION**

PART 1 GENERAL

1.01 SUMMARY

- A. Section includes temporary excavation support and protection systems.
- B. Related Requirements:
 - 1. Section 31 2200 - Grading: Site grading.
 - 2. Section 31 2316 - Excavation: Removal and handling of soil to be re-used.
 - 3. Section 31 2319 - Dewatering and Drainage: Dewatering excavations.

1.02 PREINSTALLATION MEETINGS

- A. Preinstallation Conference: Conduct conference at Project site.
 - 1. Review existing utilities and subsurface conditions.
 - 2. Review coordination for interruption, shutoff, capping, and continuation of utility services.
 - 3. Review proposed excavations.
 - 4. Review proposed equipment.
 - 5. Review monitoring of excavation support and protection system.
 - 6. Review abandonment or removal of excavation support and protection system.

1.03 SUBMITTALS

- A. Product Data: For each type of product.
 - 1. Include construction details, material descriptions, performance properties, and dimensions of individual components and profiles, and calculations for excavation support and protection system.
- B. Shop Drawings: For excavation support and protection system, prepared by or under the supervision of a qualified professional engineer.
 - 1. Include plans, elevations, sections, and details.
 - 2. Show arrangement, locations, and details of soldier piles, piling, lagging, tiebacks, bracing, and other components of excavation support and protection system according to engineering design.

3. Include a written plan for excavation support and protection, including sequence of construction of support and protection coordinated with progress of excavation.
- C. Contractor Calculations: For excavation support and protection system. Include analysis data signed and sealed by the qualified professional engineer responsible for their preparation. If manufactured trench and/or manhole shield are utilized, analysis should be provided that include manufacturer's design data, rating and certification for each trench or manhole shield used. Data must also include shield serial number, model number and a signed certification by a professional engineer.
- D. Existing Conditions: Using photographs or video recordings, show existing conditions of adjacent construction and site improvements that might be misconstrued as damage caused by inadequate performance of excavation support and protection systems. Submit before Work begins.
- E. Record Drawings: Identify locations and depths of capped utilities, abandoned-in-place support and protection systems, and other subsurface structural, electrical, or mechanical conditions.

1.04 FIELD CONDITIONS

- A. Interruption of Existing Utilities: Do not interrupt any utility serving facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary utility according to requirements indicated:
 1. Notify Owner no fewer than three days in advance of proposed interruption of utility.
 2. Do not proceed with interruption of utility without Owner's written permission.
- B. Project-Site Information: No geotechnical data is available for this Project area. The project site is within the City of Watertown, with the development dating back over 100 years. Native soils in the project area are generally know to be clay and silt. However, fill soils, as well as building debris, brick, ash and rubble are commonly encountered. No bedrock is anticipated based off City record plans and NRCS Web Soil Survey data. Contractor is responsible for verification and interpretation of soil conditions to be encountered.

PART 2 PRODUCTS

2.01 PERFORMANCE REQUIREMENTS

- A. Provide, monitor, and maintain excavation support and protection system capable of supporting excavation sidewalls and of resisting earth and hydrostatic pressures and superimposed and construction loads.
 1. Contractor Design: Design excavation support and protection system, including comprehensive engineering analysis by a qualified professional engineer.
 2. Prevent surface water from entering excavations by grading, dikes, or other means.

3. Install excavation support and protection systems without damaging existing buildings, structures, and utilities adjacent to excavation.
4. Continuously monitor vibrations, settlements, and movements to ensure stability of excavations and constructed slopes and to ensure that damage to permanent structures is prevented.

2.02 MATERIALS

- A. General: Provide materials that are either new or in serviceable condition.
- B. Structural Steel: ASTM A36/A36M, ASTM A690/A690M, or ASTM A992/A992M.
- C. Steel Sheet Piling: ASTM A328/A328M, ASTM A572/A572M, or ASTM A690/A690M; with continuous interlocks.
- D. Wood Lagging: Lumber, mixed hardwood, nominal rough thickness of size and strength required for application.
- E. Cast-in-Place Concrete: ACI 301, of compressive strength required for application.
- F. Reinforcing Bars: ASTM A615/A615M, Grade 60 (Grade 420), deformed.
- G. Tiebacks: Steel bars, ASTM A722/A722M.
- H. Tiebacks: Steel strand, ASTM A416/A416M.

PART 3 EXECUTION

3.01 PREPARATION

- A. Protect structures, utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards that could develop during excavation support and protection system operations.
 1. Shore, support, and protect utilities encountered.
- B. Install excavation support and protection systems to ensure minimum interference with roads, streets, walks, and other adjacent occupied and used facilities.
 1. Do not close or obstruct streets, walks, or other adjacent occupied or used facilities without permission from Owner and authorities having jurisdiction. Provide alternate routes around closed or obstructed traffic ways if required by authorities having jurisdiction.
- C. Locate excavation support and protection systems clear of permanent construction so that construction and finishing of other work is not impeded.

3.02 FIELD QUALITY CONTROL

- A. Survey-Work Benchmarks: Resurvey benchmarks regularly during installation of excavation support and protection systems, excavation progress, and for as long as excavation remains open. Maintain an accurate log of surveyed elevations and positions for comparison with original elevations and positions. Promptly notify Engineer if changes in elevations or positions occur or if cracks, sags, or other damage is evident in adjacent construction.
- B. Promptly correct detected bulges, breakage, or other evidence of movement to ensure that excavation support and protection system remains stable.
- C. Promptly repair damages to adjacent facilities caused by installation or faulty performance of excavation support and protection systems.

3.03 REMOVAL AND REPAIRS

- A. Remove excavation support and protection systems when construction has progressed sufficiently to support excavation and earth and hydrostatic pressures. Remove in stages to avoid disturbing underlying soils and rock or damaging structures, pavements, facilities, and utilities.
 - 1. Remove excavation support and protection systems to a minimum depth of 48 inches (1200 mm) below overlying construction and abandon remainder.
 - 2. Repair or replace, as approved by Engineer, adjacent work damaged or displaced by removing excavation support and protection systems.

END OF SECTION 315000

**SECTION 32 1123
AGGREGATE BASE COURSES**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Aggregate base course.
- B. Aggregate Surface Course

1.02 RELATED REQUIREMENTS

- A. Section 31 2200 - Grading: Preparation of site for base course.
- B. Section 31 2323 - Fill: Compacted fill under base course.
- C. Section 32 1216 - Asphalt Paving: Finish and binder asphalt courses.
- D. Section 32 1313 - Concrete Paving: Finish concrete surface course.

1.03 REFERENCE STANDARDS

- A. AASHTO T 180 - Standard Method of Test for Moisture-Density Relations of Soils Using a 4.54-kg (10-lb) Rammer and a 457-mm (18-in.) Drop; 2022, with Errata .
- B. ASTM D698 - Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft³ (600 kN-m/m³)); 2012 (Reapproved 2021).
- C. ASTM D1556/D1556M - Standard Test Method for Density and Unit Weight of Soil in Place by Sand-Cone Method; 2015, with Editorial Revision (2016).
- D. ASTM D1557 - Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft³ (2,700 kN-m/m³)); 2012 (Reapproved 2021).
- E. ASTM D2167 - Standard Test Method for Density and Unit Weight of Soil in Place by the Rubber Balloon Method; 2015.
- F. ASTM D2940/D2940M - Standard Specification for Graded Aggregate Material for Bases or Subbases for Highways or Airports; 2020.
- G. ASTM D6938 - Standard Test Methods for In-Place Density and Water Content of Soil and Soil-Aggregate by Nuclear Methods (Shallow Depth); 2023.
- H. NYSDOT Standard Specifications - New York State Department of Transportation; September 2022.

1.04 SUBMITTALS

- A. Materials Sources: Submit name of imported materials source.

- B. Aggregate Composition Test Reports: Results of laboratory tests on proposed and actual materials used.
- C. Compaction Density Test Reports.

PART 2 PRODUCTS

2.01 MATERIALS

- A. Base Course: Artificially graded mixture, crushed stone, ASTM D2940/D2940M; NYSDOT 733.0402 Type 2 Crushed Stone; Angular crushed stone: free of shale, clay, friable material and debris.
- B. Surface Course: Artificially graded mixture, crushed stone, ASTM D2940/D2940M; NYSDOT 733.0402 Type 2 Crushed Stone; Angular crushed stone: free of shale, clay, friable material and debris.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that survey bench marks and intended elevations for the work are as indicated.
- B. Verify substrate has been inspected, gradients and elevations are correct, and is dry.

3.02 PREPARATION

- A. Correct irregularities in substrate gradient and elevation by scarifying, reshaping, and re-compacting.
- B. Do not place aggregate on soft, muddy, or frozen surfaces.

3.03 INSTALLATION

- A. Spread aggregate over prepared substrate to a total compacted as indicated on the drawings.
- B. Under Asphalt Paving in Streets:
 - 1. Place NYSDOT 733.0402 Type 2 Crushed Stone to a total compacted thickness of 12 inches.
 - 2. Compact to 95 percent of maximum dry density.
- C. Under Asphalt Paving in Driveways and Concrete Walks:
 - 1. Place NYSDOT 733.0402 Type 2 Crushed Stone to a total compacted thickness of 6 inches.
 - 2. Compact to 95 percent of maximum dry density.
- D. Surface Course in Driveways:

1. Place NYSDOT 733.0402 Type 2 Crushed Stone to a total compacted thickness of 12 inches.
 2. Compact to 95 percent of maximum dry density.
- E. Place aggregate in maximum 6 inch layers and roller compact to specified density.
- F. Level and contour surfaces to elevations and gradients indicated.
- G. Add water to assist compaction. If excess water is apparent, remove aggregate and aerate to reduce moisture content.
- H. Use mechanical tamping equipment in areas inaccessible to compaction equipment.

3.04 TOLERANCES

- A. Flatness: Maximum variation of 1/4 inch measured with 10 foot straight edge.
- B. Scheduled Compacted Thickness: Within 1/4 inch.
- C. Variation From Design Elevation: Within 1/2 inch.

3.05 FIELD QUALITY CONTROL

- A. Testing Agency: Contractor will engage a qualified independent geotechnical engineering testing agency to perform field quality-control testing.
- B. Allow testing agency to inspect and test Subgrades and each Fill or Backfill layer. Proceed with subsequent earthwork only after test results for previously completed work comply with requirements.
- C. Compaction density testing will be performed on compacted aggregate base course in accordance with ASTM D1556, ASTM D2167, or ASTM D6938.
- D. Results will be evaluated in relation to compaction curve determined by testing uncompacted material in accordance with AASHTO T 180, ASTM D698 ("standard Proctor"), or ASTM D1557 ("modified Proctor").
- E. If tests indicate work does not meet specified requirements, remove work, replace and retest.
- F. Frequency of Tests: Perform one test on each lift for every 2,000 square feet of paved area.

3.06 CLEANING

- A. Remove unused stockpiled materials, leave area in a clean and neat condition. Grade stockpile area to prevent standing surface water.
- B. Leave borrow areas in a clean and neat condition. Grade to prevent standing surface water.

END OF SECTION

**SECTION 32 1216
ASPHALT PAVING**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Asphalt pavement - Binder Course
- B. Asphalt pavement - Top Course
- C. Surface sealer.

1.02 RELATED REQUIREMENTS

- A. Section 31 2200 - Grading: Preparation of site for paving and base course.
- B. Section 31 2323 - Fill: Compacted subgrade for paving.
- C. Section 32 1123 - Aggregate Base Courses: Aggregate base course.
- D. Section 32 1313 - Concrete Paving: Concrete sidewalks, curbs, and gutters.

1.03 REFERENCE STANDARDS

- A. AASHTO M 29 - Standard Specification for Fine Aggregate for Bituminous Paving Mixtures; 2012.
- B. AASHTO M 320 - Standard Specification for Performance-Graded Asphalt Binder; 2017.
- C. AASHTO T 245 - Standard Method of Test for Resistance to Plastic Flow of Asphalt Mixtures Using Marshall Apparatus; 2015.
- D. AI MS-22 - CONSTRUCTION OF HOT MIX ASPHALT PAVEMENTS; 2001.
- E. ASTM D1073 - Standard Specification for Fine Aggregate for Asphalt Paving Mixtures; 2016 (Reapproved 2022).
- F. ASTM D242/242M - Standard Specification for Mineral Filler for Asphalt Mixtures; 2019.
- G. ASTM D2950/D2950M - Standard Test Method for Density of Bituminous Concrete in Place by Nuclear Methods; 2014.
- H. ASTM D3381/D3381M - Standard Specification for Viscosity-Graded Asphalt Binder for Use in Pavement Construction; 2018.
- I. ASTM D3549/D3549M - Standard Test Method for Thickness or Height of Compacted Asphalt Mixture Specimens; 2018.
- J. ASTM D3666 - Standard Specification for Minimum Requirements for Agencies Testing and Inspecting Road and Paving Materials; 2016.

- K. ASTM D692/D692M - Standard Specification for Coarse Aggregate for Asphalt Paving Mixtures; 2020.
- L. ASTM D6927 - Standard Test Method for Marshall Stability and Flow of Asphalt Mixtures; 2015.
- M. NYSDOT Standard Specifications - New York State Department of Transportation; September 2022.
- N. ASTM D977 - Standard Specification for Emulsified Asphalt; 2019.

1.04 SUBMITTALS

- A. Product Data: For each type of product indicated. Include technical data and tested physical and performance properties.
 - 1. Job-Mix Designs: Certification, by authorities having jurisdiction, of approval of each job mix proposed for the Work.
 - 2. Job-Mix Designs: For each job mix proposed for the Work.
- B. Qualification Data: For qualified manufacturer and Installer.
- C. Material Certificates: For each paving material, from manufacturer.
- D. Material Test Reports: For each paving material.

1.05 QUALITY ASSURANCE

- A. Perform Work in accordance with City of Watertown standards.
- B. Mixing Plant: Complying with NYSDOT Standard Specifications.
- C. Manufacturer Qualifications: A paving-mix manufacturer registered with and approved by the NYSDOT.
- D. Testing Agency Qualifications: Qualified according to ASTM D3666 for testing indicated and NYSDOT.
- E. Regulatory Requirements: Comply with materials, workmanship, and other applicable requirements of the NYSDOT Standard Specifications for asphalt paving work.
 - 1. Measurement and payment provisions and safety program submittals included in standard specifications do not apply to this Section.
 - 2. References to NYSDOT item numbers noted herein pertain to material and installation, not unit price payment.
- F. Preinstallation Conference: Conduct conference at Project Site.

1. Review methods and procedures related to hot-mix asphalt paving including, but not limited to, the following:
 - a. Review proposed sources of paving materials, including capabilities and location of plant that will manufacture hot-mix asphalt.
 - b. Review condition of subgrade and preparatory work.
 - c. Review requirements for protecting paving work, including restriction of traffic during installation period and for remainder of construction period.
- G. Review and finalize construction schedule and verify availability of materials, Installer's personnel, equipment, and facilities needed to make progress and avoid delays

1.06 DELIVERY, STORAGE AND HANDLING

- A. Deliver pavement-marking materials to Project site in original packages with seals unbroken and bearing manufacturer's labels containing brand name and type of material, date of manufacture, and directions for storage.
- B. Store pavement-marking materials in a clean, dry, protected location within temperature range required by manufacturer. Protect stored materials from direct sunlight.

1.07 FIELD CONDITIONS

- A. Environmental Limitations: Do not apply asphalt materials if subgrade is wet or excessively damp, if rain is imminent or expected before time required for adequate cure, or if the following conditions are not met:
 1. Tack Coat: Minimum surface temperature of 50 deg F (10 deg C).
 2. Asphalt Binder Course: Minimum surface temperature of 45 deg F (7.2 deg C) and rising at time of placement.
 3. Asphalt Top Course: Minimum surface temperature of 45 deg F (7.2 deg C) at time of placement.

PART 2 PRODUCTS

2.01 MATERIALS

- A. Aggregates:
 1. General: Use materials and gradations conforming to NYSDOT Standard Specifications.
 2. Coarse Aggregate: ASTM D692/D692M, sound; angular crushed stone, crushed gravel, or cured, crushed blast-furnace slag.
 3. Fine Aggregate: ASTM D1073 or AASHTO M 29, sharp-edged natural sand or sand prepared from stone, gravel, cured blast-furnace slag, or combinations thereof.

- a. For hot-mix asphalt, limit natural sand to a maximum of 20 percent by weight of the total aggregate mass.
4. Mineral Filler: ASTM D242/242M, rock or slag dust, hydraulic cement, or other inert material.

2.02 ASPHALT MATERIALS

- A. Asphalt Binder: AASHTO M 320.
- B. Asphalt Cement: ASTM D3381/D3381M for viscosity-graded material.
- C. Tack Coat: NYSDOT Item #407.0102 or #407.0103, ASTM D977 emulsified asphalt, or anionic emulsified asphalt, slow setting, diluted in water, of suitable grade and consistency for application.
- D. Water: Potable.

2.03 AUXILIARY MIXES

- A. Joint Sealant: Liquid asphalt that meets the requirements of NYS DOT Standard Specifications material designation 702-0700, asphalt filler.

2.04 MIXES

- A. Hot-Mix Asphalt: Dense-graded, hot-laid, hot-mix asphalt plant mixes complying with the following requirements:
 1. Provide mixes with a history of satisfactory performance in geographical area where Project is located.
 2. Binder Course: NYSDOT 402.1989, 19mm, 80 series, F9 (Type 3)
 3. Top Course (Streets): NYSDOT 402.0982, 9.5mm, 80 series, F2 (Type 6).
 4. Top Course (Driveways): NYSDOT 402.0989, 9.5mm, 80 series, F9 (Type 7).

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that compacted subgrade and aggregate base course is dry and ready to support paving and imposed loads.
- B. Verify gradients and elevations of base are correct.

3.02 PATCHING

- A. Hot Mix Asphalt Pavement: Saw cut perimeter of patch and excavate existing pavement section to sound base. Excavate rectangular or trapezoidal patches, extending 12 inches (300 mm) into

perimeter of adjacent sound pavement, unless otherwise indicated. Cut asphalt faces vertically. Remove asphalt material. Recompact existing aggregate base course.

- B. Tack Coat: Before placing patch material, apply tack coat uniformly to vertical asphalt surfaces abutting the patch. Apply at a rate of 0.05 to 0.15 gal./sq. yd. (0.2 to 0.7 L/sq. m).
 - 1. Allow tack coat to cure undisturbed before applying hot-mix asphalt paving.
 - 2. Avoid smearing or staining adjoining surfaces, appurtenances, and surroundings. Remove spillages and clean affected surfaces.
- C. Placing Patch Material: Partially fill excavated pavements with hot-mix asphalt base mix and, while still hot, compact. Cover asphalt base course with compacted, hot-mix surface layer finished flush with adjacent surfaces.

3.03 SURFACE PREPARATION

- A. General: Immediately before placing asphalt materials, remove loose and deleterious material from substrate surfaces. Ensure that prepared subgrade is ready to receive paving.
- B. Tack Coat: Apply uniformly to surfaces of existing pavement at a rate of 0.05 to 0.15 gal./sq. yd. (0.2 to 0.7 L/sq. m).
 - 1. Allow tack coat to cure undisturbed before applying hot-mix asphalt paving.
 - 2. Avoid smearing or staining adjoining surfaces, appurtenances, and surroundings. Remove spillages and clean affected surfaces.

3.04 PLACING HOT-MIX ASPHALT

- A. Machine place hot-mix asphalt on prepared surface, spread uniformly, and strike off. Place asphalt mix by hand in areas inaccessible to equipment in a manner that prevents segregation of mix. Place each course to required grade, cross section, and thickness when compacted.
 - 1. Place hot-mix asphalt binder course in number of lifts and thicknesses indicated.
 - 2. Place hot-mix asphalt surface course in single lift.
 - 3. Spread mix at a minimum temperature of 250 deg F (121 deg C).
 - 4. Begin applying mix along centerline of crown for crowned sections and on high side of one-way slopes unless otherwise indicated.
 - 5. Regulate paver machine speed to obtain smooth, continuous surface free of pulls and tears in asphalt-paving mat.
- B. Place paving in consecutive strips not less than 10 feet (3 m) wide unless infill edge strips of a lesser width are required.

1. After first strip has been placed and rolled, place succeeding strips and extend rolling to overlap previous strips. Overlap mix placement about 1 to 1-1/2 inches (25 to 38 mm) from strip to strip to ensure proper compaction of mix along longitudinal joints.
 2. Complete a section of asphalt base course before placing asphalt surface course.
- C. Promptly correct surface irregularities in paving course behind paver. Use suitable hand tools to remove excess material forming high spots. Fill depressions with hot-mix asphalt to prevent segregation of mix; use suitable hand tools to smooth surface.

3.05 JOINTS

- A. Construct joints to ensure a continuous bond between adjoining paving sections. Construct joints free of depressions, with same texture and smoothness as other sections of hot-mix asphalt course.
1. Clean contact surfaces and apply tack coat to joints.
 2. Offset longitudinal joints, in successive courses, a minimum of 6 inches (150 mm).
 3. Offset transverse joints, in successive courses, a minimum of 24 inches (600 mm).
 4. Construct transverse joints at each point where paver ends a day's work and resumes work at a subsequent time. Construct these joints using either "bulkhead" or "papered" method according to AI MS-22, for both "Ending a Lane" and "Resumption of Paving Operations."
 5. Compact joints as soon as hot-mix asphalt will bear roller weight without excessive displacement.
 6. Compact asphalt at joints to a density within 2 percent of specified course density.

3.06 COMPACTION

- A. General: Begin compaction as soon as placed hot-mix paving will bear roller weight without excessive displacement. Compact hot-mix paving with hot, hand tampers or with vibratory-plate compactors in areas inaccessible to rollers.
1. Complete compaction before mix temperature cools to 185 deg F (85 deg C).
- B. Breakdown Rolling: Complete breakdown or initial rolling immediately after rolling joints and outside edge. Examine surface immediately after breakdown rolling for indicated crown, grade, and smoothness. Correct laydown and rolling operations to comply with requirements.
- C. Intermediate Rolling: Begin intermediate rolling immediately after breakdown rolling while hot-mix asphalt is still hot enough to achieve specified density. Continue rolling until hot-mix asphalt course has been uniformly compacted to the following density:

1. Average Density: 97 percent of reference laboratory density according to ASTM D6927 or AASHTO T 245, but not less than 94 percent or greater than 100 percent.
- D. Finish Rolling: Finish roll paved surfaces to remove roller marks while hot-mix asphalt is still warm.
- E. Edge Shaping: While surface is being compacted and finished, trim edges of pavement to proper alignment. Bevel edges while asphalt is still hot; compact thoroughly.
- F. Repairs: Remove paved areas that are defective or contaminated with foreign materials and replace with fresh, hot-mix asphalt. Compact by rolling to specified density and surface smoothness.
- G. Protection: After final rolling, do not permit vehicular traffic on pavement until it has cooled and hardened.
- H. Erect barricades to protect paving from traffic until mixture has cooled enough not to become marked.

3.07 PREPARATION - TACK COAT

- A. Apply tack coat in accordance with NYSDOT Standard Specifications.
- B. Apply tack coat on asphalt surfaces.
- C. Apply tack coat to contact surfaces of curbs.
- D. Coat top surfaces of manhole, catch basin, and valve box covers with oil to prevent bond with asphalt pavement. Do not tack coat these surfaces.

3.08 INSTALLATION TOLERANCES

- A. Pavement Thickness: Compact each course to produce the thickness indicated within the following tolerances:
 1. Binder Course: Plus or minus 1/2 inch (13 mm).
 2. Top Course: Plus 1/4 inch (6 mm), no minus.
- B. Pavement Surface Smoothness: Compact each course to produce a surface smoothness within the following tolerances as determined by using a 10-foot (3-m) straightedge applied transversely or longitudinally to paved areas:
 1. Binder Course: 1/4 inch (6 mm).
 2. Top Course: 1/8 inch (3 mm).
 3. Crowned Surfaces: Test with crowned template centered and at right angle to crown. Maximum allowable variance from template is 1/4 inch (6 mm).

3.09 FIELD QUALITY CONTROL

- A. Testing Agency: Contractor will engage a 3rd party qualified testing agency to perform tests and inspections.
- B. Thickness: In-place compacted thickness of hot-mix asphalt courses will be determined according to ASTM D3549/D3549M.
- C. Surface Smoothness: Finished surface of each hot-mix asphalt course will be tested for compliance with smoothness tolerances.
- D. In-Place Density: Conduct any necessary testing to ensure the specified density is achieved. A nuclear gauge shall be used to monitor pavement density in accordance with ASTM D2950/D2950M. Take nuclear density gauge readings at locations and intervals every 100 feet along the length of pavement for each pass of the paver.
- E. Replace and compact hot-mix asphalt where core tests were taken.
- F. Remove and replace or install additional hot-mix asphalt where test results or measurements indicate that it does not comply with specified requirements.

3.10 WASTE HANDLING

- A. Except for material indicated to be recycled, remove excavated materials from Project site and legally dispose of them in an EPA-approved landfill.
 - 1. Do not allow milled materials to accumulate on-site.

3.11 PROTECTION

- A. Immediately after placement, protect pavement from mechanical injury for 1 days or until surface temperature is less than 140 degrees F.

END OF SECTION

**SECTION 32 1313
CONCRETE PAVING**

PART 1 GENERAL

1.01 SUMMARY

- A. Section Includes:
 - 1. Curbs.
 - 2. Walks.
 - 3. Concrete Aprons.

1.02 RELATED REQUIREMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.03 REFERENCE STANDARDS

- A. AASHTO M 182 - Standard Specification for Burlap Cloth Made from Jute or Kenaf and Cotton Mats; 2005.
- B. ACI 117 - Specification for Tolerances for Concrete Construction and Materials; 2010 (Reapproved 2015).
- C. ACI 117M - Specification for Tolerances for Concrete Construction and Materials (ACI 117M-10) and Commentary (ACI 117RM-10); 2010.
- D. ACI 301 - Specifications for Concrete Construction; 2020.
- E. ACI 301M - Specifications for Structural Concrete; 2016.
- F. ACI 306.1 - Standard Specification for Cold Weather Concreting; 1998.
- G. ACI CP-1 - Technician Workbook for Concrete Field Testing Technician—Grade I; 38th Edition.
- H. ASTM A1064/A1064M - Standard Specification for Carbon-Steel Wire and Welded Wire Reinforcement, Plain and Deformed, for Concrete; 2022.
- I. ASTM C1017/C1017M - Standard Specification for Chemical Admixtures for Use in Producing Flowing Concrete; 2013.
- J. ASTM C1064/1064M - Standard Test Method for Temperature of Freshly Mixed Hydraulic-Cement Concrete; 2017.
- K. ASTM C1077 - Standard Practice for Agencies Testing Concrete and Concrete Aggregates for Use in Construction and Criteria for Testing Agency Evaluation; 2024.

- L. ASTM C1116/C1116M - Standard Specification for Fiber-Reinforced Concrete; 2023.
- M. ASTM D994/D994M - Standard Specification for Preformed Expansion Joint Filler for Concrete (Bituminous Type); 2011 (Reapproved 2022).
- N. ASTM C143/C143M - Standard Test Method for Slump of Hydraulic-Cement Concrete; 2020.
- O. ASTM C150/C150M - Standard Specification for Portland Cement; 2022.
- P. ASTM C171 - Standard Specification for Sheet Materials for Curing Concrete; 2020.
- Q. ASTM C231/231M - Standard Test Method for Air Content of Freshly Mixed Concrete by the Pressure Method; 2017.
- R. ASTM C260/C260M - Standard Specification for Air-Entraining Admixtures for Concrete; 2010a (Reapproved 2016).
- S. ASTM C309 - Standard Specification for Liquid Membrane-Forming Compounds for Curing Concrete; 2019.
- T. ASTM C31/C31M - Standard Practice for Making and Curing Concrete Test Specimens in the Field; 2024.
- U. ASTM C33/C33M - Standard Specification for Concrete Aggregates; 2023.
- V. ASTM C39/C39M - Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens; 2023.
- W. ASTM C494/C494M - Standard Specification for Chemical Admixtures for Concrete; 2019, with Editorial Revision (2022).
- X. ASTM C920 - Standard Specification for Elastomeric Joint Sealants; 2018.
- Y. ASTM C94/C94M - Standard Specification for Ready-Mixed Concrete; 2024.
- Z. ASTM D7174 - Standard Specification for Preformed Closed-Cell Polyolefin Expansion Joint Fillers for Concrete Paving and Structural Construction; 2005.
- AA. ASTM D8139 - Standard Specification for Semi-Rigid, Closed-Cell Polypropylene Foam, Preformed Expansion Joint Fillers for Concrete Paving and Structural Construction; 2023.
- BB. ASTM E329 - Standard Specification for Agencies Engaged in Construction Inspection, Testing, or Special Inspection; 2023.
- CC. CRSI Manual of Standard Practice - Manual of Standard Practice; 29th Edition, 2018.

1.04 SUBMITTALS

- A. Product Data: For each type of product indicated.

- B. Design Mixtures: For each concrete paving mixture. Include alternate design mixtures when characteristics of materials, Project conditions, weather, test results, or other circumstances warrant adjustments.
- C. Material Certificates: For the following, from manufacturer:
 - 1. Cementitious materials.
 - 2. Steel reinforcement and reinforcement accessories.
 - 3. Admixtures.
 - 4. Curing compounds.
 - 5. Applied finish materials.
 - 6. Bonding agent or epoxy adhesive.
 - 7. Joint fillers.
- D. Field quality-control reports.

1.05 QUALITY ASSURANCE

- A. Ready-Mix-Concrete Manufacturer Qualifications: A firm experienced in manufacturing ready-mixed concrete products and that complies with ASTM C94/C94M requirements for production facilities and equipment.
 - 1. Manufacturer certified according to NRMCA's "Certification of Ready Mixed Concrete Production Facilities" (Quality Control Manual - Section 3, "Plant Certification Checklist").
- B. Testing Agency Qualifications: Qualified according to ASTM C1077 and ASTM E329 for testing indicated.
 - 1. Personnel conducting field tests shall be qualified as ACI Concrete Field Testing Technician, Grade 1, according to ACI CP-1 or an equivalent certification program.
- C. Concrete Testing Service: Engage a qualified independent testing agency to perform material evaluation tests and to design concrete mixtures.
- D. ACI Publications: Comply with ACI 301 (ACI 301M) unless otherwise indicated.
- E. Preinstallation Conference: Conduct conference at Project site.
 - 1. Review methods and procedures related to concrete paving, including but not limited to, the following:
 - a. Concrete mixture design.

- b. Quality control of concrete materials and concrete paving construction practices.
2. Require representatives of each entity directly concerned with concrete paving to attend, including the following:
 - a. Contractor's superintendent.
 - b. Independent testing agency responsible for concrete design mixtures.
 - c. Ready-mix concrete manufacturer.
 - d. Concrete paving subcontractor.

PART 2 PRODUCTS

2.01 FORMS

- A. Form Materials: Plywood, metal, metal-framed plywood, or other approved panel-type materials to provide full-depth, continuous, straight, and smooth exposed surfaces.
 1. Use flexible or uniformly curved forms for curves with a radius of 100 feet (30.5 m) or less.
- B. Form-Release Agent: Commercially formulated form-release agent that will not bond with, stain, or adversely affect concrete surfaces and that will not impair subsequent treatments of concrete surfaces.

2.02 STEEL REINFORCEMENT

- A. Plain-Steel Welded Wire Reinforcement: ASTM A1064/A1064M, fabricated from as-drawn steel wire into flat sheets.
- B. Bar Supports: Bolsters, chairs, spacers, and other devices for spacing, supporting, and fastening welded wire reinforcement in place. Manufacture bar supports according to CRSI Manual of Standard Practice.

2.03 CONCRETE MATERIALS

- A. Cementitious Material: Use the following cementitious materials, of same type, brand, and source throughout Project:
 1. Portland Cement: ASTM C150/C150M, Type I, Type II or Type I/II.
 2. Portland Cement: ASTM C595, Type II
- B. Normal-Weight Aggregates: ASTM C33/C33M, Class 4S coarse aggregate, uniformly graded. Provide aggregates from a single source.
- C. Air-Entraining Admixture: ASTM C260/C260M.

- D. Chemical Admixtures: certified by manufacturer to be compatible with other admixtures and to contain not more than 0.1 percent water-soluble chloride ions by mass of cementitious material.
 - 1. Water-Reducing Admixture: ASTM C494/C494M, Type A.
 - 2. Retarding Admixture: ASTM C494/C494M, Type B.
 - 3. Water-Reducing and Retarding Admixture: ASTM C494/C494M, Type D.
 - 4. High-Range, Water-Reducing Admixture: ASTM C494/C494M, Type F.
 - 5. High-Range, Water-Reducing and Retarding Admixture: ASTM C494/C494M, Type G.
 - 6. Plasticizing and Retarding Admixture: ASTM C1017/C1017M, Type II.
- E. Water: ASTM C94/C94M.

2.04 CURING MATERIALS

- A. Absorptive Cover: AASHTO M 182, Class 2, burlap cloth.
- B. Moisture-Retaining Cover: ASTM C171, polyethylene film or white burlap-polyethylene sheet.
- C. Water: Potable.
- D. Evaporation Retarder: Waterborne, monomolecular, film forming, manufactured for application to fresh concrete.
- E. Clear, Waterborne, Membrane-Forming Curing Compound: ASTM C309, Type 1, Class B, dissipating.
- F. White, Waterborne, Membrane-Forming Curing Compound: ASTM C309, Type 2, Class B.

2.05 RELATED MATERIALS

- A. Expansion-and-Isolation-Joint-Filler Strips: ASTM D8139 or ASTM D7174, closed-cell polypropylene foam.
- B. Expansion-and-Isolation-Joint-Filler Strips: ASTM D994/D994M, bituminous.
- C. Joint Sealant: ASTM C920

2.06 CONCRETE MIXTURES

- A. Prepare design mixtures, proportioned according to ACI 301 (ACI 301M), with the following properties:
 - 1. Curbs, Walks, Concrete Aprons:
 - a. Compressive Strength (28 Days): 5,000 psi (31.0 MPa).

- b. Maximum Water-Cementitious Materials Ratio at Point of Placement: 0.43.
- c. Slump Limit: 3 inches (75 mm), plus or minus 1 inch (25 mm).
- d. Air Content: 6 percent plus or minus 1.5 percent.

2.07 CONCRETE MIXING

- A. Ready-Mixed Concrete: Measure, batch, and mix concrete materials and concrete according to ASTM C94/C94M and ASTM C1116/C1116M. Furnish batch certificates for each batch discharged and used in the Work.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Examine exposed subgrades and subbase surfaces for compliance with requirements for dimensional, grading and elevation tolerances.
- B. Proof-roll prepared subbase surface below concrete paving with heavy pneumatic-tired equipment to identify soft pockets and areas of excess yielding.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.02 EDGE FORMS AND SCREED CONSTRUCTION

- A. Set, brace, and secure edge forms, bulkheads, and intermediate screed guides to required lines, grades, and elevations. Install forms to allow continuous progress of work and so forms can remain in place at least 24 hours after concrete placement.
- B. Clean forms after each use and coat with form-release agent to ensure separation from concrete without damage.

3.03 STEEL REINFORCEMENT

- A. General: Comply with CRSI Manual of Standard Practice for fabricating, placing, and supporting reinforcement.
- B. Clean reinforcement of loose rust and mill scale, earth, ice, or other bond-reducing materials.
- C. Arrange, space, and securely tie bars and bar supports to hold reinforcement in position during concrete placement. Maintain minimum cover to reinforcement.
- D. Install welded wire reinforcement in lengths as long as practicable. Lap adjoining pieces at least one full mesh, and lace splices with wire. Offset laps of adjoining widths to prevent continuous laps in either direction.

3.04 JOINTS

- A. General: Form construction, isolation, and contraction joints and tool edges true to line, with faces perpendicular to surface plane of concrete. Construct transverse joints at right angles to centerline unless otherwise indicated.
- B. Construction Joints: Set transverse construction joints in sidewalk at a maximum at side and end terminations of paving and at locations where paving operations are stopped for more than one-half hour unless paving terminates at isolation joints.
- C. Isolation Joints: Form isolation joints of preformed joint-filler strips abutting concrete curbs, catch basins, manholes, inlets, structures, other fixed objects, and where indicated.
- D. Contraction Joints: Form weakened-plane contraction joints, sectioning concrete into areas as indicated. Construct contraction joints for a depth equal to at least one-fourth of the concrete thickness.
- E. Edging: Tool edges of sidewalks and joint in concrete after initial floating with an edging tool to a 1/4-inch (6-mm) radius. Repeat tooling of edges after applying surface finishes. Eliminate edging-tool marks on concrete surfaces.
- F. Edging: Tool edges of concrete paving. All other joints to be sawcut.

3.05 CONCRETE PLACEMENT

- A. Before placing concrete, inspect and complete formwork installation, steel reinforcement, and items to be embedded or cast-in.
- B. Moisten subbase to provide a uniform dampened condition at time concrete is placed. Do not place concrete around manholes or other structures until they are at required finish elevation and alignment.
- C. Comply with ACI 301 (ACI 301M) requirements for measuring, mixing, transporting, and placing concrete.
- D. Do not add water to concrete during delivery or at Project site. Do not add water to fresh concrete after testing.
- E. Deposit and spread concrete in a continuous operation between transverse joints. Do not push or drag concrete into place or use vibrators to move concrete into place.
- F. Consolidate concrete according to ACI 301 (ACI 301M) by mechanical vibrating equipment supplemented by hand spading, rodding, or tamping.
 - 1. Consolidate concrete along face of forms and adjacent to transverse joints with an internal vibrator. Keep vibrator away from joint assemblies, reinforcement, or side forms. Use only square-faced shovels for hand spreading and consolidation. Consolidate with care to prevent dislocating reinforcement dowels and joint devices.
- G. Screed paving surface with a straightedge and strike off.

- H. Commence initial floating using bull floats or darbies to impart an open-textured and uniform surface plane before excess moisture or bleed water appears on the surface. Do not further disturb concrete surfaces before beginning finishing operations or spreading surface treatments.
- I. Cold-Weather Placement: Protect concrete work from physical damage or reduced strength that could be caused by frost, freezing, or low temperatures. Comply with ACI 306.1 and the following:
 - 1. When air temperature has fallen to or is expected to fall below 40 deg F (4.4 deg C), uniformly heat water and aggregates before mixing to obtain a concrete mixture temperature of not less than 50 deg F (10 deg C) and not more than 80 deg F (27 deg C) at point of placement.
 - 2. Do not use frozen materials or materials containing ice or snow.
 - 3. Do not use calcium chloride, salt, or other materials containing antifreeze agents or chemical accelerators unless otherwise specified and approved in design mixtures.
- J. Hot-Weather Placement: Comply with ACI 301 (ACI 301M) and as follows when hot-weather conditions exist:
 - 1. Cool ingredients before mixing to maintain concrete temperature below 90 deg F (32 deg C) at time of placement. Chilled mixing water or chopped ice may be used to control temperature, provided water equivalent of ice is calculated in total amount of mixing water. Using liquid nitrogen to cool concrete is Contractor's option.
 - 2. Cover steel reinforcement with water-soaked burlap so steel temperature will not exceed ambient air temperature immediately before embedding in concrete.
 - 3. Fog-spray forms, steel reinforcement, and subgrade just before placing concrete. Keep subgrade moisture uniform without standing water, soft spots, or dry areas.

3.06 FLOAT FINISHING

- A. General: Do not add water to concrete surfaces during finishing operations.
- B. Float Finish: Begin the second floating operation when bleed-water sheen has disappeared and concrete surface has stiffened sufficiently to permit operations. Float surface with power-driven floats or by hand floating if area is small or inaccessible to power units. Finish surfaces to true planes. Cut down high spots and fill low spots. Refloat surface immediately to uniform granular texture.
 - 1. Burlap Finish: Drag a seamless strip of damp burlap across float-finished concrete, perpendicular to line of traffic, to provide a uniform, gritty texture.
 - 2. Medium-to-Fine-Textured Broom Finish: Draw a soft-bristle broom across float-finished concrete surface perpendicular to line of traffic to provide a uniform, fine-line texture, followed by tooled edging and jointing.

3.07 CONCRETE PROTECTION AND CURING

- A. General: Protect freshly placed concrete from premature drying and excessive cold or hot temperatures.
- B. Comply with ACI 306.1 for cold-weather protection.
- C. Evaporation Retarder: Apply evaporation retarder to concrete surfaces if hot, dry, or windy conditions cause moisture loss approaching 0.2 lb/sq. ft. x h (1 kg/sq. m x h) before and during finishing operations. Apply according to manufacturer's written instructions after placing, screeding, and bull floating or darbying concrete but before float finishing.
- D. Begin curing after finishing concrete but not before free water has disappeared from concrete surface.
- E. Curing Methods: Cure concrete by moisture curing, curing compound or a combination of these methods.
 - 1. Moisture Curing: Keep surfaces continuously moist for not less than seven days with the following materials:
 - a. Water.
 - b. Continuous water-fog spray.
 - c. Absorptive cover, water saturated and kept continuously wet. Cover concrete surfaces and edges with 12-inch (300 mm) lap over adjacent absorptive covers.
 - 2. Moisture-Retaining-Cover Curing: Cover concrete surfaces with moisture-retaining cover, placed in widest practicable width, with sides and ends lapped at least 12 inches (300 mm), and sealed by waterproof tape or adhesive. Immediately repair any holes or tears occurring during installation or curing period, using cover material and waterproof tape.
 - 3. Curing Compound: Apply uniformly in continuous operation by power spray or roller according to manufacturer's written instructions. Recoat areas subjected to heavy rainfall within three hours after initial application. Maintain continuity of coating, and repair damage during curing period.

3.08 PAVING TOLERANCES

- A. Comply with tolerances in ACI 117 (ACI 117M) and as follows:
 - 1. Elevation: 1/4 inch (6 mm).
 - 2. Thickness: Plus 3/8 inch (10 mm), minus 1/4 inch (6 mm).
 - 3. Surface: Gap below 10-foot- (3-m-) long, unlevelled straightedge not to exceed 1/4 inch (6 mm).

4. Joint Spacing: 3 inches (75 mm).
5. Contraction Joint Depth: Plus 1/4 inch (6 mm), no minus.
6. Joint Width: Plus 1/8 inch (3 mm), no minus.

3.09 FIELD QUALITY CONTROL

- A. Testing Agency: Contractor will engage a qualified 3rd party testing agency to perform tests and inspections.
- B. Contractor shall allow testing agency to gather, sample, inspect and test concrete as necessary.
- C. Testing Services: Testing of composite samples of fresh concrete obtained according to ASTM C 172 shall be performed according to the following requirements:
 1. Testing Frequency: Obtain at least one composite sample for each 5000 sq. ft. (465 sq. m) or fraction thereof of each concrete mixture placed each day.
 - a. When frequency of testing will provide fewer than five compressive-strength tests for each concrete mixture, testing shall be conducted from at least five randomly selected batches or from each batch if fewer than five are used.
 2. Slump: ASTM C143/C143M; one test at point of placement for each composite sample, but not less than one test for each day's pour of each concrete mixture. Perform additional tests when concrete consistency appears to change.
 3. Air Content: ASTM C231/231M, pressure method; one test for each composite sample, but not less than one test for each day's pour of each concrete mixture.
 4. Concrete Temperature: ASTM C1064/1064M; one test hourly when air temperature is 40 deg F (4.4 deg C) and below and when it is 80 deg F (27 deg C) and above, and one test for each composite sample.
 5. Compression Test Specimens: ASTM C31/C31M; cast and laboratory cure one set of three standard cylinder specimens for each composite sample.
 6. Compressive-Strength Tests: ASTM C39/C39M; test one specimen at seven days and two specimens at 28 days.
 - a. A compressive-strength test shall be the average compressive strength from two specimens obtained from same composite sample and tested at 28 days.
- D. Strength of each concrete mixture will be satisfactory if average of any three consecutive compressive-strength tests equals or exceeds specified compressive strength and no compressive-strength test value falls below specified compressive strength by more than 500 psi (3.4 MPa), or flexural-strength test value falls below specified flexural strength by more than 50 psi (0.33 MPa).

- E. Test results shall be reported in writing to Engineer, concrete manufacturer, and Contractor within 48 hours of testing. Reports of compressive-strength tests shall contain Project identification name and number, date of concrete placement, name of concrete testing and inspecting agency, location of concrete batch in Work, design compressive strength at 28 days, concrete mixture proportions and materials, compressive breaking strength, and type of break for both 7- and 28-day tests.
- F. Nondestructive Testing: Impact hammer, sonoscope, or other nondestructive device may be permitted by Engineer but will not be used as sole basis for approval or rejection of concrete.
- G. Additional Tests: Testing and inspecting agency shall make additional tests of concrete when test results indicate that slump, air entrainment, compressive strengths, or other requirements have not been met, as directed by Engineer.
- H. Concrete paving will be considered defective if it does not pass tests and inspections.
- I. Additional testing and inspecting, at Contractor's expense, will be performed to determine compliance of replaced or additional work with specified requirements.
- J. Prepare test and inspection reports.

3.10 REPAIRS AND PROTECTION

- A. Remove and replace concrete paving that is broken, damaged, or defective or that does not comply with requirements in this Section.
- B. Protect concrete paving from damage. Exclude traffic from paving for at least 14 days after placement.
- C. Maintain concrete paving free of stains, discoloration, dirt, and other foreign material. Sweep concrete pavement not more than two days before date scheduled for Substantial Completion inspections.

END OF SECTION 321313

**SECTION 32 1723
PAVEMENT MARKINGS**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Painted pavement markings.
 - 1. Parking stalls.
 - 2. Stop Bars and Crosswalks.

1.02 RELATED REQUIREMENTS

- A. Section 32 1216 - Asphalt Paving.

1.03 REFERENCE STANDARDS

- A. AASHTO MP 24 - Standard Specification for Waterborne White and Yellow Traffic Paints; 2015 (Reapproved 2020).
- B. FHWA MUTCD - Manual on Uniform Traffic Control Devices; 2023.
- C. FS TT-P-1952 - Paint, Traffic and Airfield Marking, Waterborne; 2015f (Validated 2020).
- D. MPI (APL) - Master Painters Institute Approved Products List; Master Painters and Decorators Association; Current Edition.
- E. NYSDOT Standard Specifications - New York State Department of Transportation; September 2022.

1.04 SUBMITTALS

- A. Product Data: Manufacturer's data sheets on each product to be used.
 - 1. Preparation instructions and recommendations.
 - 2. Storage and handling requirements and recommendations.
 - 3. Installation methods.
- B. Certificates: Submit for each batch stating compliance with specified requirements.
 - 1. Painted pavement markings.

1.05 DELIVERY, STORAGE, AND HANDLING

- A. Deliver paint in containers of at least 1 gallons accompanied by batch certificate.
- B. Store products in manufacturer's unopened packaging until ready for installation.

- C. Store and dispose of solvent-based materials, and materials used with solvent-based materials, in accordance with requirements of local authorities having jurisdiction.

1.06 FIELD CONDITIONS

- A. Do not install products under environmental conditions outside manufacturer's absolute limits.
- B. Environmental Limitations: Proceed with pavement marking only on clean, dry surfaces and at a minimum ambient or surface temperature of 40 deg F (4.4 deg C) for alkyd materials, 55 def F (12.8 deg C) for water-based materials, and not exceeding 95 deg F (35 deg C).

1.07 SEQUENCING

- A. Allow new pavement surfaces to cure for a period of not less than 14 days before application of markings.

PART 2 PRODUCTS

2.01 MATERIALS

- A. Pavement-Marking Paint: Latex, waterborn emulsion, lead and chromate free, ready mixed, complying with FS TT-P-1952, Type II, with drying time of less than 45 minutes.
 - 1. Retain required color(s) in "Color" Subparagraph below. If more than one color is required, indicate locations of each on Drawings or by inserts.
 - 2. Color: White, or as indicated.

2.02 PAINTED PAVEMENT MARKINGS

- A. Comply with FHWA MUTCD.
- B. Painted Pavement Markings: As indicated on drawings.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verification of Conditions: Verify that pavement is dry and ready for installation.
- B. Notify Engineer of unsatisfactory conditions before proceeding. Proceed with pavement marking only after unsatisfactory conditions have been corrected.

3.02 PREPARATION

- A. Establish survey control points for locating and dimensioning of markings.
- B. Place barricades, warning signs, and flags as necessary to alert approaching traffic.
- C. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

- D. Clean surfaces prior to installation.
 - 1. Remove dust, dirt, and other debris by sweeping, blowing with compressed air, rinsing with water, or combination of these methods .
- E. Where oil or grease are present, scrub affected areas with several applications of trisodium phosphate solution or other approved detergent or degreaser, and rinse thoroughly after each application; after cleaning, seal oil-soaked areas with cut shellac to prevent bleeding through the new paint.
- F. Establish survey control points to determine locations and dimensions of markings; provide templates to control paint application by type and color at necessary intervals.
- G. Temporary Markings: Apply as directed by Engineer. Apply markings of the color(s), width(s) and length(s) as indicated or directed.

3.03 INSTALLATION

- A. General:
 - 1. Position pavement markings as indicated on drawings.
 - 2. Field location adjustments require approval of Engineer.
 - 3. Begin pavement marking as soon as practicable after surface has been cleaned and dried.
 - 4. Do not apply paint if temperature of surface to be painted or the atmosphere is less than 50 degrees F or more than 95 degrees F.
 - 5. Apply in accordance with manufacturer's instructions using an experienced technician that is thoroughly familiar with equipment, materials, and marking layouts.
 - 6. Comply with FHWA MUTCD manual (<http://mutcd.fhwa.dot.gov>) for details not shown.
 - 7. Apply markings in locations determined by measurement from survey control points; preserve control points until after makings have been accepted.
 - 8. Apply uniformly painted markings of color(s), lengths, and widths as indicated on drawings true, sharp edges, and ends.
 - a. Apply paint in one coat only.
 - b. Wet Film Thickness: 0.015 inch, minimum.
 - c. Width Tolerance: Plus or minus 1/8 inch.
 - 9. Parking Stalls: Apply parking stall lines, middle and end type, as indicated on drawings.
 - 10. Cross Walks: Apply cross walk pavement markings in accordance with FHWA MUTCD and NYSDOT Standard Specifications.

B. Painted Pavement Markings:

1. Apply in accordance with manufacturer's instructions.
2. Apply in accordance with FHWA MUTCD standards.

3.04 TOLERANCES

- A. Maximum Variation From True Position: 3 inches (76 mm).
- B. Maximum Offset From True Alignment: 3 inches (76 mm).

3.05 FIELD QUALITY CONTROL

- A. If inspections indicate work does not meet specified requirements, rework and reinspect at no cost to Owner.
- B. Allow the pavement marking to set at least the minimum time recommended by manufacturer.

3.06 PROTECTION

- A. Prevent approaching traffic from crossing newly applied pavement markings.
- B. Replace damaged or removed markings at no additional cost to Owner.
- C. Preserve survey control points until pavement marking acceptance.

END OF SECTION

**SECTION 32 1726
TACTILE WARNING SURFACING**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Cast iron tactile and detectable warning tiles for pedestrian walking surfaces.

1.02 RELATED REQUIREMENTS

- A. Section 03 3000 - Cast-in-Place Concrete: Concrete for sidewalks and platforms.
- B. Section 32 1313 - Concrete Paving: "Concrete paving" for concrete walkways serving as substrates for tactile warning surfacing.

1.03 REFERENCE STANDARDS

- A. 49 CFR 37 - Transportation Services for Individuals with Disabilities (ADA); current edition.
- B. ADA Standards - 2010 ADA Standards for Accessible Design; 2010.
- C. ASTM A48/A48M - Standard Specification for Gray Iron Castings; 2022.
- D. ATBCB PROWAG - Proposed Accessibility Guidelines for Pedestrian Facilities in the Public Right-of-Way; 2011.

1.04 SUBMITTALS

- A. Product Data: Submit manufacturer's product data, standard details, details specific to this project; written installation and maintenance instructions.
- B. Manufacturer's Qualification Statement.
- C. Warranty: Submit manufacturer warranty; complete forms in Owner's name and register with manufacturer.

1.05 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section, with not less than five years documented experience.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. Deliver to project site in manufacturer's protective wrapping and in manufacturer's unopened packaging.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Cast Iron Detectable Warning Plates:

1. EJ; Duralast Detectable Warning Plate: www.ejco.com/#sle.
2. Neenah Foundry, a division of Neenah Enterprises, Inc: www.nfco.com/#sle.
3. US Foundry
4. or Approved Equal.

2.02 TACTILE AND DETECTABLE WARNING DEVICES

A. Cast Iron Detectable Warning Plates:

1. Material: Gray cast iron; ASTM A48/A48M, Class 35 B (minimum) and ATBCB PROWAG.
2. Installation Method: Cast in place.
3. Shape: Rectangular, Radius, and As noted on plans.
4. Square Dimensions: 24 inches square and 24 inches by 30 inches.
5. Radius Dimensions: 24 inches wide, 10 feet and 15 feet radius or as indicated on the plans.
6. Pattern: Inline pattern of truncated domes in compliance with ADA Standards.

PART 3 EXECUTION

3.01 INSTALLATION, GENERAL

- A. Install in accordance with manufacturer's written instructions.
 1. Do not install damaged, warped, bowed, dented, abraded, or otherwise defective units.
 2. Do not install when ambient or substrate temperature has been below 40 degrees F during the preceding 8 daylight hours.
- B. Field Adjustment:
 1. Cut units to size and configuration shown on drawings.
 2. Locate relative to curb line in compliance with ATBCB PROWAG, Sections 304 and 305.
 3. Orient so dome pattern is aligned with the direction of ramp.
- C. Install units fully seated to substrate, square to straight edges and flat to required slope.
- D. Align units so that tops of adjacent units are flush and joints between units are uniform in width.

3.02 INSTALLATION - CAST IN PLACE, CAST IRON PLATES

- A. Install by method described in manufacturer's written instructions.
- B. Place units into wet concrete.
- C. Press assembly into concrete to achieve final elevation.
- D. Finish concrete adjacent to plate. Remove wet concrete spilled onto plate surface.

3.03 PROTECTION

- A. Protect installed units from traffic, subsequent construction operations or other imposed loads until concrete is fully cured.
- B. Touch-up, repair or replace damaged products prior to Date of Substantial Completion.

END OF SECTION

**SECTION 32 3113
CHAIN LINK FENCES**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Posts, rails, and frames.
- B. Wire fabric.
- C. Concrete.
- D. Accessories.

1.02 REFERENCE STANDARDS

- A. ASTM A123/A123M - Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products; 2017.
- B. ASTM A153/A153M - Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware; 2023.
- C. ASTM A392 - Standard Specification for Zinc-Coated Steel Chain-Link Fence Fabric; 2011a (Reapproved 2022).
- D. ASTM A1011/A1011M - Standard Specification for Steel, Sheet and Strip, Hot-Rolled, Carbon, Structural, High-Strength Low-Alloy, High-Strength Low-Alloy with Improved Formability, and Ultra-High Strength; 2023.
- E. ASTM C94/C94M - Standard Specification for Ready-Mixed Concrete; 2024.
- F. ASTM F567 - Standard Practice for Installation of Chain-Link Fence; 2023.
- G. ASTM F1043 - Standard Specification for Strength and Protective Coatings on Steel Industrial Fence Framework; 2018 (Reapproved 2022).
- H. ASTM F1083 - Standard Specification for Pipe, Steel, Hot-Dipped Zinc-Coated (Galvanized) Welded, for Fence Structures; 2018 (Reapproved 2022).
- I. CLFMI CLF-FIG0111 - Field Inspection Guide; 2014.
- J. CLFMI CLF-PM0610 - Product Manual; 2017.
- K. CLFMI CLF-SFR0111 - Security Fencing Recommendations; 2014.
- L. FS RR-F-191/1D - Fencing, Wire and Post Metal (Chain-Link Fence Fabric); 1990.

1.03 SUBMITTALS

- A. Product Data: Provide data on fabric, posts, accessories, fittings and hardware.

- B. Shop Drawings: Indicate plan layout, spacing of components, post foundation dimensions, hardware anchorage, and schedule of components. See CLFMI CLF-SFR0111 for planning and design recommendations.
- C. Manufacturer's Installation Instructions: Indicate installation requirements.
- D. Manufacturer's Qualification Statement.

1.04 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section, with not less than three years of documented experience.
- B. Fence Installer: Company with demonstrated successful experience installing similar projects and products, with not less than five years of documented experience.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Chain Link Fences:
 - 1. Master-Halco, Inc: www.masterhalco.com/#sle.
 - 2. Merchants Metals: www.merchantsmetals.com/#sle.
 - 3. Or approved equal.

2.02 COMPONENTS

- A. Line Posts: 1.9 inch diameter.
- B. Corner and Terminal Posts: 2.38 inch diameter.
- C. Top and Brace Rail: 1.66 inch diameter, plain end, sleeve coupled.
- D. Fabric: 2 inch diamond mesh interwoven wire, 9 gauge, 0.1483 inch thick, top selvage knuckle end closed, bottom selvage knuckle end closed.
- E. Tension Wire: 6 gauge, 0.1920 inch thick steel, single strand.
- F. Tie Wire: Aluminum alloy steel wire.

2.03 MATERIALS

- A. Posts, Rails, and Frames:
 - 1. ASTM A1011/A1011M, Designation SS; hot-rolled steel strip, cold formed to pipe configuration, longitudinally welded construction, minimum yield strength of 50 ksi; zinc coating complying with ASTM F1043 and ASTM F1083.

2. Line Posts: Type I round in accordance with FS RR-F-191/1D.
 3. Terminal, Corner, Rail, Brace, and Gate Posts: Type I round in accordance with FS RR-F-191/1D.
 4. Comply with CLFMI CLF-PM0610.
- B. Wire Fabric:
1. ASTM A392 zinc coated steel chain link fabric.
 2. Comply with CLFMI CLF-PM0610.
- C. Concrete:
1. Ready-mixed, complying with ASTM C94/C94M; normal Portland cement; 4,500 psi strength at 28 days, 3 inch slump.

2.04 ACCESSORIES

- A. Caps: Cast steel galvanized; sized to post diameter, set screw retainer.
- B. Fittings: Sleeves, bands, clips, rail ends, tension bars, fasteners and fittings; steel.

2.05 FINISHES

- A. Components (Other than Fabric): Galvanized in accordance with ASTM A123/A123M, at 1.7 ounces per square foot.
- B. Hardware: Hot-dip galvanized to weight required by ASTM A153/A153M.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verification of Conditions: Verify that areas are clear of obstructions or debris.

3.02 PREPARATION

- A. Removal: Obstructions or debris.
- B. Ground Preparation:

3.03 INSTALLATION

- A. Install framework, fabric, accessories in accordance with ASTM F567.
- B. Place fabric on outside of posts and rails.
- C. Set posts plumb in concrete footings flush with finish grade. Slope top of concrete for water runoff.

- D. Line Post Footing Depth Below Finish Grade: ASTM F567 or 4.5 feet.
- E. Corner, Gate and Terminal Post Footing Depth Below Finish Grade: ASTM F567 or 4.5 feet.
- F. Provide top rail through line post tops and splice with 6 inch long rail sleeves.
- G. Stretch fabric between terminal posts or at intervals of 100 feet maximum, whichever is less.
- H. Position bottom of fabric 2 inches above finished grade.
- I. Fasten fabric to top rail, line posts, braces, and bottom tension wire with tie wire at maximum 15 inches on centers.
- J. Attach fabric to end, corner, and gate posts with tension bars and tension bar clips.
- K. Install bottom tension wire stretched taut between terminal posts.

3.04 TOLERANCES

- A. Maximum Variation From Plumb: 1/4 inch.
- B. Maximum Offset From True Position: 1 inch.
- C. Do not infringe on adjacent property lines.

3.05 FIELD QUALITY CONTROL

- A. Layout: Verify that fence installation markings are accurate to design, paying attention to gate locations, underground utilities, and property lines.
- B. Post Settings: Randomly inspect three locations against design for:
 - 1. Hole diameter.
 - 2. Hole depth.
 - 3. Hole spacing.
- C. Fence Height: Randomly measure fence height at three locations or at areas that appear out of compliance with design.
- D. Workmanship: Verify neat installation free of defects. See CLFMI CLF-FIG0111 for field inspection guidance.

3.06 CLEANING

- A. Clean jobsite of excess materials; scatter excess material from post hole excavations uniformly away from posts. Remove excess material if required.
- B. Clean fence with mild household detergent and clean water rinse well.

- C. Remove mortar from exposed posts and other fencing material using a 10 percent solution of muriatic acid followed immediately by several rinses with clean water.
- D. Touch up scratched surfaces using materials recommended by manufacturer. Match touched-up paint color to factory-applied finish.

END OF SECTION

**SECTION 32 9219
SEEDING**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Preparation of subsoil.
- B. Placing topsoil.
- C. Seeding or Hydroseeding, mulching and fertilizer.
- D. Maintenance.

1.02 RELATED REQUIREMENTS

- A. Section 31 2200 - Grading: Preparation of subsoil topsoil in preparation for the work of this section.

1.03 REFERENCE STANDARDS

- A. AASHTO T 267 - Standard Method of Test for Determination of Organic Content in Soils by Loss on Ignition; 1986.
- B. ASTM C136/C136M - Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates; 2019.
- C. ASTM C602 - Standard Specification for Agricultural Liming Materials; 2023.
- D. ASTM D2487 - Standard Practice for Classification of Soils for Engineering Purposes (Unified Soil Classification System); 2017, with Editorial Revision (2020).
- E. ASTM D977 - Standard Specification for Emulsified Asphalt; 2019.

1.04 DEFINITIONS

- A. Weeds: Include Dandelion, Jimsonweed, Quackgrass, Horsetail, Morning Glory, Rush Grass, Mustard, Lambsquarter, Chickweed, Cress, Crabgrass, Canadian Thistle, Nutgrass, Poison Oak, Blackberry, Tansy Ragwort, Bermuda Grass, Johnson Grass, Poison Ivy, Nut Sedge, Nimble Will, Bindweed, Bent Grass, Wild Garlic, Perennial Sorrel, and Brome Grass.

1.05 SUBMITTALS

- A. Topsoil samples:
 - 1. Gradation and Classification
 - 2. Soil Nutrient Analysis, including recommendations for PH and fertilizer application
- B. Certificate: Certify seed mixture approval for use in state and planting zone.

- C. Maintenance Data: Include maintenance instructions, cutting method and maximum grass height; types, application frequency, and recommended coverage of fertilizer.

1.06 REGULATORY REQUIREMENTS

- A. Comply with regulatory agencies for fertilizer and herbicide composition.
- B. Provide certificate of compliance from authority having jurisdiction indicating approval of seed mixture.

1.07 DELIVERY, STORAGE, AND HANDLING

- A. Deliver grass seed mixture in sealed containers. Seed in damaged packaging is not acceptable. Deliver seed mixture in containers showing percentage of seed mix, year of production, net weight, date of packaging, and location of packaging.
- B. Deliver fertilizer in waterproof bags showing weight, chemical analysis, and name of manufacturer.

1.08 FIELD CONDITIONS

- A. Planting Restrictions: Plant during one of the following periods. Coordinate planting periods with initial maintenance periods to provide required maintenance from date of planting completion.
 - 1. Spring Planting: May 1 to June 15.
 - 2. Fall Planting: September 15 to October 1.
- B. Weather Limitations: Proceed with planting only when existing and forecasted weather conditions permit planting to be performed when beneficial and optimum results may be obtained. Apply products during favorable weather conditions according to manufacturer's written instructions.
- C. Temporary seeding: Adjust seeding for planting season. Install temporary seeding and mulching, and maintain, until such time permanent seeding can be completed during appropriate season and weather conditions.

PART 2 PRODUCTS

2.01 REGULATORY REQUIREMENTS

- A. Comply with regulatory agencies for fertilizer and herbicide composition.

2.02 SEED MIXTURE

- A. Seed Mixture:
 - 1. Kentucky Bluegrass (*Poa pratensis*): 40 percent.

2. Creeping Red Fescue Grass (*Festuca rubra* variety): 25 percent.
 3. Perennial Ryegrass (*Lolium perenne*): 15 percent.
 4. Tall Fescue Grass (*Festuca arundinacea*): 20 percent.
- B. Quality: State-certified seed of grass species as listed below for solar exposure.
- C. Quality: Seed of grass species as listed below for solar exposure, with not less than 85 percent germination, not less than 95 percent pure seed, and not more than 0.5 percent weed seed:
- D. Sun and Partial Shade: Proportioned by weight as indicated within 3.06 seeding.

2.03 SOIL MATERIALS

A. Topsoil:

1. Topsoil furnished by the contractor shall consist of natural friable surface soil without admixtures of undesirable soil, refuse, or foreign materials. It shall be reasonably free from roots, hard clay, coarse gravel, stones larger than 0.5 inches in any dimension, noxious weeds, tall grass, brush, sticks, stubble, or other material which would be detrimental to the proper development of vegetative growth.
2. Graded in accordance with ASTM C136/C136M, within the following limits:
 - a. 1 inch: 100 percent passing.
 - b. 0.5 inch: 95-100 percent passing.
 - c. No. 4: 75-100 percent passing.
 - d. No. 10: 60-100 percent passing.
 - e. No. 200: 10-60 percent passing.
3. Topsoil shall contain not less than 5%, or more than 25% organic matter, by weight as determined by loss-on-ignition of oven-dried samples in accordance with AASHTO T 267. Organic material shall be decomposed free of wood.
4. Free of roots, rocks larger than 1/2 inch, subsoil, debris, large weeds and foreign matter.
5. Acidity range (pH) of 5.5 to 7.5.
6. Conforming to ASTM D2487 Group Symbol OH.
7. Topsoil Source: Reuse surface soil stockpiled excavated and supplement with imported or manufactured topsoil from off-site sources when quantities are insufficient. Verify suitability of stockpiled surface soil to produce topsoil.

B. Inorganic Soil Amendments:

1. Lime: ASTM C602, Class T or O, agricultural limestone containing a minimum 80 percent calcium carbonate equivalent.
2. Sulfur: Granular, biodegradable, containing a minimum of 90 percent sulfur, with a minimum 99 percent passing through No. 6 (3.35-mm) sieve and a maximum 10 percent passing through No. 40 (0.425-mm) sieve.
3. Iron Sulfate: Granulated ferrous sulfate containing a minimum of 20 percent iron and 10 percent sulfur.
4. Aluminum Sulfate: Commercial grade, unadulterated.

C. Organic Soil Amendments

1. Compost: Well-composted, stable, and weed-free organic matter, pH range of 5.5 to 8.
2. Peat: Sphagnum peat moss, partially decomposed, finely divided or granular texture, with pH range of 3.4 to 4.8.
3. Peat: Finely divided or granular texture, with pH range of 6 to 7.5, containing partially decomposed moss peat, native peat, or reed-sedge peat and having water-absorbing capacity of 1100 to 2000 percent.
4. Wood Derivatives: Decomposed, nitrogen-treated sawdust, ground bark, or wood waste; of uniform texture, free of chips, stones, sticks, soil, or toxic materials.

2.04 ACCESSORIES

A. FERTILIZERS

1. Commercial Fertilizer: Commercial-grade complete fertilizer of neutral character, consisting of fast- and slow-release nitrogen, 50 percent derived from natural organic sources of urea formaldehyde, phosphorous, and potassium in the following composition:
 - a. Composition: Nitrogen, phosphorous, and potassium in amounts recommended in soil reports from a qualified soil-testing laboratory.
2. Slow-Release Fertilizer: Granular or pelleted fertilizer consisting of 50 percent water-insoluble nitrogen, phosphorus, and potassium in the following composition:
 - a. Composition: Nitrogen, phosphorous, and potassium in amounts recommended in soil reports from a qualified soil-testing laboratory.

B. MULCHES

1. Straw Mulch: Provide air-dry, clean, mildew- and seed-free, salt hay or threshed straw of wheat, rye, oats, or barley.

2. Sphagnum Peat Mulch: Partially decomposed sphagnum peat moss, finely divided or of granular texture, and with a pH range of 3.4 to 4.8.
3. Muck Peat Mulch: Partially decomposed moss peat, native peat, or reed-sedge peat, finely divided or of granular texture, with a pH range of 6 to 7.5, and having a water-absorbing capacity of 1100 to 2000 percent, and containing no sand.
4. Fiber Mulch: Biodegradable, dyed-wood, cellulose-fiber mulch; nontoxic and free of plant-growth or germination inhibitors; with a maximum moisture content of 15 percent and a pH range of 4.5 to 6.5.
5. Nonasphaltic Tackifier: Colloidal tackifier recommended by fiber-mulch manufacturer for slurry application; nontoxic and free of plant-growth or germination inhibitors.
6. Asphalt Emulsion: ASTM D977, Grade SS-1; nontoxic and free of plant-growth or germination inhibitors.

C. PESTICIDES

1. General: Pesticide, registered and approved by the EPA, acceptable to authorities having jurisdiction, and of type recommended by manufacturer for each specific problem and as required for Project conditions and application. Do not use restricted pesticides unless authorized in writing by authorities having jurisdiction.
2. Pre-Emergent Herbicide (Selective and Nonselective): Effective for controlling the germination or growth of weeds within planted areas at the soil level directly below the mulch layer.
3. Post-Emergent Herbicide (Selective and Nonselective): Effective for controlling weed growth that has already germinated.

2.05 EROSION-CONTROL MATERIALS

- A. Erosion-Control Blankets: Biodegradable wood excelsior, straw, or coconut-fiber mat enclosed in a photodegradable plastic mesh. Include manufacturer's recommended steel wire staples, 6 inches (150 mm) long.

2.06 TESTS

- A. Provide analysis of topsoil. Provide laboratory recommendations of quantity, weights, rates of lime and fertilizer to apply to topsoil to attain optimum growth of seed mixture.
- B. Analyze to ascertain percentage of nitrogen, phosphorus, potash, soluble salt content, organic matter content, and pH value.
- C. Testing is not required if recent tests are available for imported topsoil. Submit these test results to the testing laboratory for approval. Indicate, by test results, information necessary to determine suitability.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Examine areas to be planted for compliance with requirements and other conditions affecting installation and performance of the Work.
 - 1. Verify that no foreign or deleterious material or liquid such as paint, paint washout, concrete slurry, concrete layers or chunks, cement, plaster, oils, gasoline, diesel fuel, paint thinner, turpentine, tar, roofing compound, or acid has been deposited in soil within a planting area.
 - 2. Suspend planting operations during periods of excessive soil moisture until the moisture content reaches acceptable levels to attain the required results.
 - 3. Uniformly moisten excessively dry soil that is not workable or which is dusty.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.
- C. If contamination by foreign or deleterious material or liquid is present in soil within a planting area, remove the soil and contamination as directed by Engineer and replace with new planting soil.

3.02 PREPARATION

- A. Install edging at periphery of seeded areas in straight lines to consistent depth.
- B. Protect structures; utilities; sidewalks; pavements; and other facilities, trees, shrubs, and plantings from damage caused by planting operations.
 - 1. Protect adjacent and adjoining areas from hydroseeding and hydromulching overspray.
 - 2. Protect grade stakes set by others until directed to remove them.
- C. Install erosion-control measures to prevent erosion or displacement of soils and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways.
- D. Newly Graded Subgrades: Loosen subgrade to a minimum depth of 4 inches (100 mm). Remove stones larger than 1 inch (25 mm) in any dimension and sticks, roots, rubbish, and other extraneous matter and legally dispose of them off Owner's property.
 - 1. Apply superphosphate fertilizer directly to subgrade before loosening.
 - 2. Thoroughly blend planting soil mix off-site before spreading or spread topsoil, apply soil amendments and fertilizer on surface, and thoroughly blend planting soil mix.
 - 3. Spread planting soil mix to a depth of 4 inches (100 mm) but not less than required to meet finish grades after light rolling and natural settlement. Do not spread if planting soil or subgrade is frozen, muddy, or excessively wet.

- E. **Unchanged Subgrades:** If grasses are to be planted in areas unaltered or undisturbed by excavating, grading, or surface soil stripping operations, prepare surface soil as follows:
 - 1. Remove existing grass, vegetation, and turf. Do not mix into surface soil.
 - 2. Loosen surface soil to a depth of at least of 6 inches. Apply soil amendments and fertilizers according to planting soil mix proportions and mix thoroughly into top 6 inches of soil. Till soil to a homogeneous mixture of fine texture.
 - a. Apply fertilizer directly to surface soil before loosening.
 - 3. Remove stones larger than 2 inches in any dimension and sticks, roots, trash, and other extraneous matter.
 - 4. Legally dispose of waste material, including grass, vegetation, and turf, off Owner's property.
- F. **Finish Grading:** Grade planting areas to a smooth, uniform surface plane with loose, uniformly fine texture. Grade to within plus or minus 1/2 inch (13 mm) of finish elevation. Roll and rake, remove ridges, and fill depressions to meet finish grades. Limit fine grading to areas that can be planted in the immediate future.
- G. **Moisten prepared lawn areas before planting if soil is dry.** Water thoroughly and allow surface to dry before planting. Do not create muddy soil.
- H. **Restore areas if eroded or otherwise disturbed after finish grading and before planting.**

3.03 LIME

- A. Apply lime in accordance with manufacturers instructions at rates dictated by soil PH analysis.
- B. Spread uniformly prior to seeding.
- C. Rake, till, or disk to mix into topsoil before seeding.

3.04 FERTILIZING

- A. Apply fertilizer in accordance with manufacturer's instructions at application rates dictated by soil analysis testing.
- B. Apply after smooth raking of topsoil and prior to roller compaction.
- C. Do not apply fertilizer at same time or with same machine as will be used to apply seed.
- D. Mix thoroughly into upper 2 inches of topsoil.
- E. Lightly water to aid the dissipation of fertilizer.

3.05 SEEDING

- A. Apply seed at a rate of 6-8 lbs per 1000 sq ft evenly in two intersecting directions. Rake in lightly.
- B. Do not seed areas in excess of that which can be mulched on same day.
- C. Planting Season: See below.
 - 1. Spring Planting: May 1 to June 15.
 - 2. Fall Planting: September 15 to October 1.
- D. Do not sow immediately following rain, when ground is too dry, or during windy periods.
- E. Protect seeded areas with slopes exceeding 3H:1V with erosion-control blankets and stapled according to manufacturer's written instructions.
- F. Roll seeded area with roller not exceeding manufacture's seeding instructions.
- G. Immediately following seeding and compacting, apply mulch to a thickness of 1/8 inches. Maintain clear of shrubs and trees.
- H. Apply water with a fine spray immediately after each area has been mulched. Saturate to 4 inches of soil.
- I. Following germination, immediately re-seed areas without germinated seeds that are larger than 4 by 4 inches.

3.06 HYDROSEEDING

- A. Apply seeded slurry with a hydraulic seeder at a rate of 6-8 lbs per 1,000 sq ft evenly in two intersecting directions.
- B. Do not hydroseed area in excess of that which can be mulched on same day.
- C. Immediately following seeding, apply mulch to a thickness of 1/8 inches. Maintain clear of shrubs and trees.
- D. Apply water with a fine spray immediately after each area has been mulched. Saturate to 4 inches of soil.
- E. Following germination, immediately re-seed areas without germinated seeds that are larger than 4 by 4 inches.

3.07 PESTICIDE APPLICATION

- A. Apply pesticides and other chemical products and biological control agents according to requirements of authorities having jurisdiction and manufacturer's written recommendations. Coordinate applications with Owner's operations and others in proximity to the Work. Notify Owner before each application is performed.

- B. Post-Emergent Herbicides (Selective and Nonselective): Apply only as necessary to treat already-germinated weeds and according to manufacturer's written recommendations.

3.08 CLEANUP AND PROTECTION

- A. Promptly remove soil and debris created by turf work from paved areas. Clean wheels of vehicles before leaving site to avoid tracking soil onto roads, walks, or other paved areas.
- B. Remove surplus soil and waste material, including excess subsoil, unsuitable soil, trash, and debris, and legally dispose of them off Owner's property.
- C. Erect temporary fencing or barricades and warning signs as required to protect newly planted areas from traffic. Maintain fencing and barricades throughout initial maintenance period and remove after plantings are established.
- D. Remove nondegradable erosion-control measures after grass establishment period.

3.09 GRASS MAINTENANCE

- A. General: Maintain and establish grass by watering, fertilizing, weeding, mowing, trimming, replanting, and performing other operations as required to establish healthy, viable grass. Roll, regrade, and replant bare or eroded areas and remulch to produce a uniformly smooth grass. Provide materials and installation the same as those used in the original installation.
 - 1. Fill in as necessary soil subsidence that may occur because of settling or other processes. Replace materials and grass damaged or lost in areas of subsidence.
 - 2. In areas where mulch has been disturbed by wind or maintenance operations, add new mulch and anchor as required to prevent displacement.
 - 3. Apply treatments as required to keep grass and soil free of pests and pathogens or disease. Use integrated pest management practices whenever possible to minimize the use of pesticides and reduce hazards.
- B. Watering: Install and maintain temporary piping, hoses, and grass-watering equipment to convey water from sources and to keep grass uniformly moist to a depth of 4 inches (100 mm).
 - 1. Schedule watering to prevent wilting, puddling, erosion, and displacement of seed or mulch. Lay out temporary watering system to avoid walking over muddy or newly planted areas.
 - 2. Water grass with fine spray at a minimum rate of 1 inch (25 mm) per week unless rainfall precipitation is adequate.
- C. Mow grass as soon as top growth is tall enough to cut. Repeat mowing to maintain specified height without cutting more than one-third of grass height. Remove no more than one-third of grass-leaf growth in initial or subsequent mowings. Do not delay mowing until grass blades bend over and become matted. Do not mow when grass is wet. Schedule initial and subsequent

mowings to maintain the following grass height:

1. Mow Kentucky bluegrass, ryegrass and creeping red fescue to a height of 1-1/2 to 2 inches (38 to 50 mm).
- D. Grass Postfertilization: Apply commercial fertilizer or slow-release fertilizer after initial mowing and when grass is dry.
1. Use fertilizer that provides actual nitrogen of at least 1 lb/1000 sq. ft. (0.45 kg/92.9 sq. m) to grass area.

3.10 SATISFACTORY LAWN

- A. Grass installations shall meet the following criteria as determined by Engineer:
1. Satisfactory Seeded Lawn: At end of maintenance period, a healthy, uniform, close stand of grass has been established, free of weeds and surface irregularities, with coverage exceeding 90 percent over any 10 sq. ft. (0.92 sq. m) and bare spots not exceeding 5 by 5 inches (125 by 125 mm).
- B. Reestablish lawn areas that do not comply with requirements, and continue maintenance until grass is satisfactory.

END OF SECTION

**SECTION 32 9300
PLANTS**

PART 1 GENERAL

1.01 SUMMARY

- A. Section Includes:
 - 1. Trees
 - 2. Tree stabilization.
 - 3. Tree-watering devices.

1.02 REFERENCE STANDARDS

- A. ANSI Z60.1-2014 - American Standard for Nursery Stock; 2014.
- B. ASTM A641/A641M - Standard Specification for Zinc-Coated (Galvanized) Carbon Steel Wire; 2019.
- C. ASTM C602 - Standard Specification for Agricultural Liming Materials; 2023.
- D. AWWA U1 - Use Category System: User Specification for Treated Wood; 2023.

1.03 DEFINITIONS

- A. Backfill: The earth used to replace or the act of replacing earth in an excavation.
- B. Balled and Burlapped Stock: Plants and Trees dug with firm, natural balls of earth in which they were grown, with a ball size not less than diameter and depth recommended by ANSI Z60.1-2014 for type and size of plant required; wrapped with burlap, tied, rigidly supported, and drum laced with twine with the root flare visible at the surface of the ball as recommended by ANSI Z60.1-2014.
- C. Finish Grade: Elevation of finished surface of planting soil.
- D. Pesticide: A substance or mixture intended for preventing, destroying, repelling, or mitigating a pest. Pesticides include insecticides, miticides, herbicides, fungicides, rodenticides, and molluscicides. They also include substances or mixtures intended for use as a plant regulator, defoliant, or desiccant. Some sources classify herbicides separately from pesticides.
- E. Pests: Living organisms that occur where they are not desired or that cause damage to plants, animals, or people. Pests include insects, mites, grubs, mollusks (snails and slugs), rodents (gophers, moles, and mice), unwanted plants (weeds), fungi, bacteria, and viruses.
- F. Planting Area: Areas to be planted.
- G. Planting Soil: Existing, on-site soil; imported soil; or manufactured soil that has been modified with soil amendments and fertilizers to produce a soil mixture best for plant growth. Provide

soil amendments and fertilizers as recommended by nursery.

- H. Tree; Plants; Plant Material: These terms refer to vegetation in general, including trees, shrubs, vines, ground covers, ornamental grasses, bulbs, corms, tubers, or herbaceous vegetation.
- I. Root Flare: Also called "trunk flare." The area at the base of the plant's stem or trunk where the stem or trunk broadens to form roots; the area of transition between the root system and the stem or trunk.
- J. Stem Girdling Roots: Roots that encircle the stems (trunks) of trees below the soil surface.
- K. Subgrade: The surface or elevation of subsoil remaining after excavation is complete, or the top surface of a fill or backfill before planting soil is placed.

1.04 COORDINATION

- A. Coordination with Lawn Areas: Plant trees, shrubs, and other plants after finish grades are established and before planting turf areas unless otherwise indicated.
 - 1. When planting trees, shrubs, and other plants after planting turf areas, protect turf areas, and promptly repair damage caused by planting operations.

1.05 PREINSTALLATION MEETINGS

- A. Preinstallation Conference: Conduct conference at Project site.

1.06 ACTION SUBMITTALS

- A. Product Data: For each type of product.
 - 1. Tree Materials: Include quantities, sizes, quality, and sources for plant materials.
 - 2. Tree Photographs: Include color photographs in digital format of each required species and size of tree material as it will be furnished to Project. Take photographs from an angle depicting true size and condition of the typical tree to be furnished. Include a scale rod or other measuring device in each photograph. For species where more than 20 trees are required, include a minimum of three photographs showing the average tree, the best quality tree, and the worst quality tree to be furnished. Identify each photograph with the full scientific name of the tree, tree size, and name of the growing nursery.
- B. Slow-Release, Tree-Watering Device: One unit of each size required.

1.07 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For landscape Installer. Include list of similar projects completed by Installer demonstrating Installer's capabilities and experience. Include project names, addresses, and year completed, and include names and addresses of owners' contact persons.

- B. Product Certificates: For each type of manufactured product, from manufacturer, and complying with the following:
 - 1. Manufacturer's certified analysis of standard products.
 - 2. Analysis of other materials by a recognized laboratory made according to methods established by the Association of Official Analytical Chemists, where applicable.
- C. Pesticides and Herbicides: Product label and manufacturer's application instructions specific to Project.
- D. Sample Warranty: For special warranty.

1.08 CLOSEOUT SUBMITTALS

- A. Maintenance Data: Recommended procedures to be established by Owner for maintenance of plants during a calendar year. Submit before expiration of required maintenance periods.

1.09 QUALITY ASSURANCE

- A. Installer Qualifications: A qualified landscape installer whose work has resulted in successful establishment of plants.
 - 1. Professional Membership: Installer shall be a member in good standing of either the Professional Landcare Network or the American Nursery and Landscape Association.
 - 2. Experience: Three years' experience in landscape installation.
 - 3. Installer's Field Supervision: Require Installer to maintain an experienced full-time supervisor on Project site when work is in progress.
 - 4. Personnel Certifications: Installer's field supervisor or personnel assigned to the Work shall have certification in all of the following categories from the Professional Landcare Network:
 - a. Landscape Industry Certified Technician - Exterior.
 - 5. Pesticide Applicator: State licensed, commercial.
- B. Provide quality, size, genus, species, and variety of plants indicated, complying with applicable requirements in ANSI Z60.1-2014.
- C. Measurements: Measure according to ANSI Z60.1-2014. Do not prune to obtain required sizes.
 - 1. Trees and Shrubs: Measure with branches and trunks or canes in their normal position. Take height measurements from or near the top of the root flare for field-grown stock and container-grown stock. Measure main body of tree or shrub for height and spread; do not measure branches or roots tip to tip. Take caliper measurements 6 inches (150 mm) above the root flare for trees up to 4-inch (100-mm) caliper size, and 12 inches (300 mm) above

the root flare for larger sizes.

- D. Upon delivery to the site and prior to planting, all plant materials shall be inspected by the City's Arborist. Plant materials are subject to rejection by the City either at the time of delivery or after planting if they do not comply with the requirements of the contract documents
- E. Plant material substitutions: Substitutions or changes in the plant species will not be permitted without written approval from the City's Arborist.

1.10 DELIVERY, STORAGE, AND HANDLING

- A. Packaged Materials: Deliver packaged materials in original, unopened containers showing weight, certified analysis, name and address of manufacturer, and indication of compliance with state and Federal laws if applicable.
- B. Bulk Materials:
 - 1. Do not dump or store bulk materials near structures, utilities, walkways and pavements, or on existing turf areas or plants.
 - 2. Provide erosion-control measures to prevent erosion or displacement of bulk materials; discharge of soil-bearing water runoff; and airborne dust reaching adjacent properties, water conveyance systems, or walkways.
 - 3. Accompany each delivery of bulk materials with appropriate certificates.
- C. Do not prune trees and shrubs before delivery. Protect bark, branches, and root systems from sun scald, drying, wind burn, sweating, whipping, and other handling and tying damage. Do not bend or bind-tie trees or shrubs in such a manner as to destroy their natural shape. Provide protective covering of plants during shipping and delivery. Do not drop plants during delivery and handling.
- D. Handle planting stock by root ball.
- E. Apply antidesiccant to trees and shrubs using power spray to provide an adequate film over trunks (before wrapping), branches, stems, twigs, and foliage to protect during digging, handling, and transportation.
 - 1. If deciduous trees or shrubs are moved in full leaf, spray with antidesiccant at nursery before moving and again two weeks after planting.
- F. Wrap trees and shrubs with burlap fabric over trunks, branches, stems, twigs, and foliage to protect from wind and other damage during digging, handling, and transportation.

1.11 FIELD CONDITIONS

- A. Field Measurements: Verify actual grade elevations, service and utility locations, irrigation system components, and dimensions of plantings and construction contiguous with new plantings by field measurements before proceeding with planting work.

- B. Planting Restrictions: Plant during spring or fall planting season as determined by the species and dictated by the nursery. Coordinate planting periods with maintenance periods to provide required maintenance from date of Substantial Completion
- C. Weather Limitations: Proceed with planting only when existing and forecasted weather conditions permit planting to be performed when beneficial and optimum results may be obtained. Apply products during favorable weather conditions according to manufacturer's written instructions and warranty requirements.

1.12 WARRANTY

- A. Special Warranty: Installer agrees to repair or replace plantings and accessories that fail in materials, workmanship, or growth within specified warranty period.
 - 1. Failures include, but are not limited to, the following:
 - a. Death and unsatisfactory growth, except for defects resulting from abuse, lack of adequate maintenance, or neglect by Owner.
 - b. Structural failures including plantings falling or blowing over.
 - c. Faulty performance of tree stabilization.
 - d. Deterioration of metals, metal finishes, and other materials beyond normal weathering.
 - 2. Warranty Periods: From date of Substantial Completion
 - a. Trees, Shrubs, Vines, and Ornamental Grasses: 12 months.
 - 3. Include the following remedial actions as a minimum:
 - a. Immediately remove dead trees and replace unless required to plant in the succeeding planting season.
 - b. Replace trees that are more than 25 percent dead or in an unhealthy condition at end of warranty period.
 - c. Provide extended warranty for period equal to original warranty period, for replaced plant material.

PART 2 PRODUCTS

2.01 PLANT MATERIAL

- A. General: Furnish nursery-grown plants true to genus, species, variety, cultivar, stem form, shearing, and other features indicated in Plant List, Plant Schedule, or Plant Legend indicated on Drawings and complying with ANSI Z60.1-2014; and with healthy root systems developed by transplanting or root pruning. Provide well-shaped, fully branched, healthy, vigorous stock,

densely foliated when in leaf and free of disease, pests, eggs, larvae, and defects such as knots, sun scald, injuries, abrasions, and disfigurement.

1. Trees with damaged, crooked, or multiple leaders; tight vertical branches where bark is squeezed between two branches or between branch and trunk ("included bark"); crossing trunks; cut-off limbs more than 3/4 inch (19 mm) in diameter; or with stem girdling roots are unacceptable.
- B. Provide plants of sizes, grades, and ball or container sizes complying with ANSI Z60.1-2014 for types and form of plants required. Plants of a larger size may be used if acceptable to City Arborist, with a proportionate increase in size of roots or balls.
- C. Root-Ball Depth: Furnish trees and shrubs with root balls measured from top of root ball, which begins at root flare according to ANSI Z60.1-2014. Root flare shall be visible before planting.
- D. Labeling: Label at least one plant of each variety, size, and caliper with a securely attached, waterproof tag bearing legible designation of common name and full scientific name, including genus and species. Include nomenclature for hybrid, variety, or cultivar, if applicable for the plant.
- E. If formal arrangements or consecutive order of plants is indicated on Drawings, select stock for uniform height and spread, and number the labels to assure symmetry in planting.

2.02 SOIL MATERIALS

- A. Inorganic Soil Amendments:
 1. Lime: ASTM C602, Class T or O, agricultural limestone containing a minimum 80 percent calcium carbonate equivalent.
 2. Sulfur: Granular, biodegradable, containing a minimum of 90 percent sulfur, with a minimum 99 percent passing through No. 6 (3.35-mm) sieve and a maximum 10 percent passing through No. 40 (0.425-mm) sieve.
 3. Iron Sulfate: Granulated ferrous sulfate containing a minimum of 20 percent iron and 10 percent sulfur.
 4. Aluminum Sulfate: Commercial grade, unadulterated.

2.03 LIME

- A. Apply lime in accordance with manufacturers instructions at rates dictated by soil PH analysis.
- B. Spread uniformly prior to seeding.
- C. Rake, till, or disk to mix into topsoil before seeding.

2.04 FERTILIZERS

- A. Planting Tablets: Tightly compressed chip-type, long-lasting, slow-release, commercial-grade planting fertilizer in tablet form. Tablets shall break down with soil bacteria, converting nutrients into a form that can be absorbed by plant roots.
 - 1. Size: 21-gram tablets.
 - 2. Nutrient Composition: 20 percent nitrogen, 10 percent phosphorous, and 5 percent potassium, by weight plus micronutrients.

2.05 MULCHES

- A. Organic Mulch: Free from deleterious materials and suitable as a top dressing of trees and shrubs, consisting of one of the following:
 - 1. Type: Shredded hardwood
 - 2. Size Range: 3 inches (76 mm) maximum, 1/2-inch (13 mm) minimum.
 - 3. Color: Natural.

2.06 PESTICIDES

- A. General: Pesticide registered and approved by the EPA, acceptable to authorities having jurisdiction, and of type recommended by manufacturer for each specific problem and as required for Project conditions and application. Do not use restricted pesticides unless authorized in writing by authorities having jurisdiction.
- B. Pre-Emergent Herbicide (Selective and Nonselective): Effective for controlling the germination or growth of weeds within planted areas at the soil level directly below the mulch layer.
- C. Post-Emergent Herbicide (Selective and Nonselective): Effective for controlling weed growth that has already germinated.

2.07 TREE-STABILIZATION MATERIALS

- A. Trunk-Stabilization Materials:
 - 1. Upright and Guy Stakes: Rough-sawn, sound, new hardwood, free of knots, holes, cross grain, and other defects, 2-by-2-inch nominal (38-by-38-mm actual) by length indicated, pointed at one end. (minimum of 3 per tree)
 - 2. Flexible Ties: Wide rubber or elastic bands or straps of length required to reach stakes or turnbuckles
 - 3. Guys and Tie Wires: ASTM A641/A641M, Class 1, galvanized-steel wire, two-strand, twisted, 0.106 inch (2.7 mm) in diameter.
 - 4. Tree-Tie Webbing: UV-resistant polypropylene or nylon webbing with brass grommets.

5. Guy Cables: Five-strand, 3/16-inch- (4.8-mm-) diameter, galvanized-steel cable, with zinc-coated turnbuckles a minimum of 3 inches (75 mm) long, with two 3/8-inch (10-mm) galvanized eyebolts.
6. Flags: Standard surveyor's plastic flagging tape, white, 6 inches (150 mm) long.
7. Proprietary Staking-and-Guying Devices: Proprietary stake or anchor and adjustable tie systems to secure each new planting by plant stem; sized as indicated and according to manufacturer's written recommendations.

2.08 MISCELLANEOUS PRODUCTS

- A. Wood Pressure-Preservative Treatment: AWWPA U1, Use Category UC4a; acceptable to authorities having jurisdiction, and containing no arsenic or chromium.
- B. Root Barrier: Black, molded, modular panels 18 inches (457 mm) high (deep), 85 mils (2.2 mm) thick, and with vertical root deflecting ribs protruding 3/4 inch (19 mm) out from panel surface; manufactured with minimum 50 percent recycled polyethylene plastic with UV inhibitors.
- C. Antidesiccant: Water-insoluble emulsion, permeable moisture retarder, film forming, for trees and shrubs. Deliver in original, sealed, and fully labeled containers and mix according to manufacturer's written instructions.
- D. Burlap: Non-synthetic, biodegradable.
- E. Mycorrhizal Fungi: Dry, granular inoculant containing at least 5300 spores per lb (0.45 kg) of vesicular-arbuscular mycorrhizal fungi and 95 million spores per lb (0.45 kg) of ectomycorrhizal fungi, 33 percent hydrogel, and a maximum of 5.5 percent inert material.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Examine areas to receive plants, with Installer present, for compliance with requirements and conditions affecting installation and performance of the Work.
 1. Verify that no foreign or deleterious material or liquid such as paint, paint washout, concrete slurry, concrete layers or chunks, cement, plaster, oils, gasoline, diesel fuel, paint thinner, turpentine, tar, roofing compound, or acid has been deposited in soil within a planting area.
 2. Verify that plants and vehicles loaded with plants can travel to planting locations with adequate overhead clearance.
 3. Suspend planting operations during periods of excessive soil moisture until the moisture content reaches acceptable levels to attain the required results.
 4. Uniformly moisten excessively dry soil that is not workable or which is dusty.

- B. If contamination by foreign or deleterious material or liquid is present in soil within a planting area, remove the soil and contamination as directed by City Arborist and replace with new planting soil.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.02 PREPARATION

- A. Protect structures, utilities, sidewalks, pavements, and other facilities and turf areas and existing plants from damage caused by planting operations.
- B. Install erosion-control measures to prevent erosion or displacement of soils and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways.
- C. Lay out individual tree and shrub locations and areas for multiple plantings. Stake locations, outline areas, adjust locations when requested, and obtain City Arborist's acceptance of layout before excavating or planting. Make minor adjustments as required.
- D. Lay out plants at locations directed by City Arborist. Stake locations of individual trees and shrubs and outline areas for multiple plantings.

3.03 PLANTING AREA ESTABLISHMENT

- A. General: Prepare planting area for soil placement and mix planting soil according to the details.
- B. Placing Planting Soil: Place, amend and mix planting soil in-place over exposed subgrade.
- C. Before planting, obtain City Arborist's acceptance of finish grading; restore planting areas if eroded or otherwise disturbed after finish grading.
- D. Application of Mycorrhizal Fungi: At time directed by City Arborist, broadcast dry product uniformly over prepared soil at application rate according to manufacturer's written recommendations.

3.04 EXCAVATION FOR TREES AND SHRUBS

- A. Planting Pits and Trenches: Excavate circular planting pits.
 - 1. Excavate planting pits with sides sloping inward at a 45-degree angle. Excavations with vertical sides are unacceptable. Trim perimeter of bottom leaving center area of bottom raised slightly to support root ball and assist in drainage away from center. Do not further disturb base. Ensure that root ball will sit on undisturbed base soil to prevent settling. Scarify sides of planting pit smeared or smoothed during excavation.
 - 2. Excavate approximately three times as wide as ball diameter for balled and burlapped stock.
 - 3. Excavate at least 12 inches (300 mm) wider than root spread and deep enough to accommodate vertical roots for bare-root stock.

4. Do not excavate deeper than depth of the root ball, measured from the root flare to the bottom of the root ball.
 5. If area under the plant was initially dug too deep, add soil to raise it to the correct level and thoroughly tamp the added soil to prevent settling.
 6. Maintain angles of repose of adjacent materials to ensure stability. Do not excavate subgrades of adjacent paving, structures, hardscapes, or other new or existing improvements.
 7. Maintain supervision of excavations during working hours.
 8. Keep excavations covered or otherwise protected when unattended by Installer's personnel.
- B. Backfill Soil: Subsoil and topsoil removed from excavations may be used as backfill soil unless otherwise indicated.
- C. Obstructions: Notify City Arborist if unexpected rock or obstructions detrimental to trees or shrubs are encountered in excavations.
1. Hardpan Layer: Drill 6-inch- (150-mm-) diameter holes, 24 inches (600 mm) apart, into free-draining strata or to a depth of 10 feet (3 m), whichever is less, and backfill with free-draining material.
- D. Fill excavations with water and allow to percolate away before positioning trees and shrubs.

3.05 TREE PLANTING

- A. Inspection: At time of planting, verify that root flare is visible at top of root ball according to ANSI Z60.1-2014. If root flare is not visible, remove soil in a level manner from the root ball to where the top-most root emerges from the trunk. After soil removal to expose the root flare, verify that root ball still meets size requirements.
- B. Roots: Remove stem girdling roots and kinked roots. Remove injured roots by cutting cleanly; do not break.
- C. Balled and Burlapped Stock: Set each plant plumb and in center of planting pit or trench with root flare 1 inch (25 mm) above adjacent finish grades.
1. Backfill: Planting soil for trees, use excavated soil for backfill.
 2. After placing some backfill around root ball to stabilize plant, carefully cut and remove burlap, rope, and wire baskets from tops of root balls and from sides, but do not remove from under root balls. Remove pallets, if any, before setting. Do not use planting stock if root ball is cracked or broken before or during planting operation.
 3. Backfill around root ball in layers, tamping to settle soil and eliminate voids and air pockets. When planting pit is approximately one-half filled, water thoroughly before

placing remainder of backfill. Repeat watering until no more water is absorbed.

4. Place planting tablets equally distributed around each planting pit when pit is approximately one-half filled. Place tablets beside the root ball about 1 inch (25 mm) from root tips; do not place tablets in bottom of the hole.
 - a. Quantity: As indicated on Drawings
5. Continue backfilling process. Water again after placing and tamping final layer of soil.

3.06 TREE PRUNING

- A. Remove only dead, dying, or broken branches. Do not prune for shape.
- B. Prune, thin, and shape trees according to standard professional horticultural and arboricultural practices. Unless otherwise indicated by City Arborist, do not cut tree leaders; remove only injured, dying, or dead branches from trees and shrubs; and prune to retain natural character.
- C. Do not apply pruning paint to wounds.

3.07 TREE STABILIZATION

- A. Trunk Stabilization by Upright Staking and Tying: Install trunk stabilization as follows unless otherwise indicated:
 1. Upright Staking and Tying: Stake trees of 2- through 5-inch (50- through 125-mm) caliper. Stake trees of less than 2-inch (50-mm) caliper only as required to prevent wind tip out. Use a minimum of three stakes of length required to penetrate at least 24 inches (450 mm) below bottom of backfilled excavation and to extend at least 72 inches (1830 mm) above grade. Set vertical stakes and space to avoid penetrating root balls or root masses.
 2. Support trees with bands of flexible ties at contact points with tree trunk. Allow enough slack to avoid rigid restraint of tree.
 3. Support trees with two strands of tie wire, connected to the brass grommets of tree-tie webbing at contact points with tree trunk. Allow enough slack to avoid rigid restraint of tree.

3.08 PESTICIDE APPLICATION

- A. Apply pesticides and other chemical products and biological control agents according to authorities having jurisdiction and manufacturer's written recommendations. Coordinate applications with Owner's operations and others in proximity to the Work. Notify Owner before each application is performed.
- B. Pre-Emergent Herbicides (Selective and Nonselective): Apply to tree, shrub, and ground-cover areas according to manufacturer's written recommendations. Do not apply to seeded areas.

- C. Post-Emergent Herbicides (Selective and Nonselective): Apply only as necessary to treat already-germinated weeds and according to manufacturer's written recommendations.

3.09 REPAIR AND REPLACEMENT

- A. General: Repair or replace existing or new trees and other plants that are damaged by construction operations, in a manner approved by City Arborist.
 - 1. Submit details of proposed pruning and repairs.
 - 2. Perform repairs of damaged trunks, branches, and roots within 24 hours, if approved.
 - 3. Replace trees and other plants that cannot be repaired and restored to full-growth status, as determined by City Arborist.
- B. Remove and replace trees that are more than 25 percent dead or in an unhealthy condition before the end of the corrections period or are damaged during construction operations that Architect determines are incapable of restoring to normal growth pattern.
 - 1. Provide new trees of same size as those being replaced for each tree of 6 inches (150 mm) or smaller in caliper size.
 - 2. Provide one new tree of 6-inch (150-mm) caliper size for each tree being replaced that measures more than 6 inches (150 mm).
 - 3. Species of Replacement Trees: Same species being replaced.

3.10 CLEANING AND PROTECTION

- A. During planting, keep adjacent paving and construction clean and work area in an orderly condition. Clean wheels of vehicles before leaving site to avoid tracking soil onto roads, walks, or other paved areas.
- B. Remove surplus soil and waste material including excess subsoil, unsuitable soil, trash, and debris and legally dispose of them off Owner's property.
- C. Protect plants from damage due to landscape operations and operations of other contractors and trades. Maintain protection during installation and maintenance periods. Treat, repair, or replace damaged plantings.
- D. After installation and before Substantial Completion, remove nursery tags, nursery stakes, tie tape, labels, wire, burlap, and other debris from plant material, planting areas, and Project site.
- E. At time of Substantial Completion, verify that tree-watering devices are in good working order and leave them in place. Replace improperly functioning devices.

3.11 MAINTENANCE SERVICE

- A. Maintenance Service for Trees and Shrubs: Provide maintenance by skilled employees of landscape Installer. Maintain as required in "Plant Maintenance" Article. Begin maintenance immediately after plants are installed and continue until plantings are acceptably healthy and well established, but for not less than maintenance period below:

- 1. Maintenance Period: Three months from date of planting completion.

END OF SECTION

**SECTION 33 0561
CONCRETE MANHOLES**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Precast concrete manholes.
- B. Grade adjustments.
- C. Frames and covers.

1.02 RELATED REQUIREMENTS

- A. Section 33 3113 - Site Sanitary Sewerage Gravity Piping.
- B. Section 33 4211 - Stormwater Gravity Piping.
- C. Section 33 4230 - Stormwater Drains.

1.03 REFERENCE STANDARDS

- A. ASTM A48/A48M - Standard Specification for Gray Iron Castings; 2022.
- B. ASTM C270 - Standard Specification for Mortar for Unit Masonry; 2019a, with Editorial Revision.
- C. ASTM C478/C478M - Standard Specification for Circular Precast Reinforced Concrete Manhole Sections; 2020.
- D. ASTM C923/C923M - Standard Specification for Resilient Connectors Between Reinforced Concrete Manhole Structures, Pipes, and Laterals; 2020.
- E. ASTM C990 - Standard Specification for Joints for Concrete Pipe, Manholes, and Precast Box Sections Using Preformed Flexible Joint Sealants; 2009 (Reapproved 2019).

1.04 ADMINISTRATIVE REQUIREMENTS

- A. Coordination: Installation of concrete manholes with piping and other structures.
 - 1. See Section 33 3113 for site sanitary sewerage gravity piping.
 - 2. See Section 33 4211 for stormwater gravity piping.
 - 3. See Section 33 4230 for stormwater drains.
- B. Sequencing: Ensure that utility connections are achieved in an orderly and expeditious manner.

1.05 SUBMITTALS

- A. Product Data: Provide manhole covers, component construction, features, configuration, and dimensions.
- B. Shop Drawings: Indicate manhole locations, elevations, piping sizes and elevations of penetrations.
- C. Manufacturer's Installation Instructions: Indicate special procedures for assembly.
- D. Manufacturer's qualification statement.
- E. Manufacturer's Certificate: Certify that products meet or exceed specified requirements.
- F. Field Quality Control Submittals: Document results of field quality control testing.
- G. Project Record Documents:
 - 1. Record invert elevations of concrete manholes.
 - 2. Identify and describe unexpected variations to subsoil conditions or discovery of uncharted utilities.

1.06 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section with minimum three years documented experience.

PART 2 PRODUCTS

2.01 CONCRETE MANHOLES

- A. Precast Concrete Manholes: Comply with ASTM C478/C478M, reinforced.
 - 1. Wall Thickness: 5 inches.
 - 2. Base Thickness: 8 inches.
 - 3. Cone Thickness: 5 inches.
 - 4. Lid Thickness: 6 inches.
 - 5. Reinforcement: Formed steel wire.
 - 6. Joint Sealant: Comply with ASTM C990.
 - 7. Resilient Connectors: Comply with ASTM C923/C923M.
- B. Grade Adjustments:
 - 1. Adjustment Ring: Precast Concrete or Expanded polypropylene, 6 inches (152 mm) wide, diameter matching frame dimensions, in accordance with ASTM C478/C478M.

C. Mortar Mixing:

1. Ready Mixed Mortar: Type equivalent to that specified according to ASTM C270.
2. Thoroughly mix mortar ingredients in accordance with ASTM C270 and in quantities needed for immediate use.
3. Maintain sand uniformly damp immediately before the mixing process.
4. Do not use antifreeze compounds to lower the freezing point of mortar.

D. Frame and Cover: Cast iron construction, ASTM A48/A48M Class 30B, machined flat bearing surface.

2.02 ACCESSORIES

A. Steps: Copolymer Polypropylene Plastic with steel reinforcement rungs; Formed integral with manhole sections.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify items provided by other sections of work are properly sized and located.
- B. Verify that built-in items are in proper location, and ready for roughing into Work.
- C. Verify excavation for manholes is correct.

3.02 PREPARATION

A. Coordinate placement of inlet and outlet pipe or duct sleeves required by other sections.

3.03 EXCAVATION AND FILL

- A. Hand trim excavation for accurate placement to indicated elevations.
- B. Backfill with cover fill, tamp in place and compact, then complete backfilling.

3.04 INSTALLATION

- A. Establish elevations and pipe inverts for inlets and outlets as indicated in drawings.
- B. Precast Concrete Manholes:
 1. Place base section plumb and level.
 2. Install joint sealant uniformly around section lip.
 3. Overlay additional sections on joint sealant.
 4. Install cone or lid plumb and level on joint sealant.

C. Grade Adjustments:

1. Lay concrete ring on mortar bed, plumb and level. Top with mortar, plumb and level.
2. Place adjacent materials tight, and smooth following design grades.

D. Frames and Covers:

1. Place frame plumb and level.
2. Mount frame on mortar bed at indicated elevation.
3. Mount frame on grade ring according to manufacturer's instructions.
4. Place grate in frame securely.

3.05 FIELD QUALITY CONTROL

- A. Perform field inspection for pipe invert elevations.
- B. Leakage Test: Test in accordance with [City of Watertown General Specifications].
- C. If inspections indicate work does not meet specified requirements, adjust work and reinspect at no cost to Owner.

END OF SECTION

SECTION 33 1416
SITE WATER UTILITY DISTRIBUTION

PART 1 GENERAL

1.01 SUMMARY

- A. Water distribution piping and related components outside the building for domestic watermains and services.
- B. Corporation Stops and Curb Stops
- C. Fire Hydrants
- D. Valves

1.02 RELATED REQUIREMENTS

- A. Section 31 2323 - Fill: Fill materials, backfilling, and compacting.
- B. Section 31 2323 - Fill: Fill materials, backfilling, and compacting.

1.03 REFERENCE STANDARDS

- A. ASME B16.1 - Gray Iron Pipe Flanges and Flanged Fittings: Classes 25, 125, and 250; 2020.
- B. ASTM A674 - Standard Practice for Polyethylene Encasement for Ductile Iron Pipe; 2022.
- C. ASTM B88 - Standard Specification for Seamless Copper Water Tube; 2022.
- D. AWWA C104/A21.4 - Cement-Mortar Lining for Ductile Iron Pipe and Fittings; 2022.
- E. AWWA C105/A21.5 - Polyethylene Encasement for Ductile-Iron Pipe Systems; 2018.
- F. AWWA C110/A21.10 - Ductile-Iron and Gray-Iron Fittings; 2021.
- G. AWWA C111/A21.11 - Rubber-Gasket Joints for Ductile-Iron Pressure Pipe and Fittings; 2023.
- H. AWWA C150/A21.50 - Thickness Design of Ductile-Iron Pipe; 2021 (Reaffirmed 2023).
- I. AWWA C151/A21.51 - Ductile-Iron Pipe, Centrifugally Cast; 2017, with Errata (2018).
- J. AWWA C153/A21.53 - Ductile-Iron Compact Fittings; 2019.
- K. AWWA C500 - Metal-Seated Gate Valves for Water Supply Service; 2019.
- L. AWWA C502 - Dry-Barrel Fire Hydrants; 2018.
- M. AWWA C509 - Resilient-Seated Gate Valves for Water Supply Service; 2023.
- N. AWWA C550 - Protective Interior Coatings for Valves and Hydrants; 2017.

- O. AWWA C600 - Installation of Ductile-Iron Mains and Their Appurtenances; 2023.
- P. AWWA C651 - Disinfecting Water Mains; 2023.
- Q. AWWA C800 - Underground Service Line Valves and Fittings; 2021.
- R. AWWA M17 - Fire Hydrants: Installation, Field Testing, and Maintenance; 2016.
- S. AWWA M41 - Ductile-Iron Pipe and Fittings; 2009.
- T. AWWA M44 - Distribution Valves: Selection, Installation, Field Testing, and Maintenance; 2016.
- U. MSS SP-60 - Connecting Flange Joints Between Tapping Sleeves and Tapping Valves; 2021.
- V. NFPA 1963 - Standard for Fire Hose Connections; 2019.
- W. NSF 372 - Drinking Water System Components - Lead Content; 2022.
- X. NSF 61 - Drinking Water System Components - Health Effects; 2023, with Errata.

1.04 DEFINITIONS

- A. CI: Cast Iron Pipe
- B. DIP: Ductile Iron Pipe
- C. Copper: Copper Service Pipe

1.05 ACTION SUBMITTALS

- A. Product Data: For each type of product indicated.

1.06 QUALITY ASSURANCE

- A. Regulatory Requirements:
 - 1. Comply with requirements of utility company supplying water. Include tapping of water mains and backflow prevention.
 - 2. Comply with standards of authorities having jurisdiction for potable-water-service piping, including materials, installation, testing, and disinfection.
 - 3. Comply with standards of authorities having jurisdiction for fire-suppression water-service piping, including materials, hose threads, installation, and testing.
- B. Piping materials shall bear label, stamp, or other markings of specified testing agency.
- C. NFPA Compliance: Comply with NFPA 24 for materials, installations, tests, flushing, and valve and hydrant supervision.

1. Potable-water piping and components shall comply with NSF 14, NSF 61, and NSF 372.

D. References:

1. AWWA C111/A21.11 - Rubber-Gasket Joints for Ductile-Iron Pressure Pipe and Fittings; American Water Works Association; 2017.
2. AWWA C502 - Dry Barrel Fire Hydrants; American Water Works Association; 2018.
3. AWWA C509 - Resilient-Seated Gate Valves for Water Supply Service; American Water Works Association; 2015.
4. UL 246 - Standard for Safety Hydrants for Fire-Protection Service; Underwriters Laboratories Inc.; 2018.

1.07 DELIVERY, STORAGE, AND HANDLING

- A. Preparation for Transport: Prepare valves, including fire hydrants, according to the following:
1. Ensure that valves are dry and internally protected against rust and corrosion.
 2. Protect valves against damage to threaded ends and flange faces.
 3. Set valves in best position for handling. Set valves closed to prevent rattling.
- B. During Storage: Use precautions for valves, including fire hydrants, according to the following:
1. Do not remove end protectors unless necessary for inspection; then reinstall for storage.
 2. Protect from weather. Store indoors and maintain temperature higher than ambient dew-point temperature. Support off the ground or pavement in watertight enclosures when outdoor storage is necessary.
- C. Handling: Use sling to handle valves and fire hydrants if size requires handling by crane or lift. Rig valves to avoid damage to exposed parts. Do not use hand wheels or stems as lifting or rigging points.
- D. Deliver piping with factory-applied end caps. Maintain end caps through shipping, storage, and handling to prevent pipe-end damage and to prevent entrance of dirt, debris, and moisture.
- E. Protect stored piping from moisture and dirt. Elevate above grade. Do not exceed structural capacity of floor when storing inside.
- F. Protect flanges, fittings, and specialties from moisture and dirt.
- G. Store plastic piping protected from direct sunlight. Support to prevent sagging and bending.

1.08 PROJECT CONDITIONS

- A. Interruption of Existing Water-Distribution Service: Do not interrupt service to facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary water-distribution service according to requirements indicated:
 - 1. Notify Owner and City Water Department no fewer than 3 days in advance of proposed interruption of service.
 - 2. Do not proceed with interruption of water-distribution service without Engineer's written permission.

1.09 COORDINATION

- A. Coordinate connection to water main with City of Watertown

PART 2 PRODUCTS

2.01 DUCTILE-IRON PIPE AND FITTINGS (CLASS 52- CITY OF WATERTOWN:)

- A. Mechanical-Joint, Ductile-Iron Pipe: AWWA C151/A21.51, with mechanical-joint bell and plain spigot end unless grooved or flanged ends are indicated.
 - 1. Mechanical-Joint, Ductile-Iron Fittings: AWWA C110/A21.10, ductile- or gray-iron standard pattern or AWWA C153/A21.53, ductile-iron compact pattern.
 - 2. Glands, Gaskets, and Bolts: AWWA C111/A21.11, ductile- or gray-iron glands, rubber gaskets, and steel bolts.
- B. Push-on-Joint, Ductile-Iron Pipe: AWWA C151/A21.51, with push-on-joint bell and plain spigot end unless grooved or flanged ends are indicated.
 - 1. Push-on-Joint, Ductile-Iron Fittings: AWWA C110/A21.10, ductile- or gray-iron standard pattern or AWWA C153/A21.53, ductile-iron compact pattern.
 - 2. Gaskets: AWWA C111/A21.11, rubber gaskets.
 - 3. Bronze Wedges: provide a minimum of four bronze wedges at each push-on joint.
- C. Flanges: ASME B16.1, Class 125, cast iron.
- D. Pipe: Designed in accordance to latest revision of AWWA C150/A21.50 for a minimum 150 psi working pressure plus a 100 psi surge allowance. Ductile Iron Pipe shall be manufactured in accordance with the latest revision of AWWA C151/A21.51. Each pipe shall be subjected to a hydrostatic pressure test of at least 500 psi at the point of manufacture. Pipe shall have standard coating on the exterior. Pipe shall also have a cement-mortar lining on the interior in accordance with AWWA C104/A21.4, of latest revision.

2.02 COPPER TUBE AND FITTINGS

- A. Soft Copper Tube: ASTM B88, Type K, water tubes, annealed temper.
 - 1. Copper Pressure - Seal Fittings
 - a. NPS 2 (DN50) and smaller: Wrought - copper fitting with EPDM O-ring seal in each end.

2.03 JOINING MATERIALS

- A. Flange, Gaskets, Bolts, and Nuts: Type and material recommended by piping system manufacturer, unless otherwise indicated.

2.04 PIPING SPECIALTIES

- A. Transition Fittings: Manufactured fitting or coupling same size as, with pressure rating at least equal to and ends compatible with, piping to be joined.
- B. Tubular-Sleeve Pipe Couplings:
 - 1. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - a. Mueller Co.; Water Products Div.
 - b. Dresser, Inc.; Dresser Piping Specialties.
 - c. Ford Meter Box Company, Inc. (The); Pipe Products Div.
 - d. Smith-Blair, Inc.
 - e. Description: Metal, bolted, sleeve-type, reducing or transition coupling, with center sleeve, gaskets, end rings, and bolt fasteners and with ends of same sizes as piping to be joined.
 - 1) Center-Sleeve Material: Manufacturer's standard, Carbon steel, Stainless steel, or ductile iron.
 - 2) Pressure Rating: 250 psig (1725 kPa) minimum.
- C. Mechanical Joint Restraints: Comply with AWWA C600 and ASTM D2774 . Include gland body, wedges, and wedge actuating components, matching pipe sizes.
 - 1. EBAA Iron, Inc; Water Products Div.
 - a. Megalug series 1100 or approved equal.

2.05 GATE VALVES

- A. AWWA, Cast-Iron Gate Valves:

1. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - a. McWane, Inc.; Clow Valve Co. Div. (Oskaloosa).
 - b. McWane, Inc.; Kennedy Valve Div.
 - c. Mueller Co.; Water Products Div.
 - d. U.S. Pipe and Foundry Company.
 - e. Nonrising-Stem, Resilient-Seated Gate Valves:
 - 1) Description: Gray- or ductile-iron body and bonnet; with bronze or gray- or ductile-iron gate, resilient seats, bronze stem, and stem nut.
 - (a) Standard: AWWA C509.
 - (b) Minimum Pressure Rating: 250 psig (1380 kPa).
 - (c) End Connections: Mechanical joint.
 - (d) Interior Coating: Complying with AWWA C550.
 - (e) Gate Valve shall be “open right” (City of Watertown).

2.06 GATE VALVE ACCESSORIES AND SPECIALTIES

A. Tapping-Sleeve Assemblies:

1. Available Manufactures: City of Watertown standard or approved equal
 - a. Mueller Co.; Water Products Div.
 - b. Description: Sleeve and valve compatible with drilling machine.
 - 1) Standard: MSS SP-60.
 - 2) Tapping Sleeve: Cast- or ductile-iron, two-piece bolted sleeve with flanged outlet for new branch connection. Include sleeve matching size and type of pipe material being tapped and with recessed flange for branch valve.
 - 3) Valve: AWWA, cast-iron, nonrising-stem, resilient-seated gate valve with one raised face flange mating tapping-sleeve flange.

- B. Valve Boxes: Comply with AWWA M44 for cast-iron valve boxes. Include screw type extension with 5 inch inside diameter, adjustable extension of length required for depth of burial of valve, plug cover with lettering "WATER" and valve open direction cast into cover, and bottom section with base that fits over valve and with a barrel approximately 5 inches (125

mm) in diameter.

2.07 CORPORATION VALVES AND CURB VALVES

- A. Corp Valves: Comply with AWWA C800. Include bronze body, ball, and wide tee head, with inlet and outlet matching service piping material.
 - 1. Available Manufacturers: City of Watertown standard or approved equal
 - a. Mueller Co.; Water Products Div.
 - 1) Mueller 300 series with with threaded inlet end and Mueller 110 compression connection on outlet or approved equal.
- B. Curb Valves: Comply with AWWA C800. Include bronze body, ball, and wide tee head, with inlet and outlet matching service piping material.
 - 1. Available Manufacturers: City of Watertown standard or approved equal
 - a. Mueller Co.; Water Products Div.
 - 1) Mueller 300 series with Mueller 110 compression connection or approved equal.
- C. Service Boxes for Curb Valves: Similar to AWWA M44 requirements for cast-iron valve boxes. Include cast-iron telescoping type adjustment top section of length required for depth of burial of valve, plug with lettering "WATER," and bottom section with base that fits over curb valve and with a barrel approximately 2 inches (75 mm) in diameter.
 - 1. Available Manufacturers: City of Watertown standard or approved equal
 - a. Mueller Co.; Water Products Div.
 - 1) Mueller H-10310/H-10316 or approved equal

2.08 FIRE HYDRANTS

- A. Dry-Barrel Fire Hydrants:
 - 1. Available Manufacturers: City of Watertown standard or approved equal
 - a. McWane, Inc.; Kennedy Valve Div.
 - 1) Kennedy Guardian K81 (City of Watertown) or approved equal.
 - b. Description: Freestanding, with one NPS 4-1/2 (DN 115) and two NPS 2-1/2 (DN 65) outlets, 5-1/4-inch (133-mm) main valve, drain valve, and NPS 6 (DN 150) mechanical-joint inlet. Include interior coating according to AWWA C550. Hydrant shall have cast-iron body, compression-type valve opening against pressure and closing with pressure.

- 1) Standard: AWWA C502.
- 2) Standards: UL 246, FMG approved.
- 3) Pressure Rating: 250 psig (1725 kPa)
- 4) Outlet Threads: NFPA 1963, with external hose thread used by local fire department. Include cast-iron caps with steel chains.
- 5) Operating and Cap Nuts: Pentagon, 1-1/2 inches (38 mm) point to flat.
- 6) Direction of Opening: Open hydrant valve by turning operating nut to left or counterclockwise.
- 7) Exterior Finish: Primer and two coats of alkyd gloss international orange enamel to match City Standard hydrant color.
- 8) Storz connection shall be provided on Pumper Nozzle.

2.09 POLYETHYLENE ENCASEMENT

- A. Provide minimum 8 mil, group 2, linear low density, flat tube, virgin polyethylene film in accordance with AWWA C105-10.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Inspect Pipe and fittings as they arrive on site and remove any defective materials from the site.
- B. Verify that service connection and utility water pipe size, type, location, and invert are as indicated.

3.02 PIPING APPLICATIONS

- A. General: Use pipe, fittings, and joining methods for piping systems according to the following applications.
- B. Transition couplings and special fittings with pressure ratings at least equal to piping pressure rating may be used, unless otherwise indicated.
- C. Do not use flanges or unions for underground piping.
- D. Underground water-service piping NPS 3/4 to NPS 3 shall be the following:
 1. Soft copper tube, ASTM B88, Type K copper, pressure-seal fittings; and pressure-sealed joints.
- E. Underground water-service piping NPS 4 to NPS 8 shall be the following:
 1. Ductile-iron, push-on-joint pipe; ductile-iron, push-on-joint fittings; and gasketed joints.

3.03 VALVE APPLICATIONS

- A. General Application: Use mechanical-joint-end valves for NPS 3 (DN 80) and larger underground installation. Use corporation valves and curb valves with ends compatible with piping, for NPS 2 (DN 50) and smaller installation.
- B. Drawings indicate valve types to be used. Where specific valve types are not indicated, the following requirements apply.
 - 1. Underground Valves, NPS 3 (DN 80) and Larger: AWWA, cast-iron, nonrising-stem, resilient-seated gate valves with valve box.

3.04 PIPING INSTALLATION

- A. Water-Main Connection: Arrange with City of Watertown, Water Department for tap of size and in location indicated for water main.
- B. Water-Main Connection: Tap water main according to requirements of City of Watertown, Water Department and of size and in location indicated.
- C. Install copper tube and fittings according to CDA's "Copper Tube Handbook"
- D. Make connections larger than NPS 2 (DN 50) with tapping machine according to the following:
 - 1. Install tapping sleeve and tapping valve according to MSS SP-60.
 - 2. Install tapping sleeve and tapping valve on pipe to be tapped.
 - 3. Use tapping machine compatible with valve and tapping sleeve; cut hole in main. Remove tapping machine and connect water-service piping.
 - 4. Install gate valve onto tapping sleeve. Comply with MSS SP-60. Install valve with stem pointing up and with valve box.
- E. Make connections NPS 2 (DN 50) and smaller with drilling machine according to the following:
 - 1. Use drilling machine compatible with corporation valves. Drill hole in main. Remove drilling machine and connect water-service piping.
 - 2. Install curb valve in water-service piping with head pointing up and with service box.
- F. Install ductile-iron, water-service piping according to AWWA C600 and AWWA M41.
 - 1. Install PE corrosion-protection encasement according to ASTM A674 or AWWA C105/A21.5.
- G. Bury piping with depth of cover over top at least 60 inches (750 mm), with top at least 12 inches (300 mm) below level of maximum frost penetration.

- H. Marking tape shall be installed for all water mains and services. Marking tape shall be installed approximately 1 foot below finish grade, directly above the pipe.
- I. Install piping by tunneling or jacking, or combination of both, under streets and other obstructions that cannot be disturbed.
- J. Extend water-service piping and connect to water-supply source and building-water-piping systems.
 - 1. Terminate water-service piping as indicated on the drawing or as directed by the City of Watertown, Water Department.
- K. Install underground piping with restrained joints at horizontal and vertical changes in direction. Use both restrained-joint connections and thrust blocks, anchors, tie-rods and clamps, and other supports.

3.05 JOINT CONSTRUCTION

- A. Make pipe joints according to the following:
 - 1. Copper-Tubing, Pressure-Sealed Joints: Join copper tube and pressure-seal fittings with tools and procedures recommended by pressure-seal-fitting manufacturer. Leave insertion marks on pipe after assembly.
 - 2. Ductile-Iron Piping, Gasketed Joints for Water-Service Piping: AWWA C600 and AWWA M41.

3.06 ANCHORAGE INSTALLATION

- A. Anchorage, General: Install water-distribution piping with both restrained joints and concrete thrust blocks.
- B. Install anchorages for tees, plugs and caps, bends, crosses, valves, and hydrant branches.

3.07 VALVE INSTALLATION

- A. AWWA Gate Valves: Comply with AWWA C600 and AWWA M44. Install each underground valve with stem pointing up and with valve box riser.
- B. Corporation Valves and Curb Valves: Install each underground curb valve with head pointed up and with service box riser.

3.08 FIRE HYDRANT INSTALLATION

- A. General: Install each fire hydrant with separate gate valve in supply pipe, anchor with restrained pipe, restrained joints and thrust blocks, and support in upright position.
- B. AWWA Fire Hydrants: Comply with AWWA M17.

3.09 FIELD QUALITY CONTROL

- A. Piping Tests: Conduct water service pipe testing in accordance with the City of Watertown requirements. Pressurize service and examine all connections and fittings for leaks.
- B. DI PIPE TESTING:
 - 1. All mains and services to curb stops shall be pressure and leak tested concurrently after they have been installed and all service taps have been made. The Contractor shall notify the Engineer 48 hours prior to testing so that he may be present.
 - 2. All newly laid mains shall be subjected to a hydrostatic pressure of no less than 150 pounds per square inch, or 1.5 times the working pressure, whichever is greater for a two-hour period. The test section shall be filled with clean potable water allowing air to escape from hydrants and pressurized with a pump. Leakage shall be determined by measuring the amount of water that must be supplied to maintain pressure within 5 psi of the specified test pressure. The pipe section shall not be acceptable if the leakage exceeds that specified in AWWA Standard C600-87 Section 4 (Allowable leakage for 6-inch nominal diameter water pipeline tested at 150 psi is 0.55 gallons per 1000 feet per hour). All visible leaks shall be repaired regardless of the amount of leakage as determined by the above test.
 - 3. All DIP water mains shall be disinfected following pressure testing.
- C. All visible leaks are to be repaired regardless of the amount of leakage.

3.10 IDENTIFICATION

- A. Install continuous underground warning tape during backfilling of trench for underground water-distribution piping. Locate below finished grade, directly over piping. Underground warning tapes are specified in Division 31 "Earthwork."

3.11 CLEANING AND DISINFECTION

- A. Clean and disinfect water-service piping as follows:
 - 1. Install clean and disinfect service piping, fittings and connections during installation
 - 2. Purge and flush new water service piping systems following installation.
 - 3. Use purging and disinfecting procedure prescribed by authorities having jurisdiction or, if method is not prescribed by authorities having jurisdiction, use procedure described in NFPA 24 for flushing of piping. Flush piping system with clean, potable water until dirty water does not appear at points of outlet.
 - 4. Use purging and disinfecting procedure prescribed by authorities having jurisdiction or, if method is not prescribed by authorities having jurisdiction, use procedure described in AWWA C651 or do as follows:

- a. The continuous feed method shall be used for chlorine application. The water main shall be flushed before chlorination at a minimum velocity of 2.5 ft/s (500 GPM for a 8-inch diameter pipeline, respectively) to remove all particles. The water main shall then be filled with not less than 50 mg/l nor more than 75 mg/l of available chlorine and retained in the main for not less than 24 hours. At the end of the 24-hour disinfection period, the treated water shall contain no less than 25 mg/l available chlorine throughout the length of the pipeline. The chlorine solution shall be thoroughly flushed out immediately following the disinfection period. The flushed chlorine solution shall be disposed of properly.
- b. At the completion of the disinfection process, water samples will be taken and sent to New York State Department of Health approved laboratory and analyzed for total coli form in accordance with NYS DOH procedures. Sampling intervals shall be at a minimum of one per 1,000 feet of pipe run, with no less than 2 samples. All testing costs are at the contractor's expense.
- c. If the above-mentioned water quality test returns positive for coliform, the mains shall be flushed and disinfected until such time that water quality is acceptable for drinking.

END OF SECTION 33 1416

**SECTION 33 3113
SITE SANITARY SEWERAGE GRAVITY PIPING**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Sanitary sewerage drainage piping, fittings, and accessories.
- B. Mains and connection of building sanitary drainage system to municipal sewers.
- C. Cleanout.

1.02 RELATED REQUIREMENTS

- A. Section 31 2316 - Excavation: Excavating of trenches.
- B. Section 31 2323 - Fill: Bedding and backfilling.
- C. Section 33 0561 - Concrete Manholes.

1.03 REFERENCE STANDARDS

- A. ASTM C969 - Standard Practice for Infiltration and Exfiltration Acceptance Testing of Installed Precast Concrete Pipe Sewer Lines; 2019 Edition, January 1, 2019.
- B. ASTM C969M - Standard Practice for Infiltration and Exfiltration Acceptance Testing of Installed Precast Concrete Pipe Sewer Lines (Metric); 2019 Edition, January 1, 2019.
- C. ASTM D1785 - Standard Specification for Poly(Vinyl Chloride) (PVC) Plastic Pipe, Schedules 40, 80, and 120; 2021a.
- D. ASTM D2321 - Standard Practice for Underground Installation of Thermoplastic Pipe for Sewers and Other Gravity-Flow Applications; 2020.
- E. ASTM D2729 - Standard Specification for Poly(Vinyl Chloride) (PVC) Sewer Pipe and Fittings; 2021.
- F. ASTM D3034 - Standard Specification for Type PSM Poly(Vinyl Chloride) (PVC) Sewer Pipe and Fittings; 2023.
- G. ASTM F1417 - Standard Practice for Installation Acceptance of Plastic Non-pressure Sewer Lines Using Low-Pressure Air; Revision 11A, August 1, 2011.

1.04 SUBMITTALS

- A. Product Data: Provide data indicating pipe, pipe accessories.
- B. Manufacturer's Certificate: Certify that products meet or exceed specified requirements.

- C. Manufacturer's Installation Instructions: Indicate special procedures required to install Products specified.
- D. Field Quality Control Submittals: Document results of field quality control testing.
- E. Project Record Documents:
 - 1. Record location of pipe runs, connections, manholes, laterals, wyes , and invert elevations.
 - 2. Identify and describe unexpected variations to subsoil conditions or discovery of uncharted utilities.

PART 2 PRODUCTS

2.01 SEWER PIPE MATERIALS

- A. Provide products that comply with applicable code(s).
- B. Plastic Pipe: ASTM D2729, Poly(Vinyl Chloride) (PVC) material; inside nominal diameter of 4 - 8 inches, bell and spigot style solvent sealed joint end.
- C. Plastic Pipe: ASTM D3034, Type PSM, SDR-35, Poly(Vinyl Chloride) (PVC) material; inside nominal diameter of 4 - 8 inches, bell and spigot style joints and gasketed end.
- D. Fittings: Same material as pipe molded or formed to suit pipe size and end design, in required tee, bends, elbows, cleanouts, reducers, traps and other configurations required.

2.02 CLEANOUT

- A. Lid and Frame: Cast iron construction.
- B. Fittings: Same material as pipe molded or formed to suit pipe size and end design, in required tee, bends, elbows, cleanouts, reducers, traps and other configurations required.

2.03 BEDDING AND COVER MATERIALS

- A. Pipe Bedding Material: As specified in Section 31 2323.
- B. Pipe Cover Material: As specified in Section 31 2323.

PART 3 EXECUTION

3.01 TRENCHING

- A. Hand trim excavation for accurate placement of pipe to elevations indicated.
- B. Backfill around sides and to top of pipe with cover fill, tamp in place and compact, then complete backfilling.

3.02 INSTALLATION - PIPE

- A. Verify that trench cut is ready to receive work and excavations, dimensions, and elevations are as indicated on layout drawings.
- B. Install pipe, fittings, and accessories in accordance with manufacturer's instructions. Seal watertight.
 - 1. Plastic Pipe: Also comply with ASTM D2321.
- C. Lay pipe to slope gradients noted on layout drawings; with maximum variation from true slope of 1/8 inch in 10 feet.
- D. Connect to building sanitary sewer outlet and municipal sewer system .

3.03 INSTALLATION - CLEANOUTS

- A. Form bottom of excavation clean and smooth to correct elevation.
- B. Establish finish grade and pipe inverts for fittings, concrete pad and frame.

3.04 FIELD QUALITY CONTROL

- A. If tests indicate Work does not meet specified requirements, remove Work, replace and retest at no cost to Owner.
 - 1. Low Pressure Test: Test in accordance with City of Watertown General Specifications.
 - a. Low Pressure Air Tests: Test sanitary sewerage according to requirements of authorities having jurisdiction, UNI-B-6, and the following:
 - b. Test plastic gravity sewer piping according to ASTM F1417.
 - c. After completing backfill section of a pipe, the Contractor shall conduct a Line Acceptance Test using low pressure air. The test shall be performed using the equipment listed below according to the specified procedures and in the presence of the Engineer. All test results shall be submitted to the Engineer upon completion.
 - 1) Pneumatic plugs shall have a sealing length equal to or greater than the diameter of the pipe to be tested.
 - 2) Pneumatic plugs shall resist internal test pressures without requiring external bracing or blocking.
 - 3) All air used shall pass through a single control panel.
 - 4) Three individual hoses shall be used for the following connections:
 - (a) From control panel to pneumatic plugs for inflation.
 - (b) From control panel to sealed line for introducing the low pressure air.

- (c) From sealed line to control panel for continually monitoring the air pressure rise in the sealed line.
- (d) The following testing procedures shall be explicitly followed:
 - (1) All pneumatic plugs shall be seal tested before being used in the actual test installation. Air shall be introduced into the plugs to 25 psig. The sealed pipe shall be pressurized to 5 psig. The plugs shall hold against this pressure without bracing and without movement of the plugs out of the pipe.
 - (2) After a manhole to manhole reach of pipe has been backfilled cleaned, and the pneumatic plugs are checked by the procedure, the plugs shall be placed in the line at each manhole 5 psig. Low pressure air shall be introduced into this sealed line until the internal air pressure reaches 4 psig greater than the average back pressure of any groundwater that may be over the pipe. At least two minutes shall be allowed for the air pressure to stabilize. After the stabilization period (3.5 psig minimum pressure in the pipe), the air hose from the control panel to the air supply shall be disconnected. The portion of the line being tested shall be termed “Acceptable” if the time required in minutes for the pressure to decrease from 3.5 to 2.5 psig (greater than the average back pressure of any groundwater that may be over the pipe) shall not be less the time shown for the given diameters in the follow in table:

Pipe Dia: (Inches)	Minutes (<300')	Minutes (301-350')	Minutes (351'-400')
4	4	4	4
6	6	6	6
8	8	9	9
10	12	14	16

- (3) In areas where groundwater is known to exist, contractor shall install a one-half inch diameter capped pipe nipple, approximately ten (10) inches long, through the manhole wall on top of one of the sewer lines entering the manhole. This shall be done at the time the sewer line is installed. Immediately prior to the performance of the Line Acceptance Test, the groundwater shall be determined by removing the pipe cap, blowing air through the pipe nipple to clear it then attaching a clear plastic tube to the nipple, the tube shall then be held vertically and a measurement of the height is taken after the water has stopped rising in the plastic tube. The height in feet shall be divided by 2.3 to establish the pounds of pressure that will be added to all readings. (For example, if the height of the water is eleven and one-half (11 1/2) feet, then the added pressure will be 5 psig. This increases the 3.5 psig to 8.5 psig, and the 2.5 psig to 7.5 psig. The

allowable drop of one pound and the timing remain the same.)

- (4) If the installation fails to meet this requirement, the Contractor shall, at his or her own expense, determine the source of leakage. He or she shall then repair or replace all defective materials and/or workmanship.

2. Leakage Test: Test in accordance with City of Watertown General Specifications.

a. Leakage Test

- 1) Leakage test shall be observed by the Engineer on each structure prior to backfilling. The test shall be by infiltration, exfiltration, and/or vacuum as described below. Submit a report to the Engineer detailing the test and test results.
- 2) After the structure has been assembled in place, all lifting holes and those exterior joints within six feet of the ground surface shall be filled and pointed with an approved non-shrinking mortar. The test shall be made prior to placing the shelf invert and before filling and pointing the horizontal joints below the six foot depth line. The contractor shall furnish and put in place all temporary plugs and all equipment required to measure leakage rates. The contractor shall furnish all water for testing purposes. All pipes and other openings into the manhole shall be suitably plugged and the plugs braced to prevent blow out.

b. Infiltration Test

- 1) If the groundwater table is above the highest joint in the manhole, an infiltration test may be made as approved by the Engineer. If the structure is judged by the Engineer as watertight, the structure shall be accepted and testing considered complete. If the Engineer is not satisfied that the manhole is watertight, the infiltration or vacuum test shall be performed.

c. Exfiltration Test

- 1) An exfiltration test shall be made if the groundwater level is not up to the highest joint, or the structure has failed the infiltration test specified above.
- 2) If the groundwater table has risen above the bottom of the structure, it shall be lowered for the duration of the test. The structure shall then be filled with water to the top of the cone section. If observation indicates no visible leakage, that is, no water visibly moving down the surface of the structure, the structure may be considered to be satisfactorily watertight. If the test, as described above is unsatisfactory as determined by the Engineer, The test shall be continued. A period of time may be permitted if the contractor so wishes, to allow for absorption. At the end of this period, the manhole shall be refilled to the top of the cone, if necessary, and the measuring time of at least 8 hours begun. At the

end of the test period, the structure shall be refilled to the top of the cone, measuring the volume of water added. This amount shall be extrapolated to a 24-hour rate and the leakage determined on the basis of depth. The leakage for each manhole shall not exceed 1 gallon per vertical foot for a 24-hour period. If the test fails this requirement, but the leakage does not exceed 3 gallons per vertical foot per day, repairs by the approved methods may be directed by the Engineer to bring the leakage within the allowable rate of 1 gallon per foot per day. Leakage due to a defective section or joint or exceeding the 3 gallon per vertical foot per day shall be the cause for the rejection of the structure. It shall be the Contractor's responsibility to disassemble, reconstruct or replace it. The structure shall then be retested and, if satisfactory, interior joints shall be filled and pointed.

- 3) No adjustment in the leakage allowance will be made for unknown causes such as leaking plugs, absorptions, etc., i.e., it will be assumed that all loss of water during the test is a result of leaks through the joints or through the concrete. Furthermore, the contractor shall take any step necessary to lower the water table below the bottom of the structure throughout the test.

d. Vacuum Test

- 1) Testing by vacuum shall be performed after complete assembly of the precast manhole sections and prior to backfilling.
- 2) Contractor shall plug all pipe openings, taking care to securely brace the plugs and pipe.
- 3) Vacuum testing equipment shall be unit specifically designed for this application and approved by the Engineer.
- 4) Maximum allowance seam on the access hole casting shall be 6 mm.
- 5) The manhole shall pass the test if it holds a vacuum reading 33.9 kPa (10" Hg) on an appropriate gauge for a test period of two (2) minutes without dropping more than 3.4 kPa (1" Hg) on the vacuum gauge.

3. Deflection Test: Test in accordance with City of Watertown General Specifications.

a. Pipe Deflection Testing for PVC Piping:

- 1) Following completion of the backfill over the PVC pipe installation, the pipeline shall be tested for deflection using a "go/no-go" deflection mandrel. The "go/no-go" gauge shall be passed through all sections of the pipeline.
- 2) The mandrel shall be set to 5% deflection of the pipe being tested and manually pulled through each section of pipe.
- 3) A section of pipe with deflection greater than 5% shall be replaced.

- 4) Manholes: Perform hydraulic test according to ASTM C969.
4. Following completion of the sewer installation portion of the project but not later than thirty (30) days after the date of final completion, the Contractor shall provide to the City a video recording of the completed sewer work. The contractor shall provide a log indicating all lateral and manhole stations, as well as the locations of any problem areas.

3.05 PROTECTION

- A. Protect pipe and bedding cover from damage or displacement until backfilling operation is in progress.

END OF SECTION

**SECTION 33 4100
SUBDRAINAGE**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Retaining Wall Drainage Systems.
- B. Filter aggregate and fabric and bedding.

1.02 RELATED REQUIREMENTS

- A. Section 31 2316 - Excavation: Excavating for subdrainage system piping and surrounding filter aggregate.
- B. Section 31 2316.13 - Trenching: Excavating and backfilling for site subdrainage systems.
- C. Section 31 2323 - Fill: Backfilling over filter aggregate, up to subgrade elevation.

1.03 REFERENCE STANDARDS

- A. AASHTO M 252 - Standard Specification for Corrugated Polyethylene Drainage Pipe; 2020.

1.04 SUBMITTALS

- A. Product Data: Provide data on pipe drainage products, and pipe accessories.
- B. Manufacturer's Certificate: Certify that products meet or exceed specified requirements.

PART 2 PRODUCTS

2.01 REGULATORY REQUIREMENTS

- A. Comply with applicable code for materials and installation of the work of this section.

2.02 PIPE MATERIALS

- A. Corrugated Plastic Tubing: Flexible type; 4 inch diameter, with required fittings.
- B. Use perforated pipe at subdrainage system; unperforated through sleeved walls.

2.03 AGGREGATE AND BEDDING

- A. Filter Aggregate and Bedding Material: Drainage Course as specified in Section 31 2323.

2.04 ACCESSORIES

- A. Pipe Couplings: Solid plastic.
- B. Filter Fabric: As specified in Section 31 2323

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that trench cut is ready to receive work and excavations, dimensions, and elevations are as indicated on layout drawings.

3.02 PREPARATION

- A. Hand trim excavations to required elevations.
- B. Remove large stones or other hard matter that could damage drainage piping or impede consistent backfilling or compaction.

3.03 INSTALLATION

- A. Install and join pipe and pipe fittings in accordance with pipe manufacturer's instructions.
- B. Lay pipe to slope gradients noted on drawings; with maximum variation from true slope of 1/8 inch in 10 feet.
- C. Loosely butt pipe ends. Place joint cover strip 12 inches wide, around pipe diameter centered over joint.
- D. Place pipe with perforations facing down. Mechanically join pipe ends.
- E. Install pipe couplings.
- F. Install filter aggregate at sides, over joint covers and top of pipe. Provide top cover compacted thickness of 12 inches.
- G. Place filter fabric over levelled top surface of aggregate cover prior to subsequent backfilling operations.
- H. Place aggregate in maximum 4 inch lifts, consolidating each lift.
- I. Refer to Section 31 2323 for compaction requirements. Do not displace or damage pipe when compacting.

3.04 FIELD QUALITY CONTROL

- A. Request inspection prior to placing aggregate cover over pipe.

3.05 PROTECTION

- A. Protect pipe and aggregate cover from damage or displacement until backfilling operation begins.

END OF SECTION

**SECTION 33 4211
STORMWATER GRAVITY PIPING**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Stormwater drainage piping.
- B. Stormwater pipe accessories.

1.02 RELATED REQUIREMENTS

- A. Section 31 2316 - Excavation: Excavating of trenches.
- B. Section 31 2323 - Fill: Bedding and backfilling.
- C. Section 33 0561 - Concrete Manholes.
- D. Section 33 4230 - Stormwater Drains.

1.03 REFERENCE STANDARDS

- A. AASHTO M 252 - Standard Specification for Corrugated Polyethylene Drainage Pipe; 2023.
- B. AASHTO M 294 - Standard Specification for Corrugated Polyethylene Pipe, 300- to 1500-mm (12- to 60-in.) Diameter; 2021.
- C. ASTM D2321 - Standard Practice for Underground Installation of Thermoplastic Pipe for Sewers and Other Gravity-Flow Applications; 2020.
- D. ASTM D2729 - Standard Specification for Poly(Vinyl Chloride) (PVC) Sewer Pipe and Fittings; 2021.
- E. ASTM D3034 - Standard Specification for Type PSM Poly(Vinyl Chloride) (PVC) Sewer Pipe and Fittings; 2023.
- F. ASTM D3350 - Standard Specification for Polyethylene Plastics Pipe and Fittings Materials; 2021.

1.04 SUBMITTALS

- A. Product Data: Provide data indicating pipe, pipe accessories.
- B. Manufacturer's Certificate: Certify that products meet or exceed specified requirements.
- C. Manufacturer's Installation Instructions: Indicate special procedures required to install Products specified.
- D. Field Quality Control Submittals: Document results of field quality control testing.
- E. Project Record Documents:

1. Record location of pipe runs, connections, and invert elevations.
2. Identify and describe unexpected variations to subsoil conditions or discovery of uncharted utilities.

PART 2 PRODUCTS

2.01 STORMWATER PIPE MATERIALS

- A. Provide products that comply with applicable code(s).
- B. Plastic Pipe: ASTM D3034, Type PSM, Poly Vinyl Chloride (PVC) material; inside nominal diameter of 4 inches, bell and spigot style gasketed joint end.
- C. Plastic Pipe: ASTM D3350, High Density Polyethylene (HDPE) corrugated wall pipe with integrally formed smooth liner; inside nominal diameter of 12 and 15 inch, meeting the requirements of AASHTO M 294, Type S, for diameters between 12 inches and 60 inches, soil-tight, bell and spigot joints with rubber gaskets, with pipe and fittings manufactured from virgin PE compounds with cell classification 3254420C.

2.02 PIPE ACCESSORIES

- A. Fittings: Same material as pipe molded or formed to suit pipe size and end design, in required tee, bends, elbows, cleanouts, reducers, traps and other configurations required.

2.03 BEDDING AND COVER MATERIALS

- A. Bedding: As specified in Section 31 2323.
- B. Cover: As specified in Section 31 2323.

PART 3 EXECUTION

3.01 TRENCHING

- A. See Section 31 2316 - Excavation and Section 31 2323 - Fill for additional requirements.
- B. Hand trim excavation for accurate placement of pipe to elevations indicated.
- C. Backfill around sides and to top of pipe with cover fill, tamp in place and compact, then complete backfilling.

3.02 INSTALLATION

- A. Verify that trench cut is ready to receive work and excavations, dimensions, and elevations are as indicated on layout drawings.
- B. Install pipe, fittings, and accessories in accordance with manufacturer's instructions. Seal watertight.

1. Plastic Pipe: Also comply with ASTM D2321.
- C. Lay pipe to slope gradients noted on layout drawings; with maximum variation from true slope of 1/8 inch in 10 feet.

3.03 FIELD QUALITY CONTROL

- A. Perform field inspection and testing.
- B. If tests indicate Work does not meet specified requirements, remove Work, replace and retest at no cost to Owner.
- C. Deflection Test: Test in accordance with City of Watertown General Specifications.
 1. Pipe Deflection Testing for HDPE Piping:
 - a. Following completion of the backfill over the HDPE pipe installation, the pipeline shall be tested for deflection using a “go/no-go” deflection mandrel. The “go/no-go” gauge shall be passed through all sections of the pipeline.
 - b. The mandrel shall be set to 5% deflection of the pipe being tested and manually pulled through each section of pipe.
 - c. A section of pipe with deflection greater than 5% shall be replaced.
- D. Video Inspection: The contractor shall conduct a video recording of all completed storm sewer main work. The video recording shall be submitted to the City within 30 days after the completion of the sewer work. The video shall be accompanied by a log indicating stations or lengths to all laterals and manhole stations.

3.04 PROTECTION

- A. Protect pipe and bedding cover from damage or displacement until backfilling operation is in progress.

END OF SECTION

**SECTION 33 4230
STORMWATER DRAINS**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Precast concrete catch basins.
- B. Frames and grates.

1.02 RELATED REQUIREMENTS

- A. Section 31 2316 - Excavation.
- B. Section 31 2323 - Fill.
- C. Section 33 4211 - Stormwater Gravity Piping.

1.03 REFERENCE STANDARDS

- A. AASHTO HB - Standard Specifications for Highway Bridges; 2005, with Errata.
- B. ASTM C478/C478M - Standard Specification for Circular Precast Reinforced Concrete Manhole Sections; 2020.
- C. ASTM C923/C923M - Standard Specification for Resilient Connectors Between Reinforced Concrete Manhole Structures, Pipes, and Laterals; 2020.
- D. ASTM C990 - Standard Specification for Joints for Concrete Pipe, Manholes, and Precast Box Sections Using Preformed Flexible Joint Sealants; 2009 (Reapproved 2019).

1.04 SUBMITTALS

- A. Product Data: Weight rating for catch basins and frame and grates.
- B. Shop Drawings: Indicate stack assembly, invert elevations, opening sizes, and pipe angles.
- C. Manufacturer's Installation Instructions: Indicate special procedures for assembly.
- D. Designer's qualification statement.
- E. Manufacturer's qualification statement.
- F. Manufacturer's Certificate: Certify that products meet or exceed specified requirements.
- G. Field Quality Control Submittals: Document results of field quality control testing.
- H. Project Record Documents:
 - 1. Record invert elevations of catch basins.

2. Identify and describe unexpected variations to subsoil conditions or discovery of uncharted utilities.

1.05 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section, with at least three years of documented experience.
- B. Documents at Project Site: Maintain one copy of manufacturer's instructions, assembly drawings, and shop drawings at the project site.

PART 2 PRODUCTS

2.01 CATCH BASINS

- A. Weight Rating: HS 20 according to AASHTO HB.
- B. Precast Concrete Catch Basins: Comply with ASTM C478/C478M, reinforced.
 1. Wall Thickness: 6 inches (152 mm).
 2. Base Thickness: 6 inches (152 mm).
 3. Joint Sealant: Comply with ASTM C990.
 4. Resilient Connectors: Comply with ASTM C923/C923M.
- C. Grade Adjustments:
 1. Adjustment Ring: Precast Concrete or Expanded polypropylene, 6 inches (152 mm) wide, matching frame dimensions, in accordance with ASTM C478/C478M.
- D. Reticuline Frames and Grates: Galvanized, City of Watertown "Single", 24" by 1'-10 11/16" inch.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify items provided by other sections of work are properly sized and located.
- B. Verify built-in items are in proper location and ready for roughing into work.
- C. Verify excavation location and depth are correct.

3.02 EXCAVATION AND FILL

- A. Hand trim excavation for accurate placement to indicated elevations.
- B. Backfill with cover fill, tamp in place and compact, then complete backfilling.

3.03 INSTALLATION

- A. Establish elevations and pipe inverts for inlets and outlets as indicated in drawings.
- B. Precast Concrete Catch Basins:
 - 1. Place base section plumb and level.
 - 2. Install joint sealant uniformly around section lip.
 - 3. Overlay additional sections on joint sealant.
 - 4. Install cone or lid plumb and level on joint sealant.
- C. Grade Adjustments:
 - 1. Lay concrete ring on mortar bed plumb and level. Top with mortar, plumb and level.
 - 2. Place adjacent materials tight and smooth following design grades.
- D. Frames and Grates:
 - 1. Place frame plumb and level.
 - 2. Mount frame on mortar bed at indicated elevation.
 - 3. Place grate in frame securely.

3.04 FIELD QUALITY CONTROL

- A. Perform field inspection for pipe invert elevations.
- B. If inspections indicate work does not meet specified requirements, adjust work and reinspect at no cost to Owner.

END OF SECTION