

CITY OF PLATTSBURGH VETERANS MEMORIAL PARK IMPROVEMENTS

It is a violation of the New York State Education Law, Article 145 §7209 Special Provisions, for any person, unless they are acting under the direction of a licensed professional engineer, architect, landscape architect, or land surveyor, to alter an item in any way. If an item bearing the stamp of a licensed professional is altered, the altering professional shall stamp the document and include the notation "altered by" followed by their signature, the date of such alteration, and a specific description of the alteration.

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ADVERTISEMENT FOR BIDS

CITY OF PLATTSBURGH
CITY OF PLATTSBURGH VETERANS MEMORIAL PARK IMPROVEMENTS
CONTRACT NO. 1 – GENERAL CONSTRUCTION

Sealed, separate Bids for the construction of the City of Plattsburgh Veterans Memorial Park Improvements, Contract No. 1 – General Construction will be received by the City of Plattsburgh at the office of the City Clerk, 41 City Hall Place, Plattsburgh, New York 12901, until 2:00 PM local time on August 25, 2025, at which time the Bids received will be publicly opened and read. The Project consists of site improvements at the existing Veterans Memorial Park in US Oval Park, 205 US Oval, Plattsburgh, New York 12903. Improvements include removal and replacement of paving, removal and resetting existing memorial benches, removal and replacement of existing lighting, saw-cutting existing asphalt pavement, new flush concrete curb, and associated landscaping.

Bids will be received for a single prime Contract. Bids shall be on a lump sum basis, as indicated in the Bid Form.

The Issuing Office for the Bidding Documents is: Barton & Loguidice, D.P.C., 10 Airline Drive, Suite 200, Albany, New York 12205, attention Leigh Jones, ljones@bartonandloguidice.com.

Bidding Documents may be obtained from the Issuing Office. Bidding Documents are available via email as portable document format (PDF) files at no cost. The date that the Bidding Documents are transmitted by the Issuing Office will be considered the prospective Bidder's date of receipt of the Bidding Documents. Partial sets of Bidding Documents will not be available from the Issuing Office. Neither Owner nor Engineer will be responsible for full or partial sets of Bidding Documents, including Addenda if any, obtained from sources other than the Issuing Office.

Each Bid must be submitted on the prescribed Bid Form and accompanied by Bid security, as prescribed in the Instructions to Bidders.

The Successful Bidder will be required to furnish the additional bond(s) prescribed in the Bidding Documents.

In order to perform public work, the Successful Bidder and Subcontractors prior to contract award shall hold or obtain such license as required by State statutes, and Federal and local Laws and Regulations.

Bids will not be accepted from Bidders that have been barred from competing on public works under General Municipal Law 5A-103-b.

Purchases made by the City of Plattsburgh are not subject to any Federal, State or local sales tax. Bidders shall not include in their bid sales and compensating use taxes on the cost of materials. Exemption certificates will be executed upon request.

For information concerning the proposed Work, contact Leigh Jones, Barton & Loguidice, D.P.C., 10 Airline Drive, Suite 200, Albany, New York 12205, ljones@bartonandloguidice.com.

The Owner's right is reserved to reject all Bids or any Bid not conforming to the intent and purpose of the Bidding Documents.

Dated this 30th day of July, 2025,

City Clerk
City of Plattsburgh

+ + END OF SECTION + +

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INSTRUCTIONS TO BIDDERS

ARTICLE 1 – DEFINED TERMS

- 1.01 Terms used in these Instructions to Bidders have the meanings indicated in the General Conditions and Supplementary Conditions. Additional terms used in these Instructions to Bidders have the meanings indicated below:

A. *Issuing Office* – The office from which the Bidding Documents are to be issued.

ARTICLE 2 – COPIES OF BIDDING DOCUMENTS

- 2.01 Complete sets of the Bidding Documents may be obtained from the Issuing Office in the number and format stated in the Advertisement or Invitation to Bid.
- 2.02 Complete sets of Bidding Documents shall be used in preparing Bids; neither Owner nor Engineer assumes any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents.
- 2.03 Owner and Engineer, in making copies of Bidding Documents available on the above terms, do so only for the purpose of obtaining Bids for the Work and do not authorize or confer a license for any other use.

ARTICLE 3 – QUALIFICATIONS OF BIDDERS

- 3.01 To demonstrate Bidder's qualifications to perform the Work, Bidder shall submit with its Bid (a) written evidence establishing its qualifications such as financial data, previous experience, and present commitments, and (b) the following additional information:
- A. No Bidder shall be eligible to submit a Bid who has been barred from public works projects as defined in General Municipal Law 5A-103-b.
 - B. Evidence of Bidder's authority to do business in the state where the Project is located.
 - C. Bidder's state or other contractor license number, if applicable.
 - D. Subcontractor and Supplier qualification information; coordinate with provisions of Article 12 of these Instructions, "Subcontractors, Suppliers, and Others".
- 3.02 A Bidder's failure to submit required qualification information within the times indicated may disqualify Bidder from receiving an award of the Contract.
- 3.03 No requirement in this Article 3 to submit information will prejudice the right of Owner to seek additional pertinent information regarding Bidder's qualifications.
- 3.04 Bidder is advised to carefully review those portions of the Bid Form requiring Bidder's representations and certifications and by its submission of a Bid represents and agrees that it has done so.

ARTICLE 4 – SITE AND OTHER AREAS; EXISTING SITE CONDITIONS; EXAMINATION OF SITE; OWNER’S SAFETY PROGRAM; OTHER WORK AT THE SITE

4.01 *Site and Other Areas*

- A. The Site is identified in the Bidding Documents. By definition, the Site includes rights-of-way, easements, and other lands furnished by Owner for the use of the Contractor. Any additional lands required for temporary construction facilities, construction equipment, or storage of materials and equipment, and any access needed for such additional lands, are to be obtained and paid for by Contractor.

4.02 *Existing Site Conditions*

- A. Subsurface and Physical Conditions; Hazardous Environmental Conditions
 - 1. The Supplementary Conditions identify:
 - a. Those reports known to Owner of explorations and tests of subsurface conditions at or adjacent to the Site.
 - b. Those drawings known to Owner of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities).
 - c. Reports and drawings known to Owner relating to Hazardous Environmental Conditions that have been identified at or adjacent to the Site.
 - d. Technical Data contained in such reports and drawings.
 - 2. Owner will make copies of reports and drawings referenced above available to any Bidder on request. These reports and drawings are not part of the Contract Documents, but the Technical Data contained therein upon whose accuracy Bidder is entitled to rely, as provided in the General Conditions, has been identified and established in the Supplementary Conditions. Bidder is responsible for any interpretation or conclusion Bidder draws from any Technical Data or any other data, interpretations, opinions, or information contained in such reports or shown or indicated in such drawings.
 - 3. If the Supplementary Conditions do not identify Technical Data, the default definition of Technical Data set forth in Article 1 of the General Conditions will apply.
- B. Underground Facilities: Information and data shown or indicated in the Bidding Documents with respect to existing Underground Facilities at or adjacent to the Site are set forth in the Contract Documents and are based upon information and data furnished to Owner and Engineer by owners of such Underground Facilities, including Owner, or Others.
- C. Adequacy of Data: Provisions concerning responsibilities for the adequacy of data furnished to prospective Bidders with respect to subsurface conditions, other physical conditions, and Underground Facilities, and possible changes in the Bidding Documents due to differing or unanticipated subsurface or physical conditions appear in Paragraphs 5.03, 5.04, and 5.05 of the General Conditions. Provisions concerning responsibilities for the adequacy of data furnished to prospective Bidders with respect to a Hazardous Environmental Condition at the Site, if any, and possible changes in the Contract Documents due to any Hazardous Environmental Condition uncovered or revealed at the Site which was not shown or indicated in the Drawings or Specifications or identified in

the Contract Documents to be within the scope of the Work, appear in Paragraph 5.06 of the General Conditions.

4.03 *Site Visit and Testing by Bidders*

- A. Bidder shall conduct the required Site visit during normal working hours, and shall not disturb any ongoing operations at the Site.
- B. Unless Bidder determines it is unable to prepare a complete and accurate Bid otherwise, Bidder is not required to conduct any subsurface testing, or exhaustive investigations of Site conditions.
- C. On request, and to the extent Owner has control over the Site, and schedule permitting, the Owner will provide Bidder access to the Site to conduct such additional examinations, investigations, explorations, tests, and studies as Bidder deems necessary for preparing and submitting a complete and accurate Bid. Owner will not have any obligation to grant such access if doing so is not practical because of existing operations, security or safety concerns, or restraints on Owner's authority regarding the Site.
- D. Bidder shall comply with all applicable Laws and Regulations regarding excavation and location of utilities, obtain all permits, and comply with all terms and conditions established by Owner or by property owners or other entities controlling the Site with respect to schedule, access, existing operations, security, liability insurance, and applicable safety programs.
- E. Bidder shall fill all holes and clean up and restore the Site to its former condition upon completion of such explorations, investigations, tests, and studies.

4.04 *Owner's Safety Program*

- A. Site visits and work at the Site may be governed by an Owner safety program. As the General Conditions indicate, if an Owner safety program exists, it will be noted in the Supplementary Conditions.

4.05 *Other Work at the Site*

- A. Reference is made to Article 8 of the Supplementary Conditions for the identification of the general nature of other work of which Owner is aware (if any) that is to be performed at the Site by Owner or Others (such as utilities and other prime contractors) and relates to the Work contemplated by these Bidding Documents. If Owner is party to a written contract for such other work, then on request, Owner will provide to each Bidder access to examine such contracts (other than portions thereof related to price and other confidential matters), if any.

ARTICLE 5 – BIDDER'S REPRESENTATIONS

5.01 It is the responsibility of each Bidder before submitting a Bid to:

- A. Examine and carefully study the Bidding Documents, and any data and reference items identified in the Bidding Documents;
- B. Visit the Site, conduct a thorough, alert visual examination of the Site and adjacent areas, and become familiar with and satisfy itself as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work;
- C. Become familiar with and satisfy itself as to all Laws and Regulations that may affect cost, progress, and performance of the Work;

- D. Carefully study all: (1) reports of explorations and tests of subsurface conditions at or adjacent to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings, and (2) reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings;
- E. Consider the information known to Bidder itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and the Site-related reports and drawings identified in the Bidding Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder; and (3) Bidder's safety precautions and programs;
- F. Agree, based on the information and observations referred to in the preceding paragraph, that at the time of submitting its Bid no further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of its Bid for performance of the Work at the price bid and within the times required, and in accordance with the other terms and conditions of the Bidding Documents;
- G. Become aware of the general nature of the work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents;
- H. Promptly give Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder discovers in the Bidding Documents and confirm that the written resolution thereof by Engineer is acceptable to Bidder;
- I. Determine that the Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance and furnishing of the Work; and
- J. Agree that the submission of a Bid will constitute an incontrovertible representation by Bidder that Bidder has complied with every requirement of this Article, that without exception the Bid and all prices in the Bid are premised upon performing and furnishing the Work required by the Bidding Documents.

ARTICLE 6 – PRE-BID CONFERENCE

- 6.01 A pre-bid conference will **not** be held for this Project. Bidders are encouraged to review all bidding documents thoroughly and submit any questions in writing by the deadline specified in the Instructions to Bidders. Responses to questions, if necessary, will be issued via Addendum to all prospective Bidders of record. Oral statements will not be binding or legally effective.

ARTICLE 7 – INTERPRETATIONS AND ADDENDA

- 7.01 All questions about the meaning or intent of the Bidding Documents are to be submitted to Engineer in writing. Interpretations or clarifications considered necessary by Engineer in response to such questions will be issued by Addenda delivered to all parties recorded as having received the Bidding Documents. Questions received less than seven days prior to the date for opening of Bids may not be answered. Only questions answered by Addenda will be binding.

Oral and other interpretations or clarifications will be without legal effect. Addenda will be issued at least five (5) days prior to the date of Bid opening.

- 7.02 Addenda may be issued to clarify, correct, supplement, or change the Bidding Documents.

ARTICLE 8 – BID SECURITY

- 8.01 A Bid must be accompanied by Bid security made payable to Owner in an amount of five percent of Bidder's maximum Bid price (determined by adding the base Bid and all alternates) and in the form of a certified check, bank money order, or a Bid bond (on the form included in the Bidding Documents) issued by a surety meeting the requirements of Paragraphs 6.01 and 6.02 of the General Conditions.
- 8.02 The Bid security of the apparent Successful Bidder will be retained until Owner awards the Contract to such Bidder, and such Bidder has executed the Contract Documents, furnished the required Contract security, and met the other conditions of the Notice of Award, whereupon the Bid security will be released. If the Successful Bidder fails to execute and deliver the Contract Documents and furnish the required Contract security within 15 days after the Notice of Award, Owner may consider Bidder to be in default, annul the Notice of Award, and the Bid security of that Bidder will be forfeited. Such forfeiture shall be Owner's exclusive remedy if Bidder defaults.
- 8.03 The Bid security of other Bidders that Owner believes to have a reasonable chance of receiving the award may be retained by Owner until the earlier of seven days after the Effective Date of the Contract or 45 days after the Bid opening, whereupon Bid security furnished by such Bidders will be released.
- 8.04 Bid security of other Bidders that Owner believes do not have a reasonable chance of receiving the award will be released within seven days after the Bid opening.

ARTICLE 9 – CONTRACT TIMES

- 9.01 The number of days within which, or the dates by which, the Work is to be substantially completed, and completed and ready for final payment, are set forth in the Agreement.

ARTICLE 10 – LIQUIDATED DAMAGES

- 10.01 Provisions for liquidated damages, if any, for failure to timely attain a Milestone, Substantial Completion, or completion of the Work in readiness for final payment, are set forth in the Agreement.

ARTICLE 11 – SUBSTITUTE AND "OR-EQUAL" ITEMS

- 11.01 The Contract for the Work, as awarded, will be on the basis of materials and equipment specified or described in the Bidding Documents without consideration during the bidding and Contract award process of possible substitute or "or-equal" items. In cases in which the Contract allows the Contractor to request that Engineer authorize the use of a substitute or "or-equal" item of material or equipment, application for such acceptance may not be made to and will not be considered by Engineer until after the Effective Date of the Contract.
- 11.02 All prices that Bidder sets forth in its Bid shall be based on the presumption that the Contractor will furnish the materials and equipment specified or described in the Bidding Documents, as supplemented by Addenda. Any assumptions regarding the possibility of post-Bid approvals of "or-equal" or substitution requests are made at Bidder's sole risk.

ARTICLE 12 – SUBCONTRACTORS, SUPPLIERS, AND OTHERS

- 12.01 A Bidder shall be prepared to retain specific Subcontractors, Suppliers, or other individuals or entities for the performance of the Work if required by the Bidding Documents (most commonly in the Specifications) to do so. If a prospective Bidder objects to retaining any such Subcontractor, Supplier, or other individual or entity, and the concern is not relieved by an Addendum, then the prospective Bidder should refrain from submitting a Bid.
- 12.02 Subsequent to the submittal of the Bid, Owner may not require the Successful Bidder or Contractor to retain any Subcontractor, Supplier, or other individual or entity against which Contractor has reasonable objection.
- 12.03 The apparent Successful Bidder, and any other Bidder so requested, shall within five days after Bid opening, submit to Owner a list of the Subcontractors or Suppliers proposed for portions of the Work.
- 12.04 If apparent Successful Bidder declines to make any such substitution, Owner may award the Contract to the next lowest Bidder that proposes to use acceptable Subcontractors, Suppliers, or other individuals or entities. Declining to make requested substitutions will constitute grounds for forfeiture of the Bid security of any Bidder. Any Subcontractor, Supplier, individual, or entity so listed and against which Owner or Engineer makes no written objection prior to the giving of the Notice of Award will be deemed acceptable to Owner and Engineer subject to subsequent revocation of such acceptance as provided in Paragraph 7.06 of the General Conditions.

ARTICLE 13 – PREPARATION OF BID

- 13.01 The Bid Form is included with the Bidding Documents.
 - A. All blanks on the Bid Form shall be completed in ink and the Bid Form signed in ink. Erasures or alterations shall be initialed in ink by the person signing the Bid Form. A Bid price shall be indicated for each section, Bid item, alternate, adjustment unit price item, and unit price item listed therein.
 - B. If the Bid Form expressly indicates that submitting pricing on a specific alternate item is optional, and Bidder elects to not furnish pricing for such optional alternate item, then Bidder may enter the words “No Bid” or “Not Applicable”.
- 13.02 A Bid by a corporation shall be executed in the corporate name by a corporate officer (whose title must appear under the signature), accompanied by evidence of authority to sign. The corporate address and state of incorporation shall be shown.
- 13.03 A Bid by a partnership shall be executed in the partnership name and signed by a partner (whose title must appear under the signature), accompanied by evidence of authority to sign. The partnership’s address for receiving notices shall be shown.
- 13.04 A Bid by a limited liability company shall be executed in the name of the firm by a member or other authorized person and accompanied by evidence of authority to sign. The state of formation of the firm and the firm’s address for receiving notices shall be shown.
- 13.05 A Bid by an individual shall show the Bidder’s name and address for receiving notices.
- 13.06 A Bid by a joint venture shall be executed by an authorized representative of each joint venturer in the manner indicated on the Bid Form. The joint venture’s address for receiving notices shall be shown.
- 13.07 All names shall be printed in ink below the signatures.

- 13.08 The Bid shall contain an acknowledgment of receipt of all Addenda, the numbers of which shall be filled in on the Bid Form.
- 13.09 Postal and e-mail addresses and telephone number for communications regarding the Bid shall be shown.
- 13.10 The Bid shall contain evidence of Bidder's authority and qualification to do business in the state where the Project is located, or Bidder shall covenant in writing to obtain such authority and qualification prior to award of the Contract and attach such covenant to the Bid. Bidder's state contractor license number, if any, shall also be shown on the Bid Form.

ARTICLE 14 – BASIS OF BID

14.01 *Lump Sum*

- A. Bidders shall submit a Bid on a lump sum basis as set forth in the Bid Form.

14.02 *Unit Price*

- A. Bidders shall submit a Bid on a unit price basis for each item of Work listed in the unit price section of the Bid Form.
- B. The "Bid Price" (sometimes referred to as the extended price) for each unit price Bid item will be the product of the "Estimated Quantity" (which Owner or its representative has set forth in the Bid Form) for the item and the corresponding "Bid Unit Price" offered by the Bidder. The total of all unit price Bid items will be the sum of these "Bid Prices"; such total will be used by Owner for Bid comparison purposes. The final quantities and Contract Price will be determined in accordance with Paragraph 13.03 of the General Conditions.
- C. Discrepancies between the multiplication of units of Work and unit prices will be resolved in favor of the unit prices. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum.

14.03 *Allowances*

- A. For cash allowances the Bid price shall include such amounts as the Bidder deems proper for Contractor's overhead, costs, profit, and other expenses on account of cash allowances, if any, named in the Contract Documents, in accordance with Paragraph 13.02.B of the General Conditions.

ARTICLE 15 – SUBMITTAL OF BID

- 15.01 With each copy of the Bidding Documents, a Bidder is furnished one separate unbound copy of the Bid Form, and, if required, the Bid Bond Form. The unbound copy of the Bid Form is to be completed and submitted with the Bid security and the other documents required to be submitted under the terms of Article 7 of the Bid Form.
- 15.02 A Bid shall be received no later than the date and time prescribed and at the place indicated in the Advertisement or Invitation to Bid and shall be enclosed in a plainly marked package with the Project title (and, if applicable, the designated portion of the Project for which the Bid is submitted), the name and address of Bidder, and shall be accompanied by the Bid security and other required documents. If a Bid is sent by mail or other delivery system, the sealed envelope containing the Bid shall be enclosed in a separate package plainly marked on the outside with the notation "BID ENCLOSED." A mailed Bid shall be addressed to:

City of Plattsburgh
ATTN: City Clerk
41 City Hall Place
Plattsburgh, New York 12901

- 15.03 Bids received after the date and time prescribed for the opening of Bids, or not submitted at the correct location or in the designated manner, will not be accepted and will be returned to the Bidder unopened.

ARTICLE 16 – MODIFICATION AND WITHDRAWAL OF BID

- 16.01 A Bid may be withdrawn by an appropriate document duly executed in the same manner that a Bid must be executed and delivered to the place where Bids are to be submitted prior to the date and time for the opening of Bids. Upon receipt of such notice, the unopened Bid will be returned to the Bidder.
- 16.02 If within 3 days after Bids are opened any Bidder files a duly signed written notice with Owner and promptly thereafter demonstrates to the reasonable satisfaction of Owner that there was a material and substantial mistake in the preparation of its Bid, that Bidder may withdraw its Bid, and the Bid security will be returned. Thereafter, if the Work is rebid, that Bidder will be disqualified from further bidding on the Work.

ARTICLE 17 – OPENING OF BIDS

- 17.01 Bids will be opened at the time and place indicated in the Advertisement or Invitation to Bid and, unless obviously non-responsive, read aloud publicly. An abstract of the amounts of the base Bids and major alternates, if any, will be made available to Bidders after the opening of Bids.

ARTICLE 18 – BIDS TO REMAIN SUBJECT TO ACCEPTANCE

- 18.01 All Bids will remain subject to acceptance for the period of time stated in the Bid Form, but Owner may, in its sole discretion, release any Bid and return the Bid security prior to the end of this period.

ARTICLE 19 – EVALUATION OF BIDS AND AWARD OF CONTRACT

- 19.01 Owner reserves the right to reject any or all Bids, including without limitation, nonconforming, nonresponsive, unbalanced, or conditional Bids. Owner will reject the Bid of any Bidder that Owner finds, after reasonable inquiry and evaluation, to not be responsible. If Bidder purports to add terms or conditions to its Bid, takes exception to any provision of the Bidding Documents, or attempts to alter the contents of the Contract Documents for purposes of the Bid, then the Owner will reject the Bid as nonresponsive; provided that Owner also reserves the right to waive all minor informalities not involving price, time, or changes in the Work.
- 19.02 If Owner awards the Contract for the Work, such award shall be to the responsible Bidder submitting the lowest responsive Bid.
- 19.03 Evaluation of Bids
- A. In evaluating Bids, Owner will consider whether or not the Bids comply with the prescribed requirements, and such alternates, unit prices, and other data, as may be requested in the Bid Form or prior to the Notice of Award.

- B. In the comparison of Bids, alternates will be applied in the same order of priority as listed in the Bid Form. To determine the Bid prices for purposes of comparison, Owner shall announce to all Bidders a “Base Bid plus alternates” budget after receiving all Bids, but prior to opening them. For comparison purposes alternates will be accepted, following the order of priority established in the Bid Form, until doing so would cause the budget to be exceeded. After determination of the Successful Bidder based on this comparative process and on the responsiveness, responsibility, and other factors set forth in these Instructions, the award may be made to said Successful Bidder on its base Bid and any combination of its additive alternate Bids for which Owner determines funds will be available at the time of award.
- 19.04 Owner may conduct such investigations as Owner deems necessary to establish the responsibility, qualifications, and financial ability of Bidders and any proposed Subcontractors or Suppliers.

ARTICLE 20 – BONDS AND INSURANCE

- 20.01 Article 6 of the General Conditions, as may be modified by the Supplementary Conditions, sets forth Owner’s requirements as to performance and payment bonds and insurance. When the Successful Bidder delivers the Agreement (executed by Successful Bidder) to Owner, it shall be accompanied by required bonds and insurance documentation.

ARTICLE 21 – SIGNING OF AGREEMENT

- 21.01 When Owner issues a Notice of Award to the Successful Bidder, it shall be accompanied by the unexecuted counterparts of the Agreement along with the other Contract Documents as identified in the Agreement. Within 15 days thereafter, Successful Bidder shall execute and deliver the required number of counterparts of the Agreement (and any bonds and insurance documentation required to be delivered by the Contract Documents) to Owner. Within ten days thereafter, Owner shall deliver one fully executed counterpart of the Agreement to Successful Bidder, together with printed and electronic copies of the Contract Documents as stated in Paragraph 2.02 of the General Conditions.

ARTICLE 22 – WAGE RATES

- 22.01 The Work under these Bidding Documents is to be paid for by public funds; therefore, minimum prevailing wage rates published by the New York State Department of Labor shall be paid on this project. Reference Prevailing Wage Determination PRC#: 2025009309.

ARTICLE 23 – SALES AND USE TAXES

- 23.01 Owner is exempt from New York State sales and use taxes on materials and equipment to be incorporated in the Work. Said taxes shall not be included in the Bid. Refer to Paragraph SC-7.09 of the Supplementary Conditions for additional information.

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SECTION 00 41 16.01

BID FORM

CITY OF PLATTSBURGH
CITY OF PLATTSBURGH VETERANS MEMORIAL PARK IMPROVEMENTS
CONTRACT NO. 1 – GENERAL CONSTRUCTION

SUBMITTED BY:

ARTICLE 1 – BID RECIPIENT

1.01 This Bid is submitted to:

City of Plattsburgh
ATTN: City Clerk
41 City Hall Place
Plattsburgh, New York 12901

1.02 The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with Owner in the form included in the Bidding Documents to perform all Work as specified or indicated in the Bidding Documents for the prices and within the times indicated in this Bid and in accordance with the other terms and conditions of the Bidding Documents.

ARTICLE 2 – BIDDER’S ACKNOWLEDGEMENTS

2.01 Bidder accepts all of the terms and conditions of the Instructions to Bidders, including without limitation those dealing with the disposition of Bid security. This Bid will remain subject to acceptance for 45 days after the Bid opening, or for such longer period of time that Bidder may agree to in writing upon request of Owner.

ARTICLE 3 – BIDDER’S REPRESENTATIONS

3.01 In submitting this Bid, Bidder represents that:

A. 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:

<u>Addendum No.</u>	<u>Addendum Date</u>
<hr/>	<hr/>
<hr/>	<hr/>
<hr/>	<hr/>
<hr/>	<hr/>

- B. Bidder has visited the Site, conducted a thorough, alert visual examination of the Site and adjacent areas, and become familiar with and satisfied itself as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
- C. Bidder is familiar with and has satisfied itself as to all Laws and Regulations that may affect cost, progress, and performance of the Work.
- D. Bidder has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or adjacent to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings, and (2) reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings.
- E. Bidder has considered the information known to Bidder itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and any Site-related reports and drawings identified in the Bidding Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder; and (3) Bidder's safety precautions and programs.
- F. Bidder agrees, based on the information and observations referred to in the preceding paragraph, that no further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of this Bid for performance of the Work at the price bid and within the times required, and in accordance with the other terms and conditions of the Bidding Documents.
- G. Bidder is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents.
- H. Bidder has given Designer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents, and confirms that the written resolution thereof by Designer is acceptable to Bidder.
- I. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance and furnishing of the Work.
- J. The submission of this Bid constitutes an incontrovertible representation by Bidder that Bidder has complied with every requirement of this Article, and that without exception the Bid and all prices in the Bid are premised upon performing and furnishing the Work required by the Bidding Documents.

ARTICLE 4 – BIDDER'S CERTIFICATION

4.01 Bidder certifies that:

- A. This Bid is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any collusive agreement or rules of any group, association, organization, or corporation;
- B. Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid;
- C. Bidder has not solicited or induced any individual or entity to refrain from bidding;
- D. Bidder has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract. For the purposes of this Paragraph 4.01.D:

1. “corrupt practice” means the offering, giving, receiving, or soliciting of anything of value likely to influence the action of a public official in the bidding process;
2. “fraudulent practice” means an intentional misrepresentation of facts made (a) to influence the bidding process to the detriment of Owner, (b) to establish bid prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;
3. “collusive practice” means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish bid prices at artificial, non-competitive levels;
4. “coercive practice” means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

ARTICLE 5 – BASIS OF BID

5.01 General

Bidder will complete the work in accordance with the contract documents for the following price(s). All prices shall include full compensation for furnishing all labor, materials, equipment, tools, transportation, delivery, freight, handling, storage, supervision, permits, insurance, testing, quality control, cleanup, and all incidentals necessary to complete the work in place, fully functional, and ready for use. No separate payment will be made for incidental work or materials not specifically listed but required to complete the project as intended.

Failure to specifically list an item or cost shall not relieve the bidder from the responsibility of providing a complete and functional installation in accordance with the contract documents.

5.02 BASE BID ITEMS

Item	Description	Quantity	Unit	Unit Price	Extension
1.01	Veterans Memorial Park Improvements (excluding Alternatives)	1	LS		
Bidder's Total Base Bid					

BASE BID ITEM DESCRIPTIONS AND INCLUSIONS:

Item 1.01 Veterans Memorial Park Improvements (Excluding Alternates)

The Base Bid price shall include **all work shown and specified in the Contract Documents**, except those portions specifically identified as Alternates. The Base Bid shall be all-inclusive, covering but not limited to the following:

1. **Removals and Site Preparation:** Demolition and lawful disposal of existing materials, structures, pavements, vegetation, debris, and surplus excavated material as indicated.
2. **General Construction:** All improvements shown on the Drawings and specified in the Contract Documents (excluding Alternates), including earthwork, grading, pavements, walkways, hardscape, signage, lighting, foundations, utilities, and site features.
3. **Material Procurement and Delivery:** Furnishing, transporting, delivering, storing, and handling all materials, including applicable freight, protection, and incidental items.

4. **Installation:** Providing all labor, equipment, supervision, and methods required to install all specified elements, including alignment, leveling, testing, and adjustment for proper functionality.
5. **Cleanup and Restoration:** Removal of construction debris, final site cleanup, fine grading, topsoil replacement, seeding, and restoration of disturbed areas.
6. **Incidental Work:** All tasks not specifically described but required to deliver a fully complete and functional project.

5.03 BID ALTERNATES

The following Bid Alternates are additive or deductive, as indicated, and pricing for each Alternate shall be provided. All Alternates, whether additive or deductive, will be considered in determining the Contract Award, as set forth in the Instructions to Bidders. Pricing for each Alternate shall reflect the full cost of the Work associated with that Alternate, including all labor, materials, equipment, delivery, incidentals, and restoration necessary to provide a complete and fully functional installation.

Alternate No.	Description	Addition/ Deduction	Quantity	Unit	Unit Price	Extended Price
Alt 1	Landscape Planting Area to the north	Add	1	LS		
Alt 2	Concrete caps on existing memorial walls	Add	1	LS		
Alt 3	Removal of pea gravel at Purple Heart rock and replacement with colored concrete	Add	1	LS		
	Total of Alternates (if accepted)					

ALTERNATE WORK DESCRIPTIONS AND INCLUSIONS:

1. **Alternate 1 – Landscape Planting Area:** Furnishing and installing all specified plant material, soil preparation, mulch, edging, and restoration of adjacent disturbed areas.
2. **Alternate 2 – Concrete Caps on Existing Memorial Walls:** Furnishing, delivering, and installing concrete caps with required reinforcement, anchors, sealants, and surface finishes; protecting existing walls during installation.
3. **Alternate 3 – Removal of Pea Gravel and Replacement with Colored Concrete:** Removing and disposing of existing pea gravel, preparing subbase, forming, placing, finishing, curing, jointing, sealing, and treating colored concrete.

5.04 NOTES

1. The Owner reserves the right to accept or reject any combination of Alternates as determined to be in its best interest.

2. All bid prices shall be all-inclusive. No separate or additional payment will be made for incidentals, temporary facilities, mobilization, or items necessary for a complete and operational installation.

ARTICLE 6 – TIME OF COMPLETION

- 6.01 Bidder agrees that the Work and Milestones specified in Section 01 31 13, Project Coordination, 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.
- 6.02 Bidder accepts the provisions of the Agreement as to liquidated damages in the event of failure to complete the Work, and any specified Milestones, within Contract Times.

ARTICLE 7 – ATTACHMENTS TO THIS BID

- 7.01 The following documents are submitted with and made a condition of this Bid:
 - A. Required Bid Security
 - B. Non-Collusive Bidding Certification
 - C. Iranian Energy Sector Divestment Certification
 - D. Sexual Harassment Prevention Certification
 - E. Prohibition on Purchase of Tropical Hardwoods Certification

ARTICLE 8 – DEFINED TERMS

- 8.01 The terms used in this Bid with initial capital letters have the meanings stated in the Instructions to Bidders, the General Conditions, and the Supplementary Conditions.

ARTICLE 9 – BID SUBMITTAL

BIDDER: *[Indicate correct name of bidding entity]*

By: _____
[Signature]

[Printed name] _____
(If Bidder is a corporation, a limited liability company, a partnership, or a joint venture, attach evidence of authority to sign.)

Attest: _____
[Signature]

[Printed name] _____

Title: _____

Submittal Date: _____

Address for giving notices: _____

Telephone Number: _____

Fax Number: _____

Contact Name and E-mail Address: _____

Bidder's Federal
Employer Identification
Number (FEIN) _____

(For NYS Department of Labor reporting of Successful Bidder only)

SECTION 00 43 13

BID BOND

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

BIDDER (*Name and Address*):

SURETY (*Name, and Address of Principal Place of Business*):

OWNER (*Name and Address*):

BID

Bid Due Date:

Description (*Project Name— Include Location*):

BOND

Bond Number:

Date:

Penal sum _____ \$

(Words)

(Figures)

Surety and Bidder, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Bid Bond to be duly executed by an authorized officer, agent, or representative.

BIDDER

SURETY

Bidder's Name and Corporate Seal

Surety's Name and Corporate Seal

By: _____
Signature

By: _____
Signature (Attach Power of Attorney)

Print Name

Print Name

Title

Title

Attest: _____
Signature

Attest: _____
Signature

Title

Title

Note: Addresses are to be used for giving any required notice.

Provide execution by any additional parties, such as joint venturers, if necessary.

1. Bidder and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to pay to Owner upon default of Bidder the penal sum set forth on the face of this Bond. Payment of the penal sum is the extent of Bidder's and Surety's liability. Recovery of such penal sum under the terms of this Bond shall be Owner's sole and exclusive remedy upon default of Bidder.
2. Default of Bidder shall occur upon the failure of Bidder to deliver within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents.
3. This obligation shall be null and void if:
 - 3.1 Owner accepts Bidder's Bid and Bidder delivers within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents, or
 - 3.2 All Bids are rejected by Owner, or
 - 3.3 Owner fails to issue a Notice of Award to Bidder within the time specified in the Bidding Documents (or any extension thereof agreed to in writing by Bidder and, if applicable, consented to by Surety when required by Paragraph 5 hereof).
4. Payment under this Bond will be due and payable upon default of Bidder and within 30 calendar days after receipt by Bidder and Surety of written notice of default from Owner, which notice will be given with reasonable promptness, identifying this Bond and the Project and including a statement of the amount due.
5. Surety waives notice of any and all defenses based on or arising out of any time extension to issue Notice of Award agreed to in writing by Owner and Bidder, provided that the total time for issuing Notice of Award including extensions shall not in the aggregate exceed 120 days from the Bid due date without Surety's written consent.
6. No suit or action shall be commenced under this Bond prior to 30 calendar days after the notice of default required in Paragraph 4 above is received by Bidder and Surety and in no case later than one year after the Bid due date.
7. Any suit or action under this Bond shall be commenced only in a court of competent jurisdiction located in the state in which the Project is located.
8. Notices required hereunder shall be in writing and sent to Bidder and Surety at their respective addresses shown on the face of this Bond. Such notices may be sent by personal delivery, commercial courier, or by United States Registered or Certified Mail, return receipt requested, postage pre-paid, and shall be deemed to be effective upon receipt by the party concerned.
9. Surety shall cause to be attached to this Bond a current and effective Power of Attorney evidencing the authority of the officer, agent, or representative who executed this Bond on behalf of Surety to execute, seal, and deliver such Bond and bind the Surety thereby.
10. This Bond is intended to conform to all applicable statutory requirements. Any applicable requirement of any applicable statute that has been omitted from this Bond shall be deemed to be included herein as if set forth at length. If any provision of this Bond conflicts with any applicable statute, then the provision of said statute shall govern and the remainder of this Bond that is not in conflict therewith shall continue in full force and effect.
11. The term "Bid" as used herein includes a Bid, offer, or proposal as applicable.

SECTION 00 43 93

BIDDER'S CHECKLIST

Section 00 41 16.01, Bid Form. All blanks appropriately filled in ink with both words and figures, and signed where applicable.

☐

Section 00 43 13, Bid Bond. Execute and attach Bid security.

☐

State and Federal requirements: Each of the following forms must be complete and executed:

Section 00 45 19, Non-Collusive Bidding Certification. Requires bidder signature.

☐

Section 00 45 34, Iranian Energy Sector Divestment Certification. Requires bidder signature.

☐

Section 00 45 35, Sexual Harassment Prevention Certification. Requires bidder signature.

☐

Section 00 45 45, Prohibition on Purchase of Tropical Hardwoods Certification. Requires bidder signature.

☐

+ + END OF SECTION + +

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SECTION 00 45 19

NON-COLLUSIVE BIDDING CERTIFICATION

- (a) By submission of this bid, each bidder and each person signing on behalf of any bidder certifies, and in the case of a joint bid each party thereto certifies as to its own organization, under penalty of perjury, that to the best of 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; and
 3. No attempt has been made or will be made by the bidder to induce any other person, partnership or corporation to submit or not to submit a bid for the purpose of restricting competition.
- (b) A bid shall not be considered for award nor shall any award be made where (a) 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 shall furnish with the bid a signed statement which sets forth in detail the reasons therefore. Where (a) 1., 2., and 3., above have not been complied with the bid shall not be considered for award nor shall any award to 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.
- (c) 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 paragraph (a) of this certification.
- (d) 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 the 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.

FIRM: _____

By: _____

Title: _____

(CORPORATE SEAL IF ANY)

+ + END OF SECTION + +

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SECTION 00 45 34

IRANIAN ENERGY SECTOR DIVESTMENT CERTIFICATION

1. Bidder hereby represents that said Bidder is in compliance with New York State General Municipal Law Section 103-g entitled “Iranian Energy Sector Divestment”, in that Bidder has not:
 - a) Provided goods or services of \$20 million or more in the energy sector of Iran including but not limited to the provision of oil or liquefied natural gas tankers or products used to construct or maintain pipelines used to transport oil or liquefied natural gas for the energy sector of Iran; or
 - b) Acted as a financial institution and extended \$20 million or more in credit to another person for forty-five (45) days or more, if that person’s intent was to use the credit to provide goods or services in the energy sector in Iran.
2. Any Bidder who has undertaken any of the above and is identified on a list created pursuant to Section 165-a (3) (b) of the New York State Finance Law as a person engaging in investment activities in Iran, shall not be deemed a responsible bidder pursuant to Section 103 of the New York State General Municipal Law.
3. Except as otherwise specifically provided herein, every Bidder submitting a Bid in response to this Advertisement for Bid must certify and affirm the following under penalties of perjury:
 - a) “By submission of this bid, the Bidder and each person signing on behalf of the Bidder certifies and in the case of a joint Bid, each party thereto certifies as to its own organization, under penalty of perjury, that to the best of its knowledge and belief, that Bidder is not on the list created pursuant to NYS Finance Law Section 165-a (3) (b).”

The Owner will accept this statement electronically in accordance with the provisions of Section 103 of the General Municipal Law.
4. Except as otherwise specifically provided herein, any Bidder that is submitted without having complied with subdivision (a) above, shall not be considered for award. In any case where the Bidder cannot make the certification as set forth in subdivision (a) above, the Bidder shall so state and shall furnish with the bid a signed statement setting forth in detail the reasons therefore. The Owner reserves its rights, in accordance with General Municipal Law Section 103-g to award the Bid to any Bidder who cannot make the certification, on a case-by-case basis under the following circumstances:
 - a) The investment activities in Iran were made before April 12, 2012, the investment activities in Iran have not been expanded or renewed after April

12, 2012 and the Bidder has adopted, publicized and is implementing a formal plan to cease the investment activities in Iran and to refrain from engaging in any new investments in Iran; or

- b) The Owner has made a determination that the goods or services are necessary for the Owner to perform its functions and that, absent such an exemption, the Owner would be unable to obtain the goods or services for which the Bidder is offered. Such determination shall be made by the Owner in writing and shall be a public document.

Signature

Title

Company Name

Date

State of _____)
County of _____) SS:

On this _____ day of _____, 20____, before me personally came and appeared _____ to me known and known to me to be the person described in and who executed the foregoing instrument and acknowledged that he executed the same.

++ END OF SECTION ++

SECTION 00 45 35

SEXUAL HARASSMENT PREVENTION CERTIFICATION

By Submission of this bid, each bidder and each person signing on behalf of any bidder certifies, and in the case of a joint bid each party thereto certifies as to its own organization, under penalty of perjury, that to the best of that person's knowledge and belief:

- (1) In accordance with State Finance Law 139-L, bidder has and has implemented a written policy addressing sexual harassment prevention in the workplace;
- (2) Bidder provides annual sexual harassment prevention training to all of its employees;
- (3) Bidders sexual harassment policy, at a minimum, meets the requirements of section 201-G of the State Labor Law.

I hereby affirm under penalties of perjury that the foregoing statement is true.

Bidder: _____

By: _____

(Please type or print name)

Title: _____

Any bid made by a corporate bidder for work or services 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 bids and the inclusion therein of this certificate.

+ + END OF SECTION + +

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SECTION 00 45 45

PROHIBITION ON PURCHASE OF TROPICAL HARDWOODS CERTIFICATION

- A. Bidder hereby certifies and warrants that all wood products to be used under this Contract award will be in accordance with, but not limited to, the specifications and provisions of Section 165 of the State Finance Law, (Use of Tropical Hardwoods).
1. Which prohibits purchase and use of tropical hardwoods, unless specifically exempted, by the State of any government agency or political subdivision or public benefit corporation.
 2. In addition, when any portion of this Contract involving the use of woods, whether supply or installation, is to be performed by any subcontractor, the prime Contractor certifies through the submitted bid proposal that any and all subcontractors have been informed and are in compliance with the specification's and provisions regarding use of tropical hardwoods as detailed in Section 165 of New York State Finance law.
- B. Qualifications for an exemption under this law will be the responsibility of the Bidder to establish to meet with the approval of the State. Otherwise, the bid may not be considered responsive. Upon executing this certification the Bidder acknowledges that proof of qualifications for exemption are the Bidder's responsibility to meet with the approval of the state.
- C. Except as otherwise specifically provided herein, every contractor/ proposer submitting a bid in response to this request for bids must certify and affirm the following under penalties of perjury:
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 to the best of its knowledge and belief, wood to be used under this contract award complies with New York State Finance Law Section 165".

FIRM: _____

By: _____

Title: _____

(CORPORATE SEAL IF ANY)

STATE OF)
) SS:
COUNTY OF)

On this _____ day of _____, 20____, before me personally
came and appeared _____ to me known and
known to me to be the person described in and who executed the foregoing instrument and
acknowledged that he executed the same.

++ END OF SECTION ++

SECTION 00 51 00

NOTICE OF AWARD

Date of Issuance:

Owner:

Owner's Contract No.:

Engineer:

Engineer's Project No.:

Project:

Contract Name:

Bidder:

Bidder's

Address:

TO BIDDER:

You are notified that Owner has accepted your Bid dated [] for the above Contract, and that you are the Successful Bidder and are awarded a Contract for:

The Contract Price of the awarded Contract is: \$ []

Six (6) unexecuted counterparts of the Agreement and one copy of the Contract Documents accompanies this Notice of Award, or has been transmitted or made available to Bidder electronically.

☐ a set of the Drawings will be delivered separately from the other Contract Documents.

You must comply with the following conditions precedent within 15 days of the date of this Notice of Award:

1. Deliver to Owner three (3) counterparts of the Agreement, fully executed by Bidder.
2. Deliver with the executed Agreement(s) the Contract security and insurance documentation as specified in the Instructions to Bidders and General Conditions, Articles 2 and 6.
3. Other conditions precedent (if any):

Failure to comply with these conditions within the time specified will entitle Owner to consider you in default, annul this Notice of Award, and declare your Bid security forfeited.

Within ten days after you comply with the above conditions, Owner will return to you one fully executed counterpart of the Agreement, together with any additional copies of the Contract Documents as indicated in Paragraph 2.02 of the General Conditions.

Owner:

Authorized Signature

By:

Title:

Copy: Resident Project Engineer

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SECTION 00 52 13

AGREEMENT

THIS AGREEMENT is by and
between _____ CITY OF PLATTSBURGH _____ (“Owner”) and
_____ (“Contractor”).

Owner and Contractor hereby agree as follows:

ARTICLE 1 – WORK

- 1.01 Contractor shall complete all Work as specified or indicated in the Contract Documents. The Work is generally described as follows:

ARTICLE 2 – THE PROJECT

- 2.01 *The Project, of which the Work under the Contract Documents is a part, is generally described as follows:* City of Plattsburgh Veterans Memorial Park Improvements Project, Contract No. 1 – General Construction.

ARTICLE 3 – ENGINEER

- 3.01 The part of the Project that pertains to the Work has been designed by Barton & Loguidice, D.P.C. (“Engineer”).
- 3.02 The Owner will act as their own Owner’s representative, assume all duties and responsibilities, and have the rights and authority assigned to Engineer in the Contract Documents in connection with the completion of the Work in accordance with the Contract Documents.

ARTICLE 4 – CONTRACT TIMES

4.01 *Time of the Essence*

- A. All time limits for Milestones, if any, Substantial Completion, and completion and readiness for final payment as stated in the Contract Documents are of the essence of the Contract.

4.02 *Contract Times: Days*

- A. The Work will be substantially completed within 60 days after the date when the Contract Times commence to run as provided in Paragraph 4.01 of the General Conditions, and completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions within 90 days after the date when the Contract Times commence to run.

4.03 *Liquidated Damages*

- A. Contractor and Owner recognize that time is of the essence as stated in Paragraph 4.01 above and that Owner will suffer financial and other losses if the Work is not completed and Milestones not achieved within the times specified in Paragraph 4.02 above, plus any extensions thereof allowed in accordance with the Contract. 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):

1. Substantial Completion: Contractor shall pay Owner FIVE HUNDRED (\$500.00) for each day that expires after the time (as duly adjusted pursuant to the Contract) specified in Paragraph 4.02.A above for Substantial Completion until the Work is substantially complete.
2. Completion of Remaining Work: After Substantial Completion, if Contractor shall neglect, refuse, or fail to complete the remaining Work within the Contract Times (as duly adjusted pursuant to the Contract) for completion and readiness for final payment, Contractor shall pay Owner FIVE HUNDRED (\$500) for each day that expires after such time until the Work is completed and ready for final payment.
3. Liquidated damages for failing to timely attain Substantial Completion and final completion are not additive and will not be imposed concurrently.

ARTICLE 5 – CONTRACT PRICE

5.01 Owner shall pay Contractor for completion of the Work in accordance with the Contract Documents the amounts that follow, subject to adjustment under the Contract:

- A. All specific cash allowances are included in the above price in accordance with Paragraph 13.02 of the General Conditions.
- B. For all Unit Price Work, an amount equal to the sum of the extended prices (established for each separately identified item of Unit Price Work by multiplying the unit price times the actual quantity of that item):

The extended prices for Unit Price Work set forth as of the Effective Date of the Contract are based on estimated quantities included in the Bid Form. As provided in Paragraph 13.03 of the General Conditions, estimated quantities are not guaranteed, and determinations of actual quantities and classifications are to be made by Designer.

- C. Total of Lump Sum Amount and Unit Price Work (subject to final Unit Price adjustment)

_____ Dollars

(words)

And _____ cents \$ _____

(words)

(figures)

- D. For all Work, at the prices stated in Contractor's Bid, attached hereto as an exhibit.

ARTICLE 6 – PAYMENT PROCEDURES

6.01 *Submittal and Processing of Payments*

- A. Contractor shall submit Applications for Payment in accordance with Article 15 of the General Conditions. Applications for Payment will be processed by Engineer as provided in the General Conditions.

6.02 *Progress Payments; Retainage*

- A. Owner shall make progress payments on account of the Contract Price on the basis of Contractor's Applications for Payment on or about the 30th day of each month during performance of the Work as provided in Paragraph 6.02.A.1 below, provided that such Applications for Payment have been submitted in a timely manner and otherwise meet the requirements of the Contract. All such payments will be measured by the Schedule of Values established as provided in the General Conditions (and in the case of Unit Price Work based on the number of units completed) or, in the event there is no Schedule of Values, as provided elsewhere in the Contract.
 - 1. Prior to Substantial Completion, progress payments will be made in an amount equal to the percentage indicated below but, in each case, less the aggregate of payments previously made and less such amounts as Owner may withhold, including but not limited to liquidated damages, in accordance with the Contract:
 - a. Ninety-five (95) percent of Work completed (with the balance being retainage). If the Work has been 50 percent completed as determined by Engineer, and if the character and progress of the Work have been satisfactory to Owner and Engineer, then as long as the character and progress of the Work remain satisfactory to Owner and Engineer, there will be no additional retainage; and
- B. Upon Substantial Completion, Owner shall pay an amount sufficient to increase total payments to Contractor to one hundred (100) percent of the Work completed, less such amounts set off by Owner pursuant to Paragraph 15.01.E of the General Conditions, and less two times the Engineer's estimate of the value of Work to be completed or corrected as shown on the punch list of items to be completed or corrected prior to final payment.

6.03 *Final Payment*

- A. Upon final completion and acceptance of the Work in accordance with Paragraph 15.06 of the General Conditions, Owner shall pay the remainder of the Contract Price as recommended by Engineer as provided in said Paragraph 15.06.

ARTICLE 7 – INTEREST

- 7.01 All amounts not paid when due shall bear interest at the rate of 1.5 percent per annum, unless otherwise prescribed by Law.

ARTICLE 8 – CONTRACTOR'S REPRESENTATIONS

- 8.01 In order to induce Owner to enter into this Contract, Contractor makes the following representations:
- A. Contractor has examined and carefully studied the Contract Documents, and any data and reference items identified in the Contract Documents.
 - B. Contractor has visited the Site, conducted a thorough, alert visual examination of the Site and adjacent areas, and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
 - C. Contractor is familiar with and is satisfied as to all Laws and Regulations that may affect cost, progress, and performance of the Work.
 - D. Contractor has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or adjacent to the Site and all drawings of physical conditions relating to

existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings, and (2) reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings.

- E. Contractor has considered the information known to Contractor itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Contract Documents; and the Site-related reports and drawings identified in the Contract Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor; and (3) Contractor's safety precautions and programs.
- F. Based on the information and observations referred to in the preceding paragraph, Contractor agrees that no further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract.
- G. Contractor is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Contract Documents.
- H. Contractor has given Designer written notice of all conflicts, errors, ambiguities, or discrepancies that Contractor has discovered in the Contract Documents, and the written resolution thereof by Designer is acceptable to Contractor.
- I. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.
- J. Contractor's entry into this Contract constitutes an incontrovertible representation by Contractor that without exception all prices in the Agreement are premised upon performing and furnishing the Work required by the Contract Documents.

ARTICLE 9 – CONTRACT DOCUMENTS

9.01 *Contents*

- A. The Contract Documents consist of the following:
 - 1. This Agreement (pages 1 to 8, inclusive).
 - 2. Performance bond (pages 1 to 4, inclusive).
 - 3. Payment bond (pages 1 to 4, inclusive).
 - 4. General Conditions (pages 1 to 73, inclusive).
 - 5. Supplementary Conditions (pages 1 to 13, inclusive).
 - 6. Division 01 through Division 49 Specifications, as listed in the Table of Contents of the Project Manual.
 - 7. Drawings (not attached but incorporated by reference) consisting of six (6) sheets with each sheet bearing the following general title: City of Plattsburgh Veterans Memorial Park Improvements Project, Contract No. 1 – General Construction.
 - 8. Addenda (numbers ____ to ____, inclusive).

9. Exhibits to this Agreement (enumerated as follows):
 - a. Contractor's Bid.
10. The following which may be delivered or issued on or after the Effective Date of the Contract and are not attached hereto:
 - a. Notice to Proceed.
 - b. Work Change Directives.
 - c. Change Orders.
 - d. Field Orders.
- B. The documents listed in Paragraph 9.01.A are attached to this Agreement (except as expressly noted otherwise above).
- C. There are no Contract Documents other than those listed above in this Article 9.
- D. The Contract Documents may only be amended, modified, or supplemented as provided in the General Conditions.

ARTICLE 10 – MISCELLANEOUS

10.01 *Terms*

- A. Terms used in this Agreement will have the meanings stated in the General Conditions and the Supplementary Conditions.

10.02 *Assignment of Contract*

- A. Unless expressly agreed to elsewhere in the Contract, no assignment by a party hereto of any rights under or interests in the Contract will be binding on another party hereto 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 Documents.

10.03 *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.

10.04 *Severability*

- A. Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon Owner and Contractor, who agree that the Contract Documents shall 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.

10.05 *Contractor's Certifications*

- A. Contractor certifies that it has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for or in executing the Contract. For the purposes of this Paragraph 10.05:
1. "corrupt practice" means the offering, giving, receiving, or soliciting of anything of value likely to influence the action of a public official in the bidding process or in the Contract execution;
 2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process or the execution of the Contract to the detriment of Owner, (b) to establish Bid or Contract prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;
 3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish Bid prices at artificial, non-competitive levels; and
 4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

B. IN WITNESS WHEREOF, Owner and Contractor have signed this Agreement.
This Agreement will be effective on _____ (which is the Effective Date of the Contract).

OWNER:

CONTRACTOR:

CITY OF PLATTSBURGH

By: _____

By: _____

Title: _____

Title: _____
*(If Contractor is a corporation, a partnership,
or a joint venture, attach evidence of authority
to sign.)*

Attest: _____

Attest: _____

Title: _____

Title: _____

Address for giving notices:

Address for giving notices:

License No.: _____
(where applicable)

*(If Owner is a corporation, attach evidence of
authority to sign. If Owner is a public body,
attach evidence of authority to sign and
resolution or other documents authorizing
execution of this Agreement.)*

Certification of the Owner's Attorney

I, the undersigned, the duly authorized and acting legal representative of the City of Plattsburgh do hereby certify as follows:

I have examined the foregoing Contract and surety bonds and the matter of execution thereof, and I am of the opinion that each of the aforesaid agreements has been duly executed by the proper parties thereto acting through their duly authorized representatives; that said representatives have full power and authority to execute said agreements on behalf of the respective parties thereon; and that the foregoing agreements constitute valid and legally binding obligations upon the parties executing the same in accordance with the terms, conditions, and provisions thereof.

By: _____

Owner's Attorney

Date

+ + END OF SECTION + +

SECTION 00 55 00

NOTICE TO PROCEED

Owner:	Owner's Contract No.:
Contractor:	Contractor's Project No.:
Engineer:	Engineer's Project No.:
Project:	Contract Name:
	Effective Date of Contract:

TO CONTRACTOR:

Owner hereby notifies Contractor that the Contract Times under the above Contract will commence to run on [REDACTED], 20[REDACTED].

On that date, Contractor shall start performing its obligations under the Contract Documents. No Work shall be done at the Site prior to such date. In accordance with the Agreement, the date of Substantial Completion is _____, and the date of readiness for final payment is _____].

Before starting any Work at the Site, Contractor must comply with the following:

[Note any access limitations, security procedures, or other restrictions]

Owner:

By: _____ Authorized Signature
Title:
Date Issued:

Copy: Resident Project Engineer

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SECTION 00 61 13

SUBCONTRACTOR'S VERIFIED STATEMENT
(SECTION 220-a OF NEW YORK LABOR LAW)

STATE OF NEW YORK)
COUNTY OF _____)ss.:

_____, being duly sworn, deposes and states:

1. That I am an officer of _____ (hereinafter referred to as "the Subcontractor"), a subcontractor on public contract number _____ (hereinafter "the Contract") and I am duly authorized to make this Verified Statement on behalf of the firm.
2. That I make this Verified Statement in order to comply with the provisions of Section 220-a of New York Labor Law.
3. That on _____, the Subcontractor received from _____, the public improvement contractor/subcontractor that engaged this firm as a subcontractor on the Contract, a copy of the initial/revised schedule of wages and supplements Prevailing Rate Case Number ____ (PRC) specified in the Contract.
4. That the Subcontractor has reviewed such schedule(s) of wages and supplements, and agrees to pay the applicable prevailing wages and to pay or provide the supplements specified therein.
5. I have read this Subcontractor's Verified Statement and know the contents thereof; and the same is true to my own knowledge. This Verified Statement is made by me, a person acquainted with the facts of this matter, and is made under penalty of perjury.

SIGNATURE

PRINT NAME

NAME OF SUBCONTRACTOR

TITLE WITH SUBCONTRACTOR

On this ____ day of _____, 20____, before me personally appeared _____, to me known, and known to me to be one of the firm of _____ described in and who executed the foregoing Verified Statement, and he/she thereupon acknowledged to me that he/she executed the same as and for the act and deed of said firm.

Notary Public

If this verified statement is verified by an oath administered by a notary public in a foreign country other than Canada, it must be accompanied by a certificate authenticating the authority of the notary who administers the oath. (See New York CPLR Section 2309(c); New York Real Property Law Sections 311 and 312).

STATE OF NEW YORK)
COUNTY OF _____)ss.:

1. That I am an officer of _____ (hereinafter referred to as “the Contractor”) and am duly authorized to make this Verified Statement on behalf of the Contractor on public contract number _____ (hereinafter “the Contract”).
2. That the Contractor fully comprehends the terms and provisions of Section 220-a of the Labor Law.
3. That the Contractor hereby files every verified statement required to be obtained by the Contractor from the subcontractors.
4. That, except as herein stated, there are no amounts due and owing from the Contractor to or on behalf of any and all laborers for daily or weekly wages or supplements on account of labor performed upon the work under the Contract. (Set forth below the names of the persons whose wages or supplements are unpaid and the amount due to each or on behalf of each, respectively. If there are none, please write “N/A”).

-
-
-
-
-

- SUBCONTRACTOR'S VERIFIED STATEMENT
00 61 13-3

6. In the event it is determined by the Commissioner of Labor that the wages or supplements or both of any employees of the Contractor's subcontractors and subcontractors of the Contractor's subcontractors have not been paid or provided pursuant to the appropriate schedule of wages and supplements, the Contractor shall be responsible for payment of such wages or supplements pursuant to the provisions of Section 223 of New York Labor Law.
7. I have read this Contractor's Verified Statement and know the contents thereof; and the same is true to my own knowledge, except with respect to wages and supplements owing by subcontractors, which is stated upon information and belief, and, with respect to wages and supplements owing by subcontractors, I believe it to be true. This Verified Statement is made by me, a person acquainted with the facts of this matter, and is made under penalty of perjury.

SIGNATURE

PRINT NAME

NAME OF CONTRACTOR

TITLE WITH CONTRACTOR

On this ____ day of _____, 20____, before me personally appeared _____, to me known, and known to me to be one of the firm of _____ described in and who executed the Verified Statement, and he/she thereupon acknowledged to me that he/she executed the same as and for the act and deed of said firm.

Notary Public

If this affidavit is verified by an oath administered by a notary public in a foreign country other than Canada, it must be accompanied by a certificate authenticating the authority of the notary who administers the oath. (See New York CPLR Section 2309(c); New York Real Property Law Sections 311 and 312).

(NEW YORK STATE)

SECTION 00 61 13.13
PERFORMANCE BOND

07.25
853.027.001

PERFORMANCE BOND
00 61 13.13-1

PERFORMANCE BOND

CONTRACTOR *(name and address):*

SURETY *(name and address of principal place of business):*

OWNER *(name and address):*

CONSTRUCTION CONTRACT

Effective Date of the Agreement:

Amount:

Description *(name and location):*

BOND

Bond Number:

Date *(not earlier than the Effective Date of the Agreement of the Construction Contract):*

Amount:

Modifications to this Bond Form: ☐ None ☐ See Paragraph 16

Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Performance Bond to be duly executed by an authorized officer, agent, or representative.

CONTRACTOR AS PRINCIPAL

SURETY

Contractor's Name and Corporate Seal

Surety's Name and Corporate Seal

By: _____
Signature

By: _____
Signature *(attach power of attorney)*

Print Name

Print Name

Title

Title

Attest: _____
Signature

Attest: _____
Signature

Title

Title

Notes: (1) Provide supplemental execution by any additional parties, such as joint venturers. (2) Any singular reference to Contractor, Surety, Owner, or other party shall be considered plural where applicable.

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

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

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

3.1 The Owner first provides notice to the Contractor and the Surety that the Owner is considering declaring a Contractor Default. Such notice shall indicate whether the Owner is requesting a conference among the Owner, Contractor, and Surety to discuss the Contractor's performance. If the Owner does not request a conference, the Surety may, within five (5) business days after receipt of the Owner's notice, request such a conference. If the Surety timely requests a conference, the Owner shall attend. Unless the Owner agrees otherwise, any conference requested under this Paragraph 3.1 shall be held within ten (10) business days of the Surety's receipt of the Owner's notice. If the Owner, the Contractor, and the Surety agree, the Contractor shall be allowed a reasonable time to perform the Construction Contract, but such an agreement shall not waive the Owner's right, if any, subsequently to declare a Contractor Default;

3.2 The Owner declares a Contractor Default, terminates the Construction Contract and notifies the Surety; and

3.3 The Owner has agreed to pay the Balance of the Contract Price in accordance with the terms of the Construction Contract to the Surety or to a contractor selected to perform the Construction Contract.

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

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

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

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

5.3 Obtain bids or negotiated proposals from qualified contractors acceptable to the Owner for a contract for performance and completion of the Construction Contract, arrange for a contract to be prepared for execution by the Owner and a contractor selected with the Owners concurrence,

to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Construction Contract, and pay to the Owner the amount of damages as described in Paragraph 7 in excess of the Balance of the Contract Price incurred by the Owner as a result of the Contractor Default; or

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

5.4.1 After investigation, determine the amount for which it may be liable to the Owner and, as soon as practicable after the amount is determined, make payment to the Owner; or

5.4.2 Deny liability in whole or in part and notify the Owner, citing the reasons for denial.

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

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

7.1 the responsibilities of the Contractor for correction of defective work and completion of the Construction Contract;

7.2 additional legal, design professional, and delay costs resulting from the Contractor's Default, and resulting from the actions or failure to act of the Surety under Paragraph 5; and

7.3 liquidated damages, or if no liquidated damages are specified in the Construction Contract, actual damages caused by delayed performance or non-performance of the Contractor.

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

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

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

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

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

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

14. Definitions

14.1 Balance of the Contract Price: The total amount payable by the Owner to the Contractor under the Construction Contract after all proper adjustments have been made including allowance for the Contractor for any amounts received or to be received by the Owner in settlement of insurance or other claims

for damages to which the Contractor is entitled, reduced by all valid and proper payments made to or on behalf of the Contractor under the Construction Contract.

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

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

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

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

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

16. Modifications to this Bond are as follows:

SECTION 00 61 13.16

PAYMENT BOND

07.25
853.027.001

PAYMENT BOND
00 61 13.16-1

PAYMENT BOND

CONTRACTOR *(name and address)*:

SURETY *(name and address of principal place of business)*:

OWNER *(name and address)*:

CONSTRUCTION CONTRACT

Effective Date of the Agreement:

Amount:

Description *(name and location)*:

BOND

Bond Number:

Date *(not earlier than the Effective Date of the Agreement of the Construction Contract)*:

Amount:

Modifications to this Bond Form: ☐ None ☐ See Paragraph 18

Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Payment Bond to be duly executed by an authorized officer, agent, or representative.

CONTRACTOR AS PRINCIPAL

SURETY

Contractor's Name and Corporate Seal

Surety's Name and Corporate Seal

By: _____
Signature

By: _____
Signature *(attach power of attorney)*

Print Name

Print Name

Title

Title

Attest: _____
Signature

Attest: _____
Signature

Title

Title

Notes: (1) Provide supplemental execution by any additional parties, such as joint venturers. (2) Any singular reference to Contractor, Surety, Owner, or other party shall be considered plural where applicable.

1. The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to the Owner to pay for labor, materials, and equipment furnished for use in the performance of the Construction Contract, which is incorporated herein by reference, subject to the following terms.
2. If the Contractor promptly makes payment of all sums due to Claimants, and defends, indemnifies, and holds harmless the Owner from claims, demands, liens, or suits by any person or entity seeking payment for labor, materials, or equipment furnished for use in the performance of the Construction Contract, then the Surety and the Contractor shall have no obligation under this Bond.
3. If there is no Owner Default under the Construction Contract, the Surety's obligation to the Owner under this Bond shall arise after the Owner has promptly notified the Contractor and the Surety (at the address described in Paragraph 13) of claims, demands, liens, or suits against the Owner or the Owner's property by any person or entity seeking payment for labor, materials, or equipment furnished for use in the performance of the Construction Contract, and tendered defense of such claims, demands, liens, or suits to the Contractor and the Surety.
4. When the Owner has satisfied the conditions in Paragraph 3, the Surety shall promptly and at the Surety's expense defend, indemnify, and hold harmless the Owner against a duly tendered claim, demand, lien, or suit.
5. The Surety's obligations to a Claimant under this Bond shall arise after the following:
 - 5.1 Claimants who do not have a direct contract with the Contractor,
 - 5.1.1 have furnished a written notice of non-payment to the Contractor, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were, or equipment was, furnished or supplied or for whom the labor was done or performed, within ninety (90) days after having last performed labor or last furnished materials or equipment included in the Claim; and
 - 5.1.2 have sent a Claim to the Surety (at the address described in Paragraph 13).
 - 5.2 Claimants who are employed by or have a direct contract with the Contractor have sent a Claim to the Surety (at the address described in Paragraph 13).
6. If a notice of non-payment required by Paragraph 5.1.1 is given by the Owner to the Contractor, that is sufficient to satisfy a Claimant's obligation to furnish a written notice of non-payment under Paragraph 5.1.1.
7. When a Claimant has satisfied the conditions of Paragraph 5.1 or 5.2, whichever is applicable, the Surety shall promptly and at the Surety's expense take the following actions:
 - 7.1 Send an answer to the Claimant, with a copy to the Owner, within sixty (60) days after receipt of the Claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed; and
 - 7.2 Pay or arrange for payment of any undisputed amounts.
 - 7.3 The Surety's failure to discharge its obligations under Paragraph 7.1 or 7.2 shall not be deemed to constitute a waiver of defenses the Surety or Contractor may have or acquire as to a Claim, except as to undisputed amounts for which the Surety and Claimant have reached agreement. If, however, the Surety fails to discharge its obligations under Paragraph 7.1 or 7.2, the Surety shall indemnify the Claimant for the reasonable attorney's fees the Claimant incurs thereafter to recover any sums found to be due and owing to the Claimant.
8. The Surety's total obligation shall not exceed the amount of this Bond, plus the amount of reasonable attorney's fees provided under Paragraph 7.3, and the amount of this Bond shall be credited for any payments made in good faith by the Surety.
9. Amounts owed by the Owner to the Contractor under the Construction Contract shall be used for the performance of the Construction Contract and to satisfy claims, if any, under any construction performance bond. By the Contractor furnishing and the Owner accepting this Bond, they agree that all funds earned by the Contractor in the performance of the Construction Contract are dedicated to satisfy obligations of the Contractor and Surety under this Bond, subject to the Owner's priority to use the funds for the completion of the work.
10. The Surety shall not be liable to the Owner, Claimants, or others for obligations of the Contractor that are unrelated to the Construction Contract. The Owner shall not be liable for the payment of any costs or expenses of any Claimant under this Bond, and shall have under this Bond no obligation to make payments to or give notice on behalf of Claimants, or otherwise have any obligations to Claimants under this Bond.
11. The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders, and other obligations.

12. No suit or action shall be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the state in which the project that is the subject of the Construction Contract is located or after the expiration of one year from the date (1) on which the Claimant sent a Claim to the Surety pursuant to Paragraph 5.1.2 or 5.2, or (2) on which the last labor or service was performed by anyone or the last materials or equipment were furnished by anyone under the Construction Contract, whichever of (1) or (2) first occurs. If the provisions of this paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.
13. Notice and Claims to the Surety, the Owner, or the Contractor shall be mailed or delivered to the address shown on the page on which their signature appears. Actual receipt of notice or Claims, however accomplished, shall be sufficient compliance as of the date received.
14. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.
15. Upon requests by any person or entity appearing to be a potential beneficiary of this Bond, the Contractor and Owner shall promptly furnish a copy of this Bond or shall permit a copy to be made.
16. **Definitions**
- 16.1 **Claim:** A written statement by the Claimant including at a minimum:
1. The name of the Claimant;
 2. The name of the person for whom the labor was done, or materials or equipment furnished;
 3. A copy of the agreement or purchase order pursuant to which labor, materials, or equipment was furnished for use in the performance of the Construction Contract;
 4. A brief description of the labor, materials, or equipment furnished;
 5. The date on which the Claimant last performed labor or last furnished materials or equipment for use in the performance of the Construction Contract;
 6. The total amount earned by the Claimant for labor, materials, or equipment furnished as of the date of the Claim;
 7. The total amount of previous payments received by the Claimant; and
8. The total amount due and unpaid to the Claimant for labor, materials, or equipment furnished as of the date of the Claim.
- 16.2 **Claimant:** An individual or entity having a direct contract with the Contractor or with a subcontractor of the Contractor to furnish labor, materials, or equipment for use in the performance of the Construction Contract. The term Claimant also includes any individual or entity that has rightfully asserted a claim under an applicable mechanic's lien or similar statute against the real property upon which the Project is located. The intent of this Bond shall be to include without limitation in the terms of "labor, materials, or equipment" that part of the water, gas, power, light, heat, oil, gasoline, telephone service, or rental equipment used in the Construction Contract, architectural and engineering services required for performance of the work of the Contractor and the Contractor's subcontractors, and all other items for which a mechanic's lien may be asserted in the jurisdiction where the labor, materials, or equipment were furnished.
- 16.3 **Construction Contract:** The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and all changes made to the agreement and the Contract Documents.
- 16.4 **Owner Default:** Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.
- 16.5 **Contract Documents:** All the documents that comprise the agreement between the Owner and Contractor.
17. If this Bond is issued for an agreement between a contractor and subcontractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.
18. Modifications to this Bond are as follows:

SECTION 00 62 16
CERTIFICATE OF INSURANCE

07.25
853.027.001

CERTIFICATE OF INSURANCE
00 62 16-1

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SECTION 00 63 36

FIELD ORDER

Field Order 001

Date of Issuance: XX/XX/20XX

Effective Date:

Owner:

Owner's Contract No.:

Contractor:

Contractor's Project No.:

Engineer:

Engineer's Project No.:

Project:

Contract Name:

Contractor is hereby directed to promptly execute this Field Order, issued in accordance with General Conditions Paragraph 11.01, for minor changes in the Work without changes in Contract Price or Contract Times. If Contractor considers that a change in Contract Price or Contract Times is required, submit a Change Proposal before proceeding with this Work.

Reference:

Specification(s)

Drawing(s) / Detail(s)

Description:

Attachments:

ISSUED:

RECEIVED:

By: _____
Engineer (Authorized Signature)

By: _____
Contractor (Authorized Signature)

Title: _____
Title

:

Date: _____
Date

:

Copy to: Owner

FIELD ORDER
00 63 36-1

07.25
853.027.001

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SECTION 00 63 63

CHANGE ORDER

Change Order No. _____

Date of
Issuance:

Effective Date:

Owner:

Owner's Contract No.:

Contractor:

Contractor's Project

No.:

Engineer:

Engineer's Project No.:

Project:

Contract Name:

The Contract is modified as follows upon execution of this Change Order:

Description:

Attachments:

CHANGE IN CONTRACT PRICE	CHANGE IN CONTRACT TIMES <i>[note changes in Milestones if applicable]</i>
Original Contract Price: \$ _____	Original Contract Times: Substantial Completion: _____ Ready for Final Payment: _____ days or dates
[Increase] [Decrease] from previously approved Change Orders No. ____ to No. ____: \$ _____	[Increase] [Decrease] from previously approved Change Orders No. ____ to No. ____: Substantial Completion: _____ Ready for Final Payment: _____ days
Contract Price prior to this Change Order: \$ _____	Contract Times prior to this Change Order: Substantial Completion: _____ Ready for Final Payment: _____ days or dates
[Increase] [Decrease] of this Change Order: \$ _____	[Increase] [Decrease] of this Change Order: Substantial Completion: _____ Ready for Final Payment: _____ days or dates
Contract Price incorporating this Change Order: \$ _____	Contract Times with all approved Change Orders: Substantial Completion: _____ Ready for Final Payment: _____ days or dates

RECOMMENDED:	ACCEPTED:	ACCEPTED:
By: _____ Engineer (if required)	By: _____ Owner (Authorized)	By: _____ Contractor (Authorized)
Title: _____	Titl _____	Tit _____
Date: _____	Dat _____	Da _____

07.25
853.027.001CHANGE ORDER
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SECTION 00 65 16

CERTIFICATE OF SUBSTANTIAL COMPLETION

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

This [preliminary] [final] Certificate of Substantial Completion applies to:

☐ All Work ☐ The following specified portions of the Work:

Date of Substantial Completion

The Work to which this Certificate applies has been inspected by authorized representatives of Owner, Contractor, and Engineer, and found to be substantially complete. The Date of Substantial Completion of the Work or portion thereof designated above is hereby established, subject to the provisions of the Contract pertaining to Substantial Completion. The date of Substantial Completion in the final Certificate of Substantial Completion marks the commencement of the contractual correction period and applicable warranties required by the Contract.

A punch list of items to be completed or corrected is attached to this Certificate. This list may not be all-inclusive, and the failure to include any items on such list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract.

The responsibilities between Owner and Contractor for security, operation, safety, maintenance, heat, utilities, insurance, and warranties upon Owner's use or occupancy of the Work shall be as provided in the Contract, except as amended as follows:

Amendments to Owner's responsibilities: ☐ None
☐ As follows

Amendments to Contractor's responsibilities: ☐ None
☐ As follows:

The following documents are attached to and made a part of this Certificate: *[punch list; others]*

This Certificate does not constitute an acceptance of Work not in accordance with the Contract Documents, nor is it a release of Contractor's obligation to complete the Work in accordance with the Contract.

EXECUTED BY ENGINEER:		RECEIVED:	RECEIVED:
By: _____ (Authorized signature)	By: _____ Owner (Authorized Signature)	By: _____ Contractor (Authorized Signature)	
Title: _____	Title: _____	Title: _____	
Date: _____	Date: _____	Date: _____	

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SECTION 00 72 16
GENERAL CONDITIONS

This document has important legal consequences; consultation with an attorney is encouraged with respect to its use or modification. This document should be adapted to the particular circumstances of the contemplated Project and the controlling Laws and Regulations.

STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

Prepared by



Issued and Published Jointly by



These General Conditions have been prepared for use with the Agreement Between Owner and Contractor for Construction Contract (EJCDC® C-520, Stipulated Sum, or C-525, Cost-Plus, 2013 Editions). Their provisions are interrelated and a change in one may necessitate a change in the other.

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STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

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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 form acceptable to Engineer which is to be used by Contractor during the course of the Work in requesting 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, or both; 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, or both; 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; or (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. 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), hazardous waste, and any substance, product, waste, or other material of any nature whatsoever that is or becomes listed, regulated, or addressed pursuant to (a) the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. §§9601 et seq. (“CERCLA”); (b) the Hazardous Materials Transportation Act, 49 U.S.C. §§5101 et seq.; (c) the Resource Conservation and Recovery Act, 42 U.S.C. §§6901 et seq. (“RCRA”); (d) the Toxic Substances Control Act, 15 U.S.C. §§2601 et seq.; (e) the Clean Water Act, 33 U.S.C. §§1251 et seq.; (f) the Clean Air Act, 42 U.S.C. §§7401 et seq.; or (g) any other federal, state, or local statute, law, rule, regulation, ordinance, resolution, code, order, or decree 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 the 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. *Engineer*—The individual or entity named as such in the Agreement.
21. *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.
22. *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. The presence at the Site of materials that are necessary for the execution of the Work, or that are to be incorporated in the Work, and that are controlled and contained pursuant to industry practices, Laws and Regulations, and the requirements of the Contract, does not establish a Hazardous Environmental Condition.
23. *Laws and Regulations; Laws or Regulations*—Any and all applicable laws, statutes, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.

24. *Liens*—Charges, security interests, or encumbrances upon Contract-related funds, real property, or personal property.
25. *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.
26. *Notice of Award*—The written notice by Owner to a Bidder of Owner's acceptance of the Bid.
27. *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.
28. *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.
29. *Progress Schedule*—A schedule, prepared and maintained by Contractor, describing the sequence and duration of the activities comprising the Contractor's plan to accomplish the Work within the Contract Times.
30. *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.
31. *Project Manual*—The written documents prepared for, or made available for, procuring and constructing the Work, including but not limited to the Bidding Documents or other construction procurement documents, geotechnical and existing conditions information, the Agreement, bond forms, General Conditions, Supplementary Conditions, and Specifications. The contents of the Project Manual may be bound in one or more volumes.
32. *Resident Project Representative*—The authorized representative of Engineer assigned to assist Engineer at the Site. As used herein, the term Resident Project Representative or "RPR" includes any assistants or field staff of Resident Project Representative.
33. *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.
34. *Schedule of Submittals*—A schedule, prepared and maintained by Contractor, of required submittals and the time requirements for Engineer's review of the submittals and the performance of related construction activities.
35. *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.
36. *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.

37. *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 furnished by Owner which are designated for the use of Contractor.
38. *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.
39. *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.
40. *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 thereof.
41. *Successful Bidder*—The Bidder whose Bid the Owner accepts, and to which the Owner makes an award of contract, subject to stated conditions.
42. *Supplementary Conditions*—The part of the Contract that amends or supplements these General Conditions.
43. *Supplier*—A manufacturer, fabricator, supplier, distributor, materialman, 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.
44. *Technical Data*—Those items expressly identified as Technical Data in the Supplementary Conditions, with respect to either (a) subsurface conditions at the Site, or physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities) or (b) Hazardous Environmental Conditions at the Site. If no such express identifications of Technical Data have been made with respect to conditions at the Site, then the data contained in boring logs, recorded measurements of subsurface water levels, laboratory test results, and other factual, objective information regarding conditions at the Site that are set forth in any geotechnical or environmental report prepared for the Project and made available to Contractor are hereby defined as Technical Data with respect to conditions at the Site under Paragraphs 5.03, 5.04, and 5.06.
45. *Underground Facilities*—All underground pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or attachments, and any encasements containing such facilities, including but not limited to those that convey electricity, gases, steam, liquid petroleum products, telephone or other communications, fiber optic transmissions, cable television, water, wastewater, storm water, other liquids or chemicals, or traffic or other control systems.
46. *Unit Price Work*—Work to be paid for on the basis of unit prices.
47. *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.

48. *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 the following paragraphs are not defined but, when used in the Bidding Requirements or Contract Documents, have the indicated meaning.
- B. *Intent of Certain Terms or Adjectives:*
1. 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:*
1. The word “day” means a calendar day of 24 hours measured from midnight to the next midnight.
- D. *Defective:*
1. The word “defective,” when modifying the word “Work,” refers to Work that is unsatisfactory, faulty, or deficient in that it:
 - a. does not conform to the Contract Documents; or
 - b. does not meet the requirements of any applicable inspection, reference standard, test, or approval referred to in the Contract Documents; or
 - c. 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 15.04).
- E. *Furnish, Install, Perform, Provide:*
1. The word “furnish,” when used in connection with services, materials, or equipment, shall mean 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, shall mean 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, shall mean 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. 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 Bonds and Evidence of Insurance*

- A. *Bonds*: When Contractor delivers the executed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner such bonds as Contractor may be required to furnish.
- B. *Evidence of Contractor’s Insurance*: When Contractor delivers the executed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner, with copies to each named insured and additional insured (as identified in the Supplementary Conditions or elsewhere in the Contract), the certificates and other evidence of insurance required to be provided by Contractor in accordance with Article 6.
- C. *Evidence of Owner’s Insurance*: After receipt of the executed counterparts of the Agreement and all required bonds and insurance documentation, Owner shall promptly deliver to Contractor, with copies to each named insured and additional insured (as identified in the Supplementary Conditions or otherwise), 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 executed 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 specifically 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 *Initial 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 for acceptability to Engineer as provided below the schedules submitted in accordance with Paragraph 2.03.A. Contractor shall have an additional 10 days to make corrections and adjustments and to complete and resubmit the schedules. No progress payment shall 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.

2.06 *Electronic Transmittals*

- A. Except as otherwise stated elsewhere in the Contract, the Owner, Engineer, and Contractor may transmit, and shall accept, Project-related correspondence, text, data, documents, drawings, information, and graphics, including but not limited to Shop Drawings and other submittals, in electronic media or digital format, either directly, or through access to a secure Project website.
- B. If the Contract does not establish protocols for electronic or digital transmittals, then Owner, Engineer, and Contractor shall jointly develop such protocols.
- C. When transmitting items in electronic media or digital format, the transmitting party makes no representations as to long term compatibility, usability, or readability of the items 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 items, or from those established in applicable transmittal protocols.

ARTICLE 3 – DOCUMENTS: INTENT, REQUIREMENTS, REUSE

3.01 *Intent*

- A. The Contract Documents are complementary; what is required by one 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 or digital versions of the Contract Documents (including any printed copies derived from such electronic or digital versions) and the printed record version, the printed record version shall 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.

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, shall mean 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, or any instruction of a Supplier, shall be effective to change the duties or responsibilities of Owner, Contractor, or Engineer, or any of their subcontractors, consultants, agents, or employees, 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, Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, 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 Documents 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 Documents 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 shall 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 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 thereunder.
- 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 give written notice to Owner and Contractor 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 editions, 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 shall preclude 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 thirtieth 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 sixtieth day after the day of Bid opening or the thirtieth 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 shall 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 shall 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 shall 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 the Contract Times and Contract Price. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the 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. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times. Such an adjustment shall 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 utility owners (other than those performing other work at or adjacent to the Site by arrangement with the Owner, as contemplated in Article 8); and
 4. acts of war or terrorism.
- D. 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.
- E. Paragraph 8.03 governs 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.
- F. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times 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.

- G. Contractor must submit any Change Proposal seeking an adjustment in Contract Price or Contract Times under this paragraph within 30 days of the commencement of the delaying, disrupting, or interfering event.

ARTICLE 5 – AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS

5.01 *Availability of Lands*

- A. Owner shall furnish the Site. Owner shall notify Contractor 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; 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 7.12, 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 at law; 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 shall 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 known to Owner of explorations and tests of subsurface conditions at or adjacent to the Site;
 - 2. those drawings known to Owner of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities); 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 upon the accuracy of the Technical Data (as defined in Article 1) contained in any geotechnical or environmental report prepared for the Project and made available to Contractor. 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; or
 - 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.

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 either:
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; or
 2. is of such a nature as to require a change in the Drawings or Specifications; or
 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 the necessity of Owner's obtaining 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 above; 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. *Possible Price and Times Adjustments:*
1. Contractor shall be entitled to an equitable adjustment in Contract Price or Contract Times, or both, 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 conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.
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; or
 - 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 as 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, or both, then any such adjustment shall 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, or both, 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.

5.05 *Underground Facilities*

- A. *Contractor's Responsibilities:* The information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or adjacent to the Site is based on information and data furnished to Owner or Engineer by the owners of such Underground Facilities, including Owner, or by others. Unless it is otherwise expressly provided in the Supplementary Conditions:
 1. Owner and Engineer do not warrant or guarantee the accuracy or completeness of any such information or data provided by others; and
 2. the cost of all of the following will be included in the Contract Price, and Contractor shall have full responsibility for:
 - a. reviewing and checking all information and data regarding existing Underground Facilities at the Site;
 - b. locating all Underground Facilities shown or indicated in the Contract Documents as being at the Site;
 - c. coordination of the Work with the owners (including Owner) of such Underground Facilities, during construction; and
 - d. 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 in the Contract Documents, or was not shown or indicated 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), identify the owner of such Underground Facility and give written notice to that owner and to Owner and Engineer.

- C. *Engineer's Review:* Engineer will promptly review the Underground Facility and conclude whether such Underground Facility was not shown or indicated in the Contract Documents, or was not shown or indicated with reasonable accuracy; obtain any pertinent cost or schedule information from Contractor; prepare recommendations to Owner regarding the Contractor's resumption of Work in connection with the Underground Facility in question; 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 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. *Possible Price and Times Adjustments:*
 - 1. Contractor shall be entitled to an equitable adjustment in the Contract Price or Contract Times, or both, to the extent that any existing Underground Facility at the Site that was not shown or indicated in the Contract Documents, 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. Contractor did not know of and could not reasonably have been expected to be aware of or to have anticipated the existence or actual location of the Underground Facility in question;
 - 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;
 - c. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times; and
 - d. 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, or both, then any such adjustment shall 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, or both, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the Underground Facility in question.

5.06 *Hazardous Environmental Conditions at Site*

- A. *Reports and Drawings:* The Supplementary Conditions identify:
1. those reports and drawings known to Owner relating to Hazardous Environmental Conditions that have been identified at or adjacent to the Site; and
 2. 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 Article 1) contained in any geotechnical or environmental report prepared for the Project and made available to Contractor. 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; or
 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, or both, as a result of such Work stoppage or such special conditions under which Work is agreed to be resumed by Contractor, 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.
- 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 or 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 shall obligate 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 shall obligate 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 all of Contractor's obligations under the Contract. These bonds shall 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 Supplementary Conditions, or other specific provisions of the Contract. Contractor shall also furnish such other bonds as are required by the Supplementary Conditions or other specific provisions of the Contract.
- B. All bonds shall be in the form prescribed by the Contract except as provided otherwise by Laws or Regulations, and shall be executed by such sureties as are named in "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (as amended and supplemented) by the Financial Management Service, Surety Bond Branch, 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 shall show that it is effective on the date the agent or attorney-in-fact signed the accompanying bond.
- C. Contractor shall obtain the required bonds from surety companies that are duly licensed or authorized in the jurisdiction in which the Project is located to issue bonds in the required amounts.
- D. If the surety on a bond furnished by Contractor is declared bankrupt or becomes insolvent, or its right to do business is terminated in any state or jurisdiction where any part of the Project is located, or the surety ceases to meet the requirements above, then Contractor shall promptly notify Owner and Engineer and shall, within 20 days after the event giving rise to such notification, provide another bond and surety, both of which shall comply with the bond and surety requirements above.
- E. 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.
- F. Upon request, Owner shall provide a copy of the payment bond to any Subcontractor, Supplier, or other person or entity claiming to have furnished labor or materials used in the performance of the Work.

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. Contractor shall deliver to Owner, with copies to each named insured and additional insured (as identified in this Article, in the Supplementary Conditions, or elsewhere in the Contract), certificates of insurance establishing that Contractor has obtained and is

maintaining the policies, coverages, and endorsements 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 and endorsements, and documentation of applicable self-insured retentions and deductibles. Contractor may block out (redact) any confidential premium or pricing information contained in any policy or endorsement furnished under this provision.

- D. Owner shall deliver to Contractor, with copies to each named insured and additional insured (as identified in this Article, the Supplementary Conditions, or elsewhere in the Contract), certificates of insurance establishing that Owner has obtained and is maintaining the policies, coverages, and endorsements 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 and endorsements, and documentation of applicable self-insured retentions and deductibles. Owner may block out (redact) any confidential premium or pricing information contained in any policy or endorsement furnished under this provision.
- E. 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, shall not be construed as a waiver of the other party's obligation to obtain and maintain such insurance.
- F. If either party does not purchase or maintain all of 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.
- G. If Contractor has failed to obtain and maintain required insurance, Owner may exclude the Contractor from the Site, impose an appropriate set-off against payment, and exercise Owner's termination rights under Article 16.
- H. Without prejudice to any other right or remedy, if a party has failed to obtain required insurance, the other party may elect 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 shall be adjusted accordingly.
- I. Owner does not represent that insurance coverage and limits established in this Contract necessarily will be adequate to protect Contractor or Contractor's interests.
- J. The insurance and insurance limits required herein shall not be deemed as a limitation on Contractor's liability under the indemnities granted to Owner and other individuals and entities in the Contract.

6.03 *Contractor's Insurance*

- A. *Workers' Compensation:* Contractor shall purchase and maintain workers' compensation and employer's liability insurance for:
 - 1. claims under workers' compensation, disability benefits, and other similar employee benefit acts.
 - 2. United States Longshoreman and Harbor Workers' Compensation Act and Jones Act coverage (if applicable).
 - 3. claims for damages because of bodily injury, occupational sickness or disease, or death of Contractor's employees (by stop-gap endorsement in monopolist worker's compensation states).

4. Foreign voluntary worker compensation (if applicable).
- B. *Commercial General Liability—Claims Covered:* Contractor shall purchase and maintain commercial general liability insurance, covering all operations by or on behalf of Contractor, on an occurrence basis, against:
1. claims for damages because of bodily injury, sickness or disease, or death of any person other than Contractor's employees.
 2. claims for damages insured by reasonably available personal injury liability coverage.
 3. claims for damages, other than to the Work itself, because of injury to or destruction of tangible property wherever located, including loss of use resulting therefrom.
- C. *Commercial General Liability—Form and Content:* Contractor's commercial liability policy shall be written on a 1996 (or later) ISO commercial general liability form (occurrence form) and include the following coverages and endorsements:
1. Products and completed operations coverage:
 - a. Such insurance shall be maintained for three years after final payment.
 - b. Contractor shall furnish Owner and each other additional insured (as identified in the Supplementary Conditions or elsewhere in the Contract) evidence of continuation of such insurance at final payment and three years thereafter.
 2. Blanket contractual liability coverage, to the extent permitted by law, including but not limited to coverage of Contractor's contractual indemnity obligations in Paragraph 7.18.
 3. Broad form property damage coverage.
 4. Severability of interest.
 5. Underground, explosion, and collapse coverage.
 6. Personal injury coverage.
 7. Additional insured endorsements that include both ongoing operations and products and completed operations coverage through ISO Endorsements CG 20 10 10 01 and CG 20 37 10 01 (together); or CG 20 10 07 04 and CG 20 37 07 04 (together); or their equivalent.
 8. For design professional additional insureds, ISO Endorsement CG 20 32 07 04, "Additional Insured—Engineers, Architects or Surveyors Not Engaged by the Named Insured" or its equivalent.
- D. *Automobile liability:* Contractor shall purchase and maintain automobile liability insurance against claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance, or use of any motor vehicle. The automobile liability policy shall be written on an occurrence basis.
- E. *Umbrella or excess liability:* Contractor shall purchase and maintain umbrella or excess liability insurance written over the underlying employer's liability, commercial general liability, and automobile liability insurance described in the paragraphs above. Subject to industry-standard exclusions, the coverage afforded shall follow form as to each and every one of the underlying policies.
- F. *Contractor's pollution liability insurance:* Contractor shall purchase and maintain a policy covering third-party injury and property damage claims, including clean-up costs, as a result

of pollution conditions arising from Contractor's operations and completed operations. This insurance shall be maintained for no less than three years after final completion.

- G. *Additional insureds*: The Contractor's commercial general liability, automobile liability, umbrella or excess, and pollution liability policies shall include and list as additional insureds Owner and Engineer, and any individuals or entities identified in the Supplementary Conditions; include coverage for the respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of all such additional insureds; and the insurance afforded to these additional insureds shall provide primary coverage for all claims covered thereby (including as applicable those arising from both ongoing and completed operations) on a non-contributory basis. Contractor shall obtain all necessary endorsements to support these requirements.
- H. *Contractor's professional liability insurance*: If Contractor will provide or furnish professional services under this Contract, through a delegation of professional design services or otherwise, then Contractor shall be responsible for purchasing and maintaining applicable professional liability insurance. This insurance shall provide protection against claims arising out of performance of professional design or related services, and caused by a negligent error, omission, or act for which the insured party is legally liable. It shall be maintained throughout the duration of the Contract and for a minimum of two years after Substantial Completion. If such professional design services are performed by a Subcontractor, and not by Contractor itself, then the requirements of this paragraph may be satisfied through the purchasing and maintenance of such insurance by such Subcontractor.
- I. *General provisions*: The policies of insurance required by this Paragraph 6.03 shall:
 - 1. include at least the specific coverages provided in this Article.
 - 2. be written for not less than the limits of liability provided in this Article and in the Supplementary Conditions, or required by Laws or Regulations, whichever is greater.
 - 3. contain a provision or endorsement that the coverage afforded will not be canceled, materially changed, or renewal refused until at least 10 days prior written notice has been given to Contractor. Within three days of receipt of any such written notice, Contractor shall provide a copy of the notice to Owner, Engineer, and each other insured under the policy.
 - 4. remain in effect at least until final payment (and longer if expressly required in this Article) 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 Documents.
 - 5. be appropriate for the Work being performed and provide protection from claims that may arise out of or result from Contractor's performance of the Work and Contractor's other obligations under the Contract Documents, whether it is to be performed 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.
- J. The coverage requirements for specific policies of insurance must be met by such policies, and not by reference to excess or umbrella insurance provided in other policies.

6.04 *Owner's Liability Insurance*

- A. In addition to the insurance required to be provided by Contractor under Paragraph 6.03, Owner, at Owner's option, may purchase and maintain at Owner's expense Owner's own liability insurance as will protect Owner against claims which may arise from operations under the Contract Documents.
- B. 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.

6.05 *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 full insurable replacement cost thereof (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by Laws and Regulations). This insurance shall:
 - 1. include the Owner and Contractor as named insureds, and all Subcontractors, and any individuals or entities required by the Supplementary Conditions to be insured under such builder's risk policy, as insureds or named insureds. For purposes of the remainder of this Paragraph 6.05, Paragraphs 6.06 and 6.07, and any corresponding Supplementary Conditions, the parties required to be insured shall collectively be referred to as "insureds."
 - 2. be written on a builder's risk "all risk" policy form that shall at least include insurance for physical loss or damage to the Work, temporary buildings, falsework, and materials and equipment in transit, and shall insure against at least the following perils or causes of loss: fire; lightning; windstorm; riot; civil commotion; terrorism; vehicle impact; aircraft; smoke; theft; vandalism and malicious mischief; mechanical breakdown, boiler explosion, and artificially generated electric current; earthquake; volcanic activity, and other earth movement; flood; collapse; explosion; debris removal; demolition occasioned by enforcement of Laws and Regulations; water damage (other than that caused by flood); and such other perils or causes of loss as may be specifically required by the Supplementary Conditions. If insurance against mechanical breakdown, boiler explosion, and artificially generated electric current; earthquake; volcanic activity, and other earth movement; or flood, are not commercially available under builder's risk policies, by endorsement or otherwise, such insurance may be provided through other insurance policies acceptable to Owner and Contractor.
 - 3. cover, as insured property, at least the following: (a) the Work and all materials, supplies, machinery, apparatus, equipment, fixtures, and other property of a similar nature that are to be incorporated into or used in the preparation, fabrication, construction, erection, or completion of the Work, including Owner-furnished or assigned property; (b) spare parts inventory required within the scope of the Contract; and (c) temporary works which are not intended to form part of the permanent constructed Work but which are intended to provide working access to the Site, or to the Work under construction, or which are intended to provide temporary support for the Work under construction, including scaffolding, form work, fences, shoring, falsework, and temporary structures.
 - 4. cover expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers and architects).

5. extend to cover damage or loss to insured property while in temporary storage at the Site or in a storage location outside the Site (but not including property stored at the premises of a manufacturer or Supplier).
 6. extend to cover damage or loss to insured property while in transit.
 7. allow for partial occupation or use of the Work by Owner, such that those portions of the Work that are not yet occupied or used by Owner shall remain covered by the builder's risk insurance.
 8. allow for the waiver of the insurer's subrogation rights, as set forth below.
 9. provide primary coverage for all losses and damages caused by the perils or causes of loss covered.
 10. not include a co-insurance clause.
 11. include an exception for ensuing losses from physical damage or loss with respect to any defective workmanship, design, or materials exclusions.
 12. include performance/hot testing and start-up.
 13. be maintained in effect, subject to the provisions herein regarding Substantial Completion and partial occupancy or use of the Work by Owner, until the Work is complete.
- B. *Notice of Cancellation or Change:* All the policies of insurance (and the certificates or other evidence thereof) required to be purchased and maintained in accordance with this Paragraph 6.05 will contain a provision or endorsement that the coverage afforded will not be canceled or materially changed 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.
- C. *Deductibles:* The purchaser of any required builder's risk or property insurance shall pay for costs not covered because of the application of a policy deductible.
- 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 notice of such occupancy or use to the builder's risk insurer. The builder's risk insurance shall not be canceled or permitted to lapse on account of any such partial use or occupancy; rather, those portions of the Work that are occupied or used by Owner may come off the builder's risk policy, while those portions of the Work not yet occupied or used by Owner shall remain covered by the builder's risk insurance.
- E. *Additional Insurance:* 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 6.05, it may do so at Contractor's expense.
- F. *Insurance of Other Property:* If the express insurance provisions of the Contract do not require or address the insurance of a property item or interest, such as tools, construction equipment, or other personal property owned by Contractor, a Subcontractor, or an employee of Contractor or a Subcontractor, then the entity or individual owning such property item will be responsible for deciding whether to insure it, and if so in what amount.

6.06 *Waiver of Rights*

- A. All policies purchased in accordance with Paragraph 6.05, expressly including the builder's risk policy, shall contain provisions to the effect that in the event of payment of any loss or damage the insurers 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. 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 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 Subcontractors, all individuals or entities identified in the Supplementary Conditions as 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. None of the above waivers shall extend 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. 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:
 - 1. loss 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 perils whether or not insured by Owner; and
 - 2. loss or damage to the completed Project or part thereof caused by, arising out of, or resulting from fire or other insured peril or cause of loss covered by any property insurance maintained on the completed Project or part thereof by Owner 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.
- C. Any insurance policy maintained by Owner covering any loss, damage or consequential loss referred to in Paragraph 6.06.B shall contain provisions to the effect that in the event of payment of any such loss, damage, or consequential loss, the insurers will have no rights of recovery against Contractor, Subcontractors, or Engineer, or the officers, directors, members, partners, employees, agents, consultants, or subcontractors of each and any of them.
- D. Contractor shall be responsible for assuring that the agreement under which a Subcontractor performs a portion of the Work 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 any of the perils or causes of loss covered by builder's risk insurance and any other property insurance applicable to the Work.

6.07 *Receipt and Application of Property Insurance Proceeds*

- A. Any insured loss under the builder's risk and other policies of insurance required by Paragraph 6.05 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 6.05 shall 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, the damaged Work shall be repaired or replaced, the money so received applied on account thereof, and the Work and the cost thereof covered by Change Order, if needed.

ARTICLE 7 – CONTRACTOR'S RESPONSIBILITIES

7.01 *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. Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction.
- B. At all times during the progress of the Work, Contractor shall assign a competent resident superintendent who shall not be replaced without written notice to Owner and Engineer except under extraordinary circumstances.

7.02 *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 at all times maintain good discipline and order at the Site.
- B. 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 shall 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.

7.03 *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 shall be of good quality and new, except as otherwise provided in the Contract Documents. All special warranties and

guarantees required by the Specifications shall 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 shall 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.

7.04 "Or Equals"

- A. Whenever an item of material or equipment is specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular Supplier, 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 material or equipment, or items from other proposed suppliers under the circumstances described below.
 - 1. If Engineer in its sole discretion determines that an item of material or equipment proposed by Contractor is functionally equal to that named and sufficiently similar so that no change in related Work will be required, Engineer shall deem it an "or equal" item. For the purposes of this paragraph, a proposed item of material or equipment will be considered functionally equal to an item so named if:
 - a. in the exercise of reasonable judgment Engineer determines that:
 - 1) it is at least equal in materials of construction, quality, durability, appearance, strength, and design characteristics;
 - 2) it 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) it has a proven record of performance and availability of responsive service; and
 - 4) it is not objectionable to Owner.
 - b. Contractor certifies that, if approved and incorporated into the Work:
 - 1) there will be no increase in cost to the Owner or increase in Contract Times; and
 - 2) it 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 shall result in any change in Contract Price. The Engineer's denial of an "or-equal" request shall be final and binding, and may not be reversed through an appeal under any provision of the Contract Documents.
- E. *Treatment as a Substitution Request:* If Engineer determines that an item of material or equipment proposed by Contractor does not qualify as an "or-equal" item, Contractor may request that Engineer consider the proposed item as a substitute pursuant to Paragraph 7.05.

7.05 Substitutes

- A. Unless the specification or description of an item of material or equipment 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 material or equipment under the circumstances described below. To the extent possible such requests shall 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 material or equipment from anyone other than Contractor.
 - 2. The requirements for review by Engineer will be as set forth in Paragraph 7.05.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 material or equipment that Contractor seeks to furnish or use. The application:
 - a. shall 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 that specified, and
 - 3) be suited to the same use as that 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 that specified, and

- 2) available engineering, sales, maintenance, repair, and replacement services.
- d. shall 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 shall be final and binding, and may not be reversed through an appeal under any provision of the Contract Documents. Contractor may challenge the scope of reimbursement costs imposed under Paragraph 7.05.D, by timely submittal of a Change Proposal.

7.06 *Concerning Subcontractors, Suppliers, and Others*

- A. Contractor may retain Subcontractors and Suppliers for the performance of parts of the Work. Such Subcontractors and Suppliers must be acceptable to Owner.
- B. Contractor shall retain specific Subcontractors, Suppliers, or other individuals or entities 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, Supplier, or other individual or entity 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 five days.

- E. Owner may require the replacement of any Subcontractor, Supplier, or other individual or entity retained by Contractor to perform any part of the Work. 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, Suppliers, or other individuals or entities 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, Supplier, or other individual or entity so identified solely on the basis of substantive, reasonable objection after due investigation. Contractor shall submit an acceptable replacement for the rejected Subcontractor, Supplier, or other individual or entity.
- F. If Owner requires the replacement of any Subcontractor, Supplier, or other individual or entity retained by Contractor to perform any part of the Work, then Contractor shall be entitled to an adjustment in Contract Price or Contract Times, or both, 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, Supplier, or other individual or entity, whether initially or as a replacement, shall 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 fully responsible to Owner and Engineer for all acts and omissions of the Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work just as Contractor is responsible for Contractor's own acts and omissions.
- J. Contractor shall be solely responsible for scheduling and coordinating the work of Subcontractors, Suppliers, and all other individuals or entities performing or furnishing any of the Work.
- K. Contractor shall restrict all Subcontractors, Suppliers, and such other individuals or entities performing or furnishing any of the Work from communicating with Engineer or Owner, except through Contractor or in case of an emergency, or as otherwise expressly allowed herein.
- L. The divisions and sections of the Specifications and the identifications of any Drawings shall not control Contractor in dividing the Work among Subcontractors or Suppliers or delineating the Work to be performed by any specific trade.
- M. All Work performed for Contractor by a Subcontractor or Supplier shall be pursuant to an appropriate contractual agreement that specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract Documents for the benefit of Owner and Engineer.
- N. Owner may furnish to any Subcontractor or Supplier, to the extent practicable, information about amounts paid to Contractor on account of Work performed for Contractor by the particular Subcontractor or Supplier.

O. Nothing in the Contract Documents:

1. shall create for the benefit of any such Subcontractor, Supplier, or other individual or entity any contractual relationship between Owner or Engineer and any such Subcontractor, Supplier, or other individual or entity; nor
2. shall create 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.

7.07 *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 a particular 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 shall be disclosed by Owner 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.

7.08 *Permits*

- A. Unless otherwise provided in the Contract Documents, Contractor shall obtain and pay for all construction permits and licenses. 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

7.09 *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.

7.10 *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. Except where otherwise expressly required by applicable Laws and Regulations, 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 shall not be Contractor's responsibility to make certain that the Work described in the Contract Documents is in accordance with Laws and Regulations, but this shall not relieve Contractor of Contractor's obligations under Paragraph 3.03.
- C. Owner or Contractor may give 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 notice Contractor may submit a Change Proposal, or Owner may initiate a Claim.

7.11 *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.

7.12 *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. 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.
- B. 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. Contractor shall notify Owner; the owners of adjacent property, Underground Facilities, and other utilities; and other contractors and utility owners performing work at or adjacent to the Site, when 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.
 - C. Contractor shall comply with the applicable requirements of Owner's safety programs, if any. The Supplementary Conditions identify any Owner's safety programs that are applicable to the Work.
 - D. 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.
 - E. All damage, injury, or loss to any property referred to in Paragraph 7.12.A.2 or 7.12.A.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).
 - F. Contractor's duties and responsibilities for safety and protection shall continue until such time as all the Work is completed and Engineer has issued a notice to Owner and Contractor in accordance with Paragraph 15.06.B that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion).
 - G. Contractor's duties and responsibilities for safety and protection shall 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.

7.13 *Safety Representative*

- A. Contractor shall designate a qualified and experienced safety representative at the Site whose duties and responsibilities shall be the prevention of accidents and the maintaining and supervising of safety precautions and programs.

7.14 *Hazard Communication Programs*

- A. Contractor shall be responsible for coordinating any exchange of 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 threatened 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 thereby or are required as a result thereof. If Engineer determines that a change in the Contract Documents is required because of the action taken by Contractor in response to such an emergency, a Work Change Directive or Change Order will be issued.

7.16 *Shop Drawings, Samples, and Other Submittals*

A. *Shop Drawing and Sample Submittal Requirements:*

- 1. Before submitting a Shop Drawing or Sample, Contractor shall have:
 - a. reviewed and coordinated the Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents;
 - b. determined and verified all field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information with respect thereto;
 - c. determined and verified 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
 - d. determined and verified all information relative to Contractor's responsibilities for means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto.
- 2. Each submittal shall 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 submittal, Contractor shall give Engineer specific written notice of any variations that the Shop Drawing or Sample may have from the requirements of the Contract Documents. This notice shall be set forth in a written communication separate from the Shop Drawings or Sample submittal; and, in addition, in the case of Shop Drawings by a specific notation made on each Shop Drawing submitted to Engineer for review and approval of each such variation.

- B. *Submittal Procedures for Shop Drawings and Samples:* Contractor shall submit Shop Drawings and Samples to Engineer for review and approval in accordance with the accepted Schedule of Submittals. Each submittal will be identified as Engineer may require.

1. *Shop Drawings:*

- a. Contractor shall submit the number of copies required in the Specifications.
- b. Data shown on the Shop Drawings will 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.D.

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.D.

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. *Other Submittals:* Contractor shall submit other submittals to Engineer in accordance with the accepted Schedule of Submittals, and pursuant to the applicable terms of the Specifications.

D. *Engineer's Review:*

1. Engineer will provide timely review of Shop Drawings and Samples in accordance with the Schedule of Submittals acceptable to Engineer. 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, conform to the information given in 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 shall 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.
5. Engineer's review and approval of a Shop Drawing or Sample shall not relieve Contractor from responsibility for complying with the requirements of Paragraph 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, shall 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, Sample, or other submittal shall 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.D.4.

E. *Resubmittal Procedures:*

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 submittals with sufficient information and accuracy to obtain required approval of an item with no more than three submittals. Engineer will record Engineer's time for reviewing a fourth or subsequent submittal of a Shop Drawings, sample, or other item requiring approval, and Contractor shall be responsible for Engineer's charges to Owner for such time. Owner may impose a set-off against payments due to Contractor to secure reimbursement for such charges.
3. If Contractor requests a change of a previously approved submittal item, Contractor shall be responsible for Engineer's charges to Owner for its review time, and Owner may impose a set-off against payments due to Contractor to secure reimbursement for such charges, unless the need for such change is beyond the control of Contractor.

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 and its officers, directors, members, partners, employees, agents, consultants, and subcontractors shall be entitled to rely on Contractor's warranty and guarantee.
- B. Contractor's warranty and guarantee hereunder excludes defects or damage caused by:
 1. abuse, modification, or improper 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.
- C. Contractor's obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents or a release of Contractor's obligation to perform the Work in accordance with the Contract Documents:
 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. any inspection, test, or approval by others; or
 8. any correction of defective Work by Owner.

- D. 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 shall 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 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 performance of the Work, provided that any such claim, cost, loss, or damage is attributable to bodily injury, sickness, disease, or death, or to injury 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 shall 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.
- C. The indemnification obligations of Contractor under Paragraph 7.18.A shall not extend to the liability of Engineer and Engineer's officers, directors, members, partners, employees, agents, consultants and subcontractors arising out of:
 - 1. the preparation or approval of, or the failure to prepare or approve maps, Drawings, opinions, reports, surveys, Change Orders, designs, or Specifications; or
 - 2. giving directions or instructions, or failing to give them, if that is the primary cause of the injury or damage.

7.19 *Delegation of Professional Design Services*

- A. Contractor will not be required to provide professional design services unless such services are specifically required by the Contract Documents for a portion of the Work or unless such services are required to carry out Contractor's responsibilities for construction means, methods, techniques, sequences and procedures. Contractor shall not be required to provide professional services in violation of applicable Laws and Regulations.
- B. If professional design services or certifications by a design professional related to systems, materials, or equipment are specifically required of Contractor by the Contract Documents, Owner and Engineer will specify all performance and design criteria that such services must satisfy. Contractor shall cause such services or certifications to be provided by a properly licensed professional, whose signature and seal shall appear on all drawings, calculations, specifications, certifications, and other submittals prepared by such professional. Shop

Drawings and other submittals related to the Work designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted to Engineer.

- C. Owner and Engineer shall be entitled to rely upon the adequacy, accuracy, and completeness of the services, certifications, or approvals performed by such design professionals, provided Owner and Engineer have specified to Contractor all performance and design criteria that such services must satisfy.
- D. Pursuant to this paragraph, Engineer's review and approval of design calculations and design drawings will be only for the limited purpose of checking for conformance with performance and design criteria given and the design concept expressed in the Contract Documents. Engineer's review and approval of Shop Drawings and other submittals (except design calculations and design drawings) will be only for the purpose stated in Paragraph 7.16.D.1.
- E. Contractor shall not be responsible for the adequacy of the performance or design criteria specified by Owner or Engineer.

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 utility work at or adjacent to the Site, Owner shall provide such information to Contractor.
- C. Contractor shall afford each other contractor that performs such other work, each utility owner performing other work, and Owner, if Owner is performing other work with Owner's employees, proper and safe access to the Site, and provide a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work. 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.
- D. If the proper execution or results of any part of Contractor's Work depends upon work performed by others under this Article 8, 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.

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 at or adjacent to the Site for Owner, the Owner's employees, any other contractor working for Owner, or any utility owner for whom the Owner is responsible 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, or both. 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 shall 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. When applicable, any such equitable adjustment in Contract Price shall 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 is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.
- 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. 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 to 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.
- C. 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 to Contractor.

- D. 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 shall 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 Documents (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 10.08. 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 *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 Paragraph 10.08. If Owner designates another representative or agent to represent Owner at the Site who is not Engineer's consultant, agent, or employee, the responsibilities and authority and limitations thereon of such other individual or entity will be as provided in the Supplementary Conditions.

10.04 *Rejecting Defective Work*

- A. Engineer has the authority to reject Work in accordance with Article 14.

10.05 *Shop Drawings, Change Orders and Payments*

- A. Engineer's authority, and limitations thereof, as to Shop Drawings and Samples, are set forth in Paragraph 7.16.
- B. Engineer's authority, and limitations thereof, as to design calculations and design drawings submitted in response to a delegation of professional design services, if any, are set forth in Paragraph 7.19.
- C. Engineer's authority as to Change Orders is set forth in Article 11.
- D. Engineer's authority as to Applications for Payment is set forth in Article 15.

10.06 *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.

10.07 *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.

10.08 *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, shall 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 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 10.08 shall also apply to the Resident Project Representative, if any.

10.09 *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 (if any) of which Engineer has been informed.

ARTICLE 11 – AMENDING THE CONTRACT DOCUMENTS; CHANGES IN THE WORK

11.01 *Amending and Supplementing Contract Documents*

- A. The Contract Documents may be amended or supplemented by a Change Order, a Work Change Directive, or a Field Order.
 - 1. *Change Orders:*
 - a. If an amendment or supplement to the Contract Documents includes a change in the Contract Price or the Contract Times, such amendment or supplement must be set forth in a Change Order. A Change Order also may be used to establish amendments and supplements of the Contract Documents that do not affect the Contract Price or Contract Times.
 - b. Owner and Contractor may amend those terms and conditions of the Contract Documents that do not 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, without the recommendation of the Engineer. Such an amendment shall be set forth in a Change Order.
 - 2. *Work Change Directives:* 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 11.04 regarding change of Contract Price. Contractor must submit any Change Proposal seeking an

adjustment of the Contract Price or the Contract Times, or both, no later than 30 days after the completion of the Work set out in the Work Change Directive. Owner must submit any Claim seeking an adjustment of the Contract Price or the Contract Times, or both, no later than 60 days after issuance of the Work Change Directive.

3. *Field Orders*: 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. If Contractor believes that a Field Order justifies an adjustment in the Contract Price or Contract Times, or both, then before proceeding with the Work at issue, Contractor shall submit a Change Proposal as provided herein.

11.02 *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. Such changes shall be supported by Engineer's recommendation, to the extent the change involves the design (as set forth in the Drawings, Specifications, or otherwise), or other engineering or technical matters. Such changes 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 shall be performed under the applicable conditions of the Contract Documents. Nothing in this paragraph shall obligate 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.

11.03 *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.

11.04 *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 shall comply with the provisions of Paragraph 11.06. Any Claim for an adjustment of Contract Price shall 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); or
 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 11.04.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 11.04.C).

- C. *Contractor's Fee*: When applicable, the Contractor's fee for overhead and profit shall 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 shall be 15 percent;
 - b. for costs incurred under Paragraph 13.01.B.3, the Contractor's fee shall be five 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 11.04.C.2.a and 11.04.C.2.b is that the Contractor's fee shall be based on: (1) a fee of 15 percent of the costs incurred under Paragraphs 13.01.A.1 and 13.01.A.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 five 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 shall be no greater than 27 percent of the costs incurred by the Subcontractor that actually performs the work;
 - d. no fee shall 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 will be the amount of the actual net decrease in cost plus a deduction in Contractor's fee by an amount equal to five percent of such net decrease; and
 - f. when both additions and credits are involved in any one change, the adjustment in Contractor's fee shall be computed on the basis of the net change in accordance with Paragraphs 11.04.C.2.a through 11.04.C.2.e, inclusive.

11.05 *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 shall comply with the provisions of Paragraph 11.06. Any Claim for an adjustment in the Contract Times shall comply with the provisions of Article 12.
- B. An adjustment of the Contract Times shall be subject to the limitations set forth in Paragraph 4.05, concerning delays in Contractor's progress.

11.06 *Change Proposals*

- A. Contractor shall submit a Change Proposal to Engineer to request an adjustment in the Contract Times or Contract Price; appeal an initial decision by Engineer concerning the requirements of the Contract Documents or relating to the acceptability of the Work under the Contract Documents; contest a set-off against payment due; or seek other relief under

the Contract. The Change Proposal shall specify any proposed change in Contract Times or Contract Price, or both, or other proposed relief, and explain the reason for the proposed change, with citations to any governing or applicable provisions of the Contract Documents.

1. *Procedures:* Contractor shall submit each Change Proposal to Engineer promptly (but in no event later than 30 days) after the start of the event giving rise thereto, or after such initial decision. 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. The supporting data shall 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. Engineer will advise Owner regarding the Change Proposal, and consider any comments or response from Owner regarding the Change Proposal.
 2. *Engineer's Action:* Engineer will review each Change Proposal and, within 30 days after receipt of the Contractor's supporting data, either deny the Change Proposal in whole, approve it in whole, or deny it in part and approve it in part. Such actions shall 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.
 3. *Binding Decision:* Engineer's decision will be final and binding upon Owner and Contractor, unless Owner or Contractor appeals the decision by filing a Claim under Article 12.
- B. *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 that the Engineer is unable to resolve the Change Proposal. For purposes of further resolution of such a Change Proposal, such notice shall be deemed a denial, and Contractor may choose to seek resolution under the terms of Article 12.

11.07 *Execution of Change Orders*

- A. Owner and Contractor shall execute appropriate Change Orders covering:
1. changes in the 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 11.02, (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 in the Contract Price or Contract Times, or other changes, which embody the substance of any final and binding results under Paragraph 11.06, or Article 12.

- B. If Owner or Contractor refuses to execute a Change Order that is required to be executed under the terms of this Paragraph 11.07, it shall be deemed to be of full force and effect, as if fully executed.

11.08 *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 shall be submitted 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; and
 - 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.
- 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 shall rest with the party making the Claim. In the case of a Claim by Contractor seeking an increase in the Contract Times or Contract Price, or both, 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 shall 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 shall 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 shall 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 shall 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 shall 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 shall 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 shall be incorporated in a Change Order 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. 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 shall be in amounts no higher than those prevailing in the locality of the Project, shall not include any of the costs itemized in Paragraph 13.01.C, and shall 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. Such employees shall include, without limitation, superintendents, foremen, and other personnel employed full time on the Work. Payroll costs for employees not employed full time on the Work shall be apportioned on the basis of their time spent on the Work. Payroll costs shall include, but not be limited to, salaries and wages plus the cost of fringe benefits, which shall include social security contributions, unemployment, excise, and payroll taxes, workers' compensation, health and retirement benefits, bonuses, 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, shall 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 shall accrue to Contractor unless Owner deposits funds with Contractor with which to make payments, in which case the cash discounts shall accrue to Owner. All trade discounts, rebates, and refunds and returns from sale of surplus materials and equipment shall 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, who 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 shall 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 for services specifically related to the Work.
5. Supplemental costs including 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, and hand tools not owned by the workers, 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.
 - c. Rentals of all construction equipment and machinery, and the parts thereof, whether rented from Contractor or others in accordance with rental agreements approved by Owner with the advice of Engineer, and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs shall be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery, or parts shall cease when the use thereof is no longer necessary for the 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 property insurance established in accordance with Paragraph 6.05), 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 shall include settlements made with the written consent and approval of Owner. No such losses, damages, and expenses shall 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 shall not include any of the following items:

- 1. Payroll costs and other compensation of Contractor's officers, executives, principals (of partnerships and sole proprietorships), general managers, safety 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. Expenses of Contractor's principal and branch offices other than Contractor's office at the Site.
- 3. Any part of Contractor's capital expenses, including interest on Contractor's capital employed for the Work and charges against Contractor for delinquent payments.
- 4. 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.
- 5. 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:* When the Work as a whole is performed on the basis of cost-plus, Contractor's fee shall be determined as set forth in the Agreement. When the value of any Work covered by a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price is determined on the basis of Cost of the Work, Contractor's fee shall be determined as set forth in Paragraph 11.04.C.

E. *Documentation:* Whenever the Cost of the Work for any purpose is to be determined pursuant to this Article 13, Contractor will establish and maintain records thereof in accordance with generally accepted accounting practices and submit in a form acceptable to Engineer an itemized cost breakdown together with supporting data.

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 on account of any of the foregoing will be valid.
- C. *Contingency Allowance*: Contractor agrees that a 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 on account of Work covered by allowances, and the Contract Price shall 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, subject to the provisions of the following paragraph.
- E. Within 30 days of Engineer's written decision under the preceding paragraph, Contractor may submit a Change Proposal, or Owner may file a Claim, seeking an adjustment in the Contract Price if:
 - 1. the quantity of any item of Unit Price Work performed by Contractor differs materially and significantly from the estimated quantity of such item indicated in the Agreement;
 - 2. there is no corresponding adjustment with respect to any other item of Work; and
 - 3. Contractor believes that it is entitled to an increase in Contract Price as a result of having incurred additional expense or Owner believes that Owner is entitled to a decrease in Contract Price, and the parties are unable to agree as to the amount of any such increase or decrease.

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 will 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 therewith 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 shall 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 shall 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 shall 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 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 shall 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, or both, 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 shall 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 rejected Work as required by Engineer, or if Contractor fails to perform the Work in accordance with the Contract Documents, or if Contractor fails to comply with any other provision of the Contract Documents, then Owner may, after seven 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 on account of 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. 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 shall also be accompanied by a bill of sale, invoice, or other documentation warranting that Owner has received the materials and equipment free and clear of all Liens, and 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.
 2. Beginning with the second Application for Payment, each Application shall include an affidavit of Contractor stating that all previous progress payments received on account of the Work have been applied on account to discharge Contractor's legitimate obligations associated with prior Applications for Payment.
 3. 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, or
 - b. for the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or
 - c. for Contractor's failure to comply with Laws and Regulations applicable to Contractor's performance of the Work, or
 - d. to make any examination to ascertain how or for what purposes Contractor has used the money paid on account of the Contract Price, 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 on account of Contractor's conduct in the performance or furnishing of the Work, or Owner has incurred costs, losses, or damages on account of 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 that would constitute a default by Contractor and therefore justify a termination for cause has occurred;
 - j. liquidated 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;
 - l. there are other items entitling 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 shall 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 shall be treated as an amount due as determined by Paragraph 15.01.C.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 seven 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 shall 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 seven 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 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 6.05 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 7.11), and other documents, Contractor may make application for final payment.

2. The final Application for Payment shall 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 disputes that Contractor believes are unsettled; 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 Application and Acceptance:*

1. 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 ten days after receipt of the final Application for Payment, indicate in writing Engineer's recommendation of final payment and present the Application for Payment to Owner for payment. Such recommendation shall 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. At the same time Engineer will also give written notice to Owner and Contractor that the Work is acceptable, subject to the provisions of Paragraph 15.07. 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. *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.

D. *Payment Becomes Due:* Thirty days after the presentation to Owner of the final Application for Payment and accompanying documentation, the amount recommended by Engineer (less any further sum Owner is entitled to set off against Engineer's recommendation,

including but not limited to set-offs for liquidated damages and set-offs allowed under the provisions above with respect to progress payments) will become due and shall be paid by Owner to Contractor.

15.07 *Waiver of Claims*

- A. The making of final payment will not constitute a waiver by Owner of claims or rights against Contractor. Owner expressly reserves claims and rights arising from unsettled Liens, from defective Work appearing after final inspection pursuant to Paragraph 15.05, from Contractor's failure to comply with the Contract Documents or the terms of any special guarantees specified therein, from outstanding Claims by Owner, or from Contractor's continuing obligations under the Contract Documents.
- 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 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 terms of any applicable special guarantee required by the Contract Documents, or by any specific provision of the Contract Documents), any Work is found to be defective, or if the repair of any damages to the Site, adjacent areas that Contractor has arranged to use through construction easements or otherwise, and other adjacent areas used by Contractor as permitted by Laws and Regulations, is found to be defective, then 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 other adjacent areas;
 - 2. correct such defective Work;
 - 3. if the defective Work has been rejected by Owner, remove it from the Project and replace it with Work that is not defective, 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 therefrom.
- B. If 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 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 correction or repair or such removal and replacement (including but not limited to all costs of repair or replacement of work of others).
- C. 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.
- D. 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.

- E. Contractor's obligations under this paragraph are in addition to all other obligations and warranties. The provisions of this paragraph shall not 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, or both, directly attributable to any such suspension. Any Change Proposal seeking such adjustments shall 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) ten 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) 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 seven 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 shall govern over any inconsistent provisions of Paragraphs 16.02.B and 16.02.D.

16.03 *Owner May Terminate For Convenience*

- A. Upon seven 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 on account of loss of anticipated overhead, profits, or revenue, 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 seven 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, seven 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; and
 - 2. Disputes between Owner and Contractor concerning the Work or obligations under the Contract Documents, and arising 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; or
 - 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 Documents requires the giving of written notice, it will be deemed to have been validly given if:
 - 1. delivered in person, by a commercial courier service or otherwise, to the individual or to a member of the firm or to an officer of the corporation for which it is intended; or
 - 2. delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the sender of the notice.

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 shall not constitute a waiver of that provision, nor shall 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 or completion of the Contract or termination 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 *Headings*

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

SECTION 00 73 16

SUPPLEMENTARY CONDITIONS

ARTICLE 2 – PRELIMINARY MATTERS

SC-2.01 Delivery of Bonds and Evidence of Insurance

- SC-2.01 Delete Paragraphs 2.01 B. and C. in their entirety and insert the following in their place:
- B. Evidence of Contractor's Insurance: When Contractor delivers the executed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner copies of the policies of insurance (including all endorsements, and identification of applicable self-insured retentions and deductibles) required to be provided by Contractor in Article 6. Contractor may block out (redact) any confidential premium or pricing information contained in any policy or endorsement furnished under this provision.
 - C. Evidence of Owner's Insurance: After receipt from Contractor of the executed counterparts of the Agreement and all required bonds and insurance documentation, Owner shall promptly deliver to Contractor copies of the policies of insurance to be provided by Owner under Article 6 (if any). Owner may block out (redact) any confidential premium or pricing information contained in any policy or endorsement furnished under this provision.

SC-2.02 Copies of Documents

- SC-2.02 Delete Paragraph 2.02.A in its entirety and insert the following new paragraph in its place:
- A. Owner shall furnish to Contractor one copy of conformed Contract Documents incorporating and integrating all Addenda and any amendments negotiated prior to the Effective Date of the Contract (including one fully executed counterpart of the Agreement), and one copy in electronic portable document format (PDF). Additional printed copies of the conformed Contract Documents will be furnished upon request at the cost of reproduction.

SC-2.03 Before Starting Construction

- SC-2.03 Add the following language at the end of the second sentence of Paragraph 2.03.A.3:
- The Schedule of Values shall be subdivided into categories matching each line item on the Bid Form. Additional requirements for the Schedule of Values are supplemented in Specification Section 01 29 00, Payment Procedures.

ARTICLE 5 – AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS;
HAZARDOUS ENVIRONMENTAL CONDITIONS

SC-5.03 Subsurface and Physical Conditions

- SC 5.03 Delete Paragraphs 5.03.A and 5.03.B in their entirety and insert the following:
- A. No reports of explorations or tests of subsurface conditions at or adjacent to the Site, or drawings of physical conditions relating to existing surface or subsurface structures at the Site, are known to Owner.

SC-5.06 Hazardous Environmental Conditions

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

- A. No reports or drawings related to Hazardous Environmental Conditions at the Site are known to Owner.
- B. Not Used.

ARTICLE 6 – BONDS AND INSURANCE

SC-6.03 Contractor's Insurance

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

K. The limits of liability for the insurance required by Paragraph 6.03 of the General Conditions shall provide coverage for not less than the following amounts or greater where required by Laws and Regulations:

- 1. Workers' Compensation, and related coverages under Paragraphs 6.03.A.1 and A.2 of the General Conditions:

State:	<u>Statutory</u>
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Federal, if applicable (e.g., Longshoreman's):	<u>Statutory</u>
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Employer's Liability:

Bodily injury, each accident	\$ <u>1,000,000</u>
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Foreign voluntary worker compensation	<u>Statutory</u>
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- 2. Contractor's Commercial General Liability under Paragraphs 6.03.B and 6.03.C of the General Conditions:

General Aggregate	\$ <u>2,000,000</u>
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Products - Completed Operations Aggregate	\$ <u>1,000,000</u>
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Personal and Advertising Injury	\$ <u>1,000,000</u>
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Each Occurrence (Bodily Injury and Property Damage)	\$ <u>1,000,000</u>
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- 3. Automobile Liability under Paragraph 6.03.D. of the General Conditions:

Combined Single Limit of	\$ <u>1,000,000</u>
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4. Excess or Umbrella Liability:

Per Occurrence	\$ 4,000,000
General Aggregate	\$ 4,000,000

5. Contractor's Pollution Liability:

Each Occurrence	\$ N/A
General Aggregate	\$ N/A



If box is checked, Contractor is not required to provide Contractor's Pollution Liability insurance under this Contract

6. Additional Insureds: In addition to Owner and Engineer, include as additional insureds the following: Columbia County.

ARTICLE 7 – CONTRACTOR'S RESPONSIBILITIES

SC-7.02 Labor; Working Hours

SC-7.02.B. Add the following new subparagraphs immediately after Paragraph 7.02.B:

1. Regular working hours will be 8:00 A.M. to 5:00 P.M.
2. Owner's legal holidays are U.S. Federal holidays as defined in 5 USC 6103.

SC-7.09 Taxes

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

- B. Owner is exempt from payment of sales and compensating use taxes of the State of New York and of cities and counties thereof on all materials to be incorporated into the Work.
1. Owner will furnish the required certificates of tax exemption to Contractor for use in the purchase of supplies and materials to be incorporated into the Work.
 2. Owner's exemption does not apply to construction tools, machinery, equipment, or other property purchased by or leased by Contractor, or to supplies or materials not incorporated into the Work.

SC-7.15 Emergencies

SC 7.15 Add the following paragraph after Paragraph 7.15.A:

- B. Contractor shall designate one person to respond to emergencies and act on the Contractor's behalf during off-work hours at the Site. The person's name, address, and telephone number shall be provided to Owner and Engineer during the preconstruction conference and the designated person shall be on call during off-work hours. Response time shall not exceed one hour after notification is given by Owner and/or Engineer that an emergency exists at the Site.

SC-7.16 Shop Drawings, Samples, and Other Submittals

SC-7.16 Delete Paragraph 17.16.B in its entirety and insert the following new paragraph in its place:

- B. *Submittal Procedures for Shop Drawings and Samples:* Contractor shall submit Shop Drawings and Samples to Engineer for review and approval in accordance with the Contract Documents within 14 days after the Effective Date of the Contract. Each submittal will be identified as Engineer may require.

ARTICLE 10 – ENGINEER’S STATUS DURING CONSTRUCTION

SC-10.03 Project Representative

SC-10.03 Add the following new paragraphs immediately after Paragraph 10.03.A:

- B. The Resident Project Representative (RPR) will be Engineer's representative at the Site, will act as directed by and under the supervision of Engineer, and will confer with Engineer regarding RPR's actions. The authority and responsibilities of RPR will be as follows:
1. General: RPR's dealings in matters pertaining to the Work in general shall be with Engineer and Contractor. RPR's dealings with Subcontractors shall only be through or with the full knowledge and approval of Contractor. RPR shall generally communicate with Owner only with the knowledge of and under the direction of Engineer.
 2. Schedules: Review the progress schedule, schedule of Shop Drawing and Sample submittals, and Schedule of Values prepared by Contractor and consult with Engineer concerning acceptability.
 3. Conferences and Meetings: Attend meetings with Contractor, such as preconstruction conferences, progress meetings, job conferences, and other Project-related meetings, and prepare and circulate copies of minutes thereof.
 4. Liaison:
 - a. Serve as Engineer’s liaison with Contractor. Working principally through Contractor’s authorized representative or designee, assist in providing information regarding the provisions and intent of the Contract Documents.
 - b. Assist Engineer in serving as Owner’s liaison with Contractor when Contractor’s operations affect Owner’s on-Site operations.
 - c. Assist in obtaining from Owner additional details or information, when required for proper execution of the Work.
 5. Interpretation of Contract Documents: Report to Engineer when clarifications and interpretations of the Contract Documents are needed and transmit to Contractor clarifications and interpretations as issued by Engineer.
 6. Shop Drawings and Samples:
 - a. Record date of receipt of Samples and Contractor-approved Shop Drawings.

- b. Receive Samples which are furnished at the Site by Contractor, and notify Engineer of availability of Samples for examination.
 - c. Advise Engineer and Contractor of the commencement of any portion of the Work requiring a Shop Drawing or Sample submittal for which RPR believes that the submittal has not been approved by Engineer.
- 7. Modifications: Consider and evaluate Contractor's suggestions for modifications in Drawings or Specifications and report such suggestions, together with RPR's recommendations, if any, to Engineer. Transmit to Contractor in writing decisions as issued by Engineer.
- 8. Review of Work and Rejection of Defective Work:
 - a. Conduct on-Site observations of Contractor's work in progress to assist Engineer in determining if the Work is in general proceeding in accordance with the Contract Documents.
 - b. Report to Engineer whenever RPR believes that any part of Contractor's work in progress is defective, will not produce a completed Project that conforms generally to the Contract Documents, or will imperil the integrity of the design concept of the completed Project as a functioning whole as indicated in the Contract Documents, or has been damaged, or does not meet the requirements of any inspection, test or approval required to be made; and advise Engineer of that part of work in progress that RPR believes should be corrected or rejected or should be uncovered for observation, or requires special testing, inspection or approval.
- 9. Inspections, Tests, and System Start-ups:
 - a. Verify that tests, equipment, and systems start-ups and operating and maintenance training are conducted in the presence of appropriate Owner's personnel, and that Contractor maintains adequate records thereof.
 - b. Observe, record, and report to Engineer appropriate details relative to the test procedures and systems start-ups.
- 10. Records:
 - a. Prepare a daily report or keep a diary or log book, recording Contractor's hours on the Site, Subcontractors present at the Site, weather conditions, data relative to questions of Change Orders, Field Orders, Work Change Directives, or changed conditions, Site visitors, deliveries of equipment or materials, daily activities, decisions, observations in general, and specific observations in more detail as in the case of observing test procedures; and send copies to Engineer.
 - b. Record names, addresses, fax numbers, e-mail addresses, web site locations, and telephone numbers of all Contractors, Subcontractors, and major Suppliers of materials and equipment.
 - c. Maintain records for use in preparing Project documentation.

11. Reports:

- a. Furnish to Engineer periodic reports as required of progress of the Work and of Contractor's compliance with the Progress Schedule and schedule of Shop Drawing and Sample submittals.
 - b. Draft and recommend to Engineer proposed Change Orders, Work Change Directives, and Field Orders. Obtain backup material from Contractor.
 - c. Immediately notify Engineer of the occurrence of any Site accidents, emergencies, acts of God endangering the Work, force majeure or delay events, damage to property by fire or other causes, or the discovery of any Constituent of Concern or Hazardous Environmental Condition.
12. Payment Requests: Review applications for payment with Contractor for compliance with the established procedure for their submission and forward with recommendations to Engineer, noting particularly the relationship of the payment requested to the Schedule of Values, Work completed, and materials and equipment delivered at the Site but not incorporated in the Work.
13. Certificates, Operation and Maintenance Manuals: During the course of the Work, verify that materials and equipment certificates, operation and maintenance manuals and other data required by the Contract Documents to be assembled and furnished by Contractor are applicable to the items actually installed and in accordance with the Contract Documents, and have these documents delivered to Engineer for review and forwarding to Owner prior to payment for that part of the Work.
14. Completion:
- a. Participate in Engineer's visits to the Site to determine Substantial Completion, assist in the determination of Substantial Completion and the preparation of a punch list of items to be completed or corrected.
 - b. Participate in Engineer's final visit to the Site to determine completion of the Work, in the company of Owner and Contractor, and prepare a final punch list of items to be completed and deficiencies to be remedied.
 - c. Observe whether all items on the final list have been completed or corrected and make recommendations to Engineer concerning acceptance and issuance of the notice of acceptability of the work.

C. The RPR shall not:

1. Authorize any deviation from the Contract Documents or substitution of materials or equipment (including "or-equal" items).
2. Exceed limitations of Engineer's authority as set forth in the Contract Documents.
3. Undertake any of the responsibilities of Contractor, Subcontractors, or Suppliers.
4. Advise on, issue directions relative to, or assume control over any aspect of the means, methods, techniques, sequences or procedures of Contractor's work.

5. Advise on, issue directions regarding, or assume control over security or safety practices, precautions, and programs in connection with the activities or operations of Owner or Contractor.
6. Participate in specialized field or laboratory tests or inspections conducted off-site by others except as specifically authorized by Engineer.
7. Accept Shop Drawing or Sample submittals from anyone other than Contractor.
8. Authorize Owner to occupy the Project in whole or in part.

ARTICLE 12 – CLAIMS

Delete 12.01.D. in its entirety and replace with the following:

12.01.D Adjudication of Claims

- 12.01.D.1. To the fullest extent permitted by law, the Contractor hereby waives any claims that the Owner has been unjustly enriched by any alteration or addition to the Work, whether or not there hereafter is any unjust enrichment to the Work, as a basis for an increase in any amounts due the Contractor or a change in any time period provided for in the Contract.
- 12.01.D.2. Claims for Concealed or Unknown Conditions: If conditions are encountered at the site which are (1) subsurface or otherwise concealed physical conditions which differ materially from those indicated in the Contract Documents or (2) unknown physical conditions of an unusual nature, which differ materially from those ordinarily found to exist and generally recognized as inherent in construction activities of the character provided for in the Contract Documents, then notice by the observing party shall be given to the other party promptly before conditions are disturbed and in no event later than fourteen (14) calendar days after first observance of the conditions. The Engineer will promptly investigate such conditions and, if they differ materially and cause an increase or decrease in the Contractor's cost of, or time required for, performance of any part of the Work, and such difference would not reasonably have been discovered by a reasonably competent Contractor prior to bid, then the Engineer will recommend to the Owner an equitable adjustment in the Contract Sum or the Contract Time, or both. If the Engineer determines that the conditions at the site are not materially different from those indicated in the Contract Documents, or that such difference would reasonably have been discovered by a reasonably competent Contractor prior to bid, and that no change in the terms of the Contract is justified, the Engineer shall so notify the Owner and the Contractor in writing, stating the reasons. Claims by the Contractor in opposition to such determination must be made within 21 days after the Engineer has given notice of the decision. If the conditions encountered are materially different, and such difference would not reasonably have been discovered by a reasonably competent Contractor prior to bid, the Contract Sum and Contract Time shall be equitably adjusted.
- 12.01.D.3. Claims for Additional Cost: If the Contractor wishes to make Claim for an increase in the Contract Sum, written notice as provided herein shall be given before proceeding to execute the Work. Prior notice is not required for Claims relating to an emergency endangering life or property.
- 12.01.D.4. Claims for Additional Time:
 - a. Any Claim for an increase in the Contract Time, must be preceded by written notice detailing the cause of each such delay which notice must be given in writing to the Owner and the Engineer within five (5) days of such time as the occurrence causing the delay

should have been detected. Such notice must specify each such occurrence, describe how the occurrence is causing delay, include an estimate and description of each cost or damage being incurred as a result of the delay, and set forth the probable effect of delay on the progress of the Work.

- b. Failure to strictly comply with these requirements by the Contractor shall constitute a waiver of such claim and constitute sufficient cause to deny any extension of time.
- c. If adverse weather conditions are the basis for a Claim for additional time, such Claim shall be documented by data substantiating that weather conditions were abnormal for the period of time, could not have been reasonably anticipated and had an adverse effect on the scheduled construction.
- d. In planning its construction schedule within the agreed Contract Time, it shall be assumed that the Contractor has anticipated the amount of magnitude of adverse weather conditions normal to the site of the Work for the seasons involved. Only those weather delays attributable to other than normal weather conditions will be considered.

12.01.D.5. An extension of the Contract Time, to the extent permitted hereunder shall be the sole remedy of the Contractor for any (1) delay in the commencement, prosecution or completion of the Work, (2) hindrance or obstruction in the performance of the Work, (3) loss of productivity; or (4) any delay-related claim (collectively referred in this subparagraph as "Delay") whether or not such Delay is foreseeable. In no event shall the Contractor be entitled to any compensation or recovery of any damages, in connection with any Delay, including, without limitation, consequential damages, lost opportunity cost, impact damages, labor inefficiency damages, or overhead costs. Notwithstanding the foregoing, in the event the Delay is solely caused by the acts of the Owner, the Contractor shall be permitted an extension of time to complete the Work and an equitable adjustment to the Contract Sum in the amount of Contractor's increased labor costs caused by the Delay.

12.01.D.6. The Contractor understands that the timely prosecution of Contractor's obligations under the Contract is essential to the efficient completion of the Project and may have a direct bearing on the costs incurred by others. Some of the Contractor's obligations in this regard include, but are not limited to: 1) Completing the Work in an orderly fashion and in accordance with an agreed upon progress schedule; 2) Timely coordination and cooperation with the Owner, the Engineer, and the other Prime Contractors to resolve disruptions, interferences or other problems as they arise; 3) Providing sufficient personnel, systems and procedures to insure that required materials, supplies, and skilled human resources are available so that the Work is timely understood, anticipated, progressed, and communicated where required to others involved with the Project; 4) Maintaining accurate job progress schedules and systems; 5) Timely notifying others working on the site when delays or interferences occur that will affect the Contractor's or others' work pertaining to the Project; 6) Providing a skilled, informed, and properly supported superintendent at the Project site and at all required job meetings to provide meaningful information and commitments to efficiently cooperate in coordinating the Work of the various Contractors; and 7) Timely reviewing all job minutes, correspondence and other communications and responding to same when required. Accordingly, Contractor shall indemnify and save the Owner harmless from all

damages, costs and expenses incurred by reason of Contractor's failure to timely prosecute its obligations under this Agreement.

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

SC-13.01 Cost of the Work

SC 13.01.B.5.c Delete Paragraph 13.01.B.5.c in its entirety and insert the following in its place:

- c. Construction Equipment and Machinery:
 - 1) Rentals of all construction equipment and machinery, and the parts thereof, in accordance with rental agreements approved by Owner with the advice of Engineer, and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs shall be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery, or parts shall cease when the use thereof is no longer necessary for the Work.
 - 2) Costs for equipment and machinery owned by Contractor will be paid at a rate shown for such equipment in FEMA's current Schedule of Equipment Rates. An hourly rate will be computed by dividing the monthly rates by 176. These computed rates will include all operating costs. Costs will include 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, shall cease to accrue when the use thereof is no longer necessary for the changed Work. Equipment or machinery with a value of less than \$1,000 will be considered small tools.

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

SC-15.01.D. Payment Becomes Due

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

- 1. Provided that the Application for Payment is presented to Owner with Engineer's recommendation at least seven days prior to Owner's next regular monthly meeting, the amount recommended (subject to any Owner set-offs) will become due thirty days after such presentation, and when due will be paid by Owner to Contractor.

SC-15.03 Substantial Completion

SC 15.03.B Add the following new subparagraph to Paragraph 15.03.B:

- 1. If some or all of the Work has been determined not to be at a point of Substantial Completion and will require re-inspection or re-testing by Engineer, the cost of such re-inspection or re-testing, including the cost of time, travel and living expenses, shall be paid by Contractor to Owner. If Contractor does not pay, or the parties are unable to agree as to the amount owed, then Owner may impose a reasonable set-off against payments due under Article 15.

ARTICLE 17 – FINAL RESOLUTION OF DISPUTES

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

SC-17.02 Arbitration

- A. All matters subject to final resolution under this Article will be decided by arbitration in accordance with the rules of the American Arbitration Association, subject to the conditions and limitations of this paragraph. This agreement to arbitrate and any other agreement or consent to arbitrate entered into will be specifically enforceable under the prevailing law of any court having jurisdiction.
- B. The demand for arbitration will be filed in writing with the other party to the Contract and with the selected arbitrator or arbitration provider, and a copy will be sent to Engineer for information. The demand for arbitration will be made within the specific time required in this Article, or if no specified time is applicable within a reasonable time after the matter in question has arisen, and in no event shall any such demand be made after the date when institution of legal or equitable proceedings based on such matter in question would be barred by the applicable statute of limitations. The demand for arbitration should include specific reference to Paragraph SC-17.02.D below.
- C. No arbitration arising out of or relating to the Contract shall include by consolidation, joinder, or in any other manner any other individual or entity (including Engineer, and Engineer's consultants and the officers, directors, partners, agents, employees or consultants of any of them) who is not a party to this Contract unless:
 - 1. the inclusion of such other individual or entity is necessary if complete relief is to be afforded among those who are already parties to the arbitration; and
 - 2. such other individual or entity is substantially involved in a question of law or fact which is common to those who are already parties to the arbitration and which will arise in such proceedings.
- D. The award rendered by the arbitrator(s) shall be consistent with the agreement of the parties, in writing, and include a concise breakdown of the award, and a written explanation of the award specifically citing the Contract provisions deemed applicable and relied on in making the award.
- E. The award will be final. Judgment may be entered upon it in any court having jurisdiction thereof, and it will not be subject to modification or appeal, subject to provisions of the Laws and Regulations relating to vacating or modifying an arbitral award.
- F. The fees and expenses of the arbitrators and any arbitration service shall be shared equally by Owner and Contractor.

SC-ARTICLE 19. Add the following new Article:

ARTICLE 19 – NO DISCRIMINATION

SC-19.01 The Contractor will not discriminate against any employee or applicant for employment on the basis of sexual or affectional preference or orientation.

SC-ARTICLE 20. Add the following new Article:

ARTICLE 20 – NEW YORK STATE PUBLIC WORKS LABOR LAWS

SC-20.01 10-Hour Safety Course (NYS Labor Law Section 220-h, eff. 7/18/08).

- A. All laborers, workers, and mechanics employed in the performance of the contract on the public work site, either by the contractor, subcontractor or other person or contracting to the whole or a part of the work contemplated by the contract, shall be certified prior to performing any work on the project as having successfully completed a course in construction safety and health approved by the United States Department of Labor's Occupational Safety and Health Administration is at least ten hours in duration.

SC-20.02 Compliance with Prevailing Wage and Supplements Laws

- A. The following outlines the procedures required by Sections 220 and 220-a of the New York State Labor Law to ensure that all laborers working on this Contract are paid prevailing wages and supplements. Compliance with these procedures, including the filing of payrolls in a manner consistent with Section 220(3-a) of New York Labor Law, is a condition precedent to payment of any sums due and owing to the Contractor for work performed on the Project that is the subject matter of this Contract.
1. Public improvement contractors and subcontractors must provide each of their subcontractors with a copy of the schedule of wages and supplements specified in the public improvement contract before each of the subcontractor's work is started.
 2. Pursuant to Section 220-a(1) of New York Labor Law, upon receipt from the public improvement contractors and subcontractors of a copy of the schedule of wages and supplement specified in the public improvement contract, the subcontractors engaged by a public improvement contractor or subcontractor that engaged them a verified statement attesting that the subcontractor has received and reviewed the schedule of wages and supplements and any subsequently issued schedule and agrees that it will pay the applicable prevailing wages and will pay or provide the supplements specified therein. A blank subcontractor's verified statement that meets the requirements of Section 220-a(1) of the New York Labor Law can be found on herein.
 3. The public improvement contractors and subcontractors must immediately obtain their subcontractors' verified statements. Such verified statements must be maintained by the public improvement contractors and subcontractors until the final payment has been made.
 4. Pursuant to Section 220-a(2) of New York Labor Law, before approval and issuance of final payment on this contract, the Contractor is required to file with the Owner every verified statement required to be obtained by the Contractor from its subcontractors and to file a verified statement with the Owner certifying to the amounts then due and owing from such contractor filing such statement to or on behalf of any and all laborers for daily or weekly wages or supplements on account of labor performed upon the work under the Contract, setting forth therein the names of the persons whose wages of supplements are unpaid and the amount due to each or on behalf of each, respectively. The Contractor's verified statement shall also set forth the amounts known by the Contractor to be then due and owing from each subcontractor, or from a subcontractor of such subcontractor, for wages or supplements, or shall certify that the Contractor has no knowledge of such amounts owing to or on behalf of any laborers of its subcontractors, and that in the event it is determined by the Commissioner of Labor that the wages or supplements or both of any employees of such subcontractors have not been paid or provided pursuant to the appropriate schedule of wages and supplements, the Contractor shall be responsible for payment of such wages or supplements pursuant to the provisions of Section 223

of the New York Labor Law. A blank contractor's verified statement that meets the requirements of Section 220-a(1) of the New York Labor Law can be found with the prevailing wage insert in this Project Manual.

5. If revised schedules of wages and supplements are issued after the verified statement required in subparagraph 2 herein has been provided by the subcontractors, the public improvement contractors and subcontractors must provide each subcontractor with such revised schedules and receive and obtain from each subcontractor a new verified statement.
6. Each contractor and subcontractor shall submit to the Owner within thirty days after the issuance of its first payroll on the Project and every thirty days thereafter, a transcript of the payroll record, as provided for in Article 8 of the New York Labor Law, subscribed to and sworn to or affirmed as true under the penalties of perjury.
7. To satisfy the requirements set forth subparagraph 2 and subparagraph 4, a copy of the subcontractor(s)' verified statement(s) and the Contractor's verified statement must be submitted to the Owner with the Contractor's final payment request. At the same time, the original of the subcontractor(s)' verified statement(s) and the Contractor's verified statement must be sent to the Owner. Failure to obtain and provide the required verified statements will delay the Contractor's final payment.
8. The term "subcontractor" applies to both the subcontractor of the Contractor and subcontractors of a subcontractor.

SC-20.03 Compliance with New York State Public Works Labor Laws

- A. Contractor shall comply with the requirements of New York State Labor Law Article 8, et. seq.). These laws are summarized in the prevailing wage insert in this Project Manual.

SC-20.04 NYS Public Works Labor Laws Web Page

- A. Additional information can be found at the NYS Department of Labor Web pages pertaining to Public Work: <https://www.labor.ny.gov/workerprotection/publicwork/pwcontents.shtm>

+ + END OF SECTION + +



Kathy Hochul, Governor

Roberta Reardon, Commissioner

City Clerk

Leigh Jones
247A Route 100, Suite 2007
Somers NY 10589

Schedule Year 2025
Date Requested 07/24/2025
PRC# 2025009309

Location Plattsburgh
Project ID# 853.027.001
Project Type Construction of walkways, lighting, and landscape improvements for the City of Plattsburgh's existing Veterans Memorial Park.

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 2025 through June 2026. All updates, corrections, posted on the 1st business day of each month, and future copies of the annual determination are available on the Department's website www.labor.ny.gov. Updated PDF copies of your schedule can be accessed by entering your assigned PRC# at the proper location on the website.

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

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

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

NOTICE OF COMPLETION / CANCELLATION OF PROJECT

Date Completed: _____ Date Cancelled: _____

Name & Title of Representative: _____

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

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

Introduction

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

Contractor Registry

Effective December 30, 2024 all contractors and subcontractors submitting bids or performing construction work on public work projects, or private projects covered by Article 8 of the Labor Law, are required to register with the New York State Department of Labor (NYSDOL) under Labor Law Section 220-i. To register, contractors and subcontractors must submit an application through NYSDOL's Contractor Registry portal which is available through the agency's Management System for Protecting Worker Rights (MPWR) <https://mpwr-public.labor.ny.gov/en/login>.

For additional information, please visit [online](#).

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 form the Bureau of Public Work. Requests may be submitted by: mail to NYSDOL, Bureau of Public Work, State Office Bldg. Campus, Bldg. 12, Rm. 130, Albany, NY 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

Payrolls and Payroll Records

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

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

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

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

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

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

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

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

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

Withholding of Payments

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

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

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

Summary of Notice Posting Requirements

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

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

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

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

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

Apprentices

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

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

Persons wishing to verify the apprentice registration of any person must do so in writing by mail, to the NYSDOL Office of Employability Development / Apprenticeship Training, State Office Bldg. Campus, Bldg. 12, Albany, NY 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 Clerk

Leigh Jones
247A Route 100, Suite 2007
Somers NY 10589

Schedule Year 2025
Date Requested 07/24/2025
PRC# 2025009309

Location Plattsburgh
Project ID# 853.027.001
Project Type Construction of walkways, lighting, and landscape improvements for the City of Plattsburgh's existing Veterans Memorial Park.

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

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.

**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.



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)



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: _____

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 to 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.

*Contractor Registry (LL 220-I): Effective December 30th, 2024

Labor Law Section 220-i(6) prohibits contractors from bidding on public work and prohibits both contractors and subcontractors from commencing work on private and public projects subject to prevailing wage requirements. This section requires contractors to submit their Certificate of Registration with their bid materials. Each Certificate of Registration will have a unique registration number. Failure to provide proof of registration, as required by Labor Law Section 220-i, as a minimum qualification will result in the bidder being deemed non-responsive. There is a public database of registered contractors and subcontractors available online at data.ny.gov to confirm registration validity. For additional information on how to register and the requirements, visit <https://dol.ny.gov/public-work-contractor-and-subcontractor-registry-landing>

*Electronic Certified Payroll (LL 220-K): Effective December 31st, 2025

Effective December 31, 2025, all contractors and subcontractors who perform public work, or covered private work subject to the prevailing wage, will be required to submit certified payrolls electronically to the Bureau of Public Work and Prevailing Wage Enforcement. Additional information about the electronic certified payroll submission system will be made available on the Department's Website at <https://dol.ny.gov/Electronic-Payroll>

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.

Shift Work

If the timeline of the contract requires shift work be performed to meet deadlines, the BPWE will enforce the shift work rate as the required rate on the project whether or not shift work is specifically addressed in the contract.

Paid Prenatal Leave

Every employer shall be required to provide to its employees twenty hours of paid prenatal personal leave during any fifty-two week calendar period. Paid prenatal personal leave shall mean leave taken for the health care services received by an employee during their pregnancy or related to such pregnancy, including physical examinations, medical procedures, monitoring and testing, and discussions with a health care provider related to the pregnancy. Paid prenatal personal leave may be taken in hourly increments. Benefits for paid prenatal personal leave shall be paid in hourly installments. Employees shall receive compensation at the employee's regular rate of pay, or the applicable minimum wage established by the labor law, whichever is greater, for the use of Paid Prenatal leave.

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

Clinton County General Construction

Boilermaker

07/01/2025

JOB DESCRIPTION Boilermaker

DISTRICT 7

ENTIRE COUNTIES

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

WAGES

Per hour:	07/01/2025	01/01/2026	01/01/2027
		Additional	Additional
Boilermaker	\$ 40.50	\$ 2.50*	\$ 2.50*

* To be allocated at a later date.

SUPPLEMENTAL BENEFITS

Per hour:

Journeyworker	\$ 26.60*
	+ 1.49

*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 a holiday falls 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:

\$ 19.76*	\$ 19.76*	\$ 20.74*	\$ 21.71*	\$ 22.67*	\$ 23.66*	\$ 24.66*	\$ 25.62*
+ 1.49	+ 1.49	+ 1.49	+ 1.49	+ 1.49	+ 1.49	+ 1.49	+ 1.49

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

7-175

Broadband

07/01/2025

JOB DESCRIPTION Broadband

DISTRICT 4

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, Orleans, Oswego, Otsego, Rensselaer, Saratoga, Schenectady, Schoharie, Schuyler, Seneca, St. Lawrence, Steuben, Suffolk, Sullivan, Tioga, Tompkins, Ulster, Warren, Washington, Wayne, Wyoming, Yates

PARTIAL COUNTIES

Orange: Entire County except Village of Greenwood Lake, Village of Highland Falls, Town of Tuxedo, and Town of Patterson

WAGES

Per Hour:	07/01/2025	08/04/2025
		Additional
Field Tech	\$ 51.27	3% Per Hour
Install/Repair		

For outside work (excluding installation on building construction/alteration/renovation projects), stopping at first point of attachment (demarcation), installing/maintaining/repairing broadband internet service.

Applies to projects receiving ConnectAll funding that are subject to New York State Labor Law §224-E.

SUPPLEMENTAL BENEFITS

Per Hour:

\$ 23.24

OVERTIME PAY

See (B, K, *R) on OVERTIME PAGE

* Two and one half times the hourly rate after the 8th hour

HOLIDAY

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

4-CWA-Dist2

Carpenter - Building

07/01/2025

JOB DESCRIPTION Carpenter - Building

DISTRICT 2

ENTIRE COUNTIES

Clinton, Essex, Franklin, Hamilton

WAGES

Per hour:	07/01/2026	01/01/2026	07/01/2026 Additional	07/01/2027 Additional
Carpenter	\$ 32.17	\$ 32.67	\$ 5.00*	\$ 3.61*
Floor Coverer	32.17	32.67	5.00*	3.61*
Carpet Layer	32.17	32.67	5.00*	3.61*
Dry-Wall	32.17	32.67	5.00*	3.61*
Diver-Wet Day	57.17	57.67	5.00*	3.61*
Diver-Dry Day	33.17	33.67	5.00*	3.61*
Diver Tender	33.17	33.67	5.00*	3.61*

*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 \$3.00 per hour over the journeyworker's rate of pay when the employee is required to be certified and performs AWS, 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 10% of base wage per hour
- 3rd Shift - Premium of 15% 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:	07/01/2025	01/01/2026
Journeyworker	\$ 23.85	\$ 23.85

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:

\$ 12.66	\$ 12.66	\$ 15.26	\$ 15.26
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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 \$3.00 per hour over the apprentices rate of pay when the apprentice is required to be certified and performs AWS, 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.

2-291B-Cli

Carpenter - Building / Heavy&Highway**07/01/2025**

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:	07/01/2025	07/01/2026 Additional	07/01/2027 Additional
Carpenter - ONLY for Artificial Turf/Synthetic Sport Surface	\$ 37.94	\$ 2.25*	\$ 2.25*
* To be allocated at a later date.			

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

SUPPLEMENTAL BENEFITS

Per hour:

Journeyworker \$ 27.34

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:

\$19.10	\$19.69	\$21.83	\$22.42
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2-42AtSS

Carpenter - Heavy&Highway**07/01/2025**

JOB DESCRIPTION Carpenter - Heavy&Highway**DISTRICT** 2**ENTIRE COUNTIES**

Clinton, Essex, Franklin, Hamilton

WAGES

Per hour	07/01/2025	07/01/2026 Additional	07/01/2027 Additional
Carpenter	\$ 42.02	\$ 2.00*	\$ 3.43*

Piledriver	42.02	2.00*	3.43*
Diver-Wet Day	67.02	2.00*	3.43*
Diver-Dry Day	43.02	2.00*	3.43*
Diver-Tender	43.02	2.00*	3.43*

*To be allocated at a later date

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 \$5.00 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 \$.75 per foot
 - 151'to 200' additional \$1.25 per foot
 - 201' and deeper additional \$1.50 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' to 200' additional \$1.00 per foot
 - 201' and deeper additional \$1.25 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 \$4.00 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 \$ 25.80

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

CARPENTER/PILEDRIIVER/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:			
\$ 18.61	\$ 19.20	\$ 21.28	\$ 21.87

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 \$5.00 per hour.

2-291HH-CEFH

Electrician

07/01/2025

JOB DESCRIPTION Electrician

DISTRICT 6

ENTIRE COUNTIES

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

WAGES

Per hour: 07/01/2025 04/01/2026
Additional

Electrician	\$ 43.50	\$ 2.60*
Teledata	43.50	2.60*
Welder	45.50	2.60*

* To be allocated at a later date.

NOTE: Additional amounts, subject to overtime premiums, due for the following work (applicable to all employees):

- 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:

	\$ 25.88 plus
Journeyworker	5.75% of hourly wage paid*

* 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 the Journeyworker's wage.

1-1000	to 2000	to 3500	to 5000	to 6500	to 8000
45%	50%	55%	60%	70%	80%

SUPPLEMENTAL BENEFITS per hour:

1st & 2nd term	\$ 12.17*
All other terms	\$ 25.88*

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

6-910

Elevator Constructor

07/01/2025

JOB DESCRIPTION Elevator Constructor

DISTRICT 1

ENTIRE COUNTIES

Albany, Clinton, Essex, Fulton, Hamilton, Herkimer, Montgomery, Otsego, Rensselaer, Saratoga, Schenectady, Schoharie, Warren, Washington

PARTIAL COUNTIES

Madison: Madison Only the towns of: Brookfield, Hamilton, Lincoln, Madison, Smithfield, Stockbridge and the City of Oneida
Oneida: Entire county except the towns of: Camden, Florence, and Vienna.

WAGES

Per hour

	07/01/2025	01/01/2026
Mechanic	\$ 57.73	\$ 60.26
Helper	70% of Mechanic Wage Rate	70% of Mechanic Wage Rate

SUPPLEMENTAL BENEFITS

Per hour

	07/01/2025	01/01/2026
Journeyworker/Helper	\$ 38.435*	\$ 38.985*

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

OVERTIME PAY

See (D, O) on OVERTIME PAGE

HOLIDAY

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

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

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

REGISTERED APPRENTICES

Wages per hour:

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

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

Supplemental Benefits - per hour worked:

Same as Journeyperson/Helper

1-35

Glazier

07/01/2025

JOB DESCRIPTION Glazier

DISTRICT 1

ENTIRE COUNTIES

Albany, Clinton, Columbia, Essex, Franklin, Fulton, Greene, Hamilton, Montgomery, Rensselaer, Saratoga, Schenectady, Schoharie, Warren, Washington

WAGES

Per hour

	07/01/2025	05/01/2026
Glazier Base Wage	\$ 36.21	Additional \$ 4.00
Plus additional \$4.15 per hour for all hours worked, not subject to overtime/premium		

High Work Base Wage*** \$ 40.75

Plus additional \$4.10 per hour for all hours worked, not subject to overtime/premium

(***)When working on Swing Stage or Lift 100 feet or more in height, measured from the ground level up.

SHIFT WORK

THE FOLLOWING RATES WILL APPLY ON ALL CONTRACTING AGENCY MANDATED SHIFT WORK OR SINGLE IRREGULAR SHIFTS STARTING BETWEEN THE HOURS LISTED BELOW:

4:00pm to 6:30am:	ADDITIONAL 12.5% TO APPLICABLE WAGE RATE AND SUPPLEMENTAL BENEFIT
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SUPPLEMENTAL BENEFITS

Per hour

Journeyworker	\$ 24.40
Journeyworker High Work	\$ 30.17

OVERTIME PAY

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

Premium is applied to the respective base wage only.

HOLIDAY

Paid: See (1) on HOLIDAY PAGE

Overtime: See (5, 6) on HOLIDAY PAGE

Note: If any of the holidays are designated by federal law to be celebrated on a day other than that on which they regularly fall, then the holiday shall be celebrated on the day set by said federal law as if the day on which the holiday is celebrated was actually the holiday date.

REGISTERED APPRENTICES

Wages per hour

Apprentice Glazier 1500 hr. terms at the following percentage of Journeyworkers base wage.

1st	2nd	3rd	4th
50%	65%	75%	90%
+ additional \$4.15 per hour for all hours worked for all terms			

Apprentice Glazier Hi-Work 1500 hr. terms at the following percentage of Journeyworkers Hi-Work base wage.

1st	2nd	3rd	4th
50%	65%	75%	90%
+ additional \$4.10 per hour for all hours worked for all terms			

Supplemental Benefits per hour worked

Apprentice	
1st term	\$ 20.33
2nd-4th term	24.40
Apprentice High Work	
1st term	24.27
2nd-4th term	30.17

1-201

Insulator - Heat & Frost**07/01/2025**

JOB DESCRIPTION Insulator - Heat & Frost

DISTRICT 1

ENTIRE COUNTIES

Clinton, Franklin

WAGES

Wages per hour 07/01/2025

Asbestos Worker*	\$ 35.48
Insulator*	35.48
Firestopping Worker*	35.48

(*) On Mechanical Systems only.

SHIFT WORK

On government mandated shift work additional 12% of wage for all shifts starting after 3:30 Pm.

SUPPLEMENTAL BENEFITS

Per hour

Journeyworker \$ 27.58

OVERTIME PAY

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

*B1=Double time begins after 10 hours on Saturday

**Q=Triple time on Labor Day if worked.

HOLIDAY

Paid: See (1) on HOLIDAY PAGE

Overtime: See (5, 6) on HOLIDAY PAGE

When a holiday falls on Sunday the following Monday shall be observed as the holiday.

REGISTERED APPRENTICES

Wages per hour

One year terms at the following percentage of Journeyperson's wage.

1st	2nd	3rd	4th
60 %	70 %	80 %	90 %

Supplemental Benefits per hour worked:

Apprentices \$ 27.58

1-40/CF

Ironworker**07/01/2025**

JOB DESCRIPTION Ironworker

DISTRICT 1

ENTIRE COUNTIES

Albany, Clinton, Columbia, Delaware, Essex, Greene, Rensselaer, Saratoga, Schenectady, Schoharie, Warren, Washington

PARTIAL COUNTIES

Fulton: Only the Townships of Broadalbin, Mayfield, Northampton, Bleecker and Johnstown.

Hamilton: Only the Townships of Hope, Benson and Wells.

Montgomery: Only the Townships of Florida, Amsterdam, Charleston, Glen, Mohawk and Root.

Otsego: Only the Towns of Unadilla, Butternuts, Morris, Otego, Oneonta, Laurens, Millford, Maryland and Worchester.

WAGES

Wages 07/01/2025
Per hour

Ornamental	\$ 40.75
Reinforcing	40.75
Rodman	40.75
Structural & Precast	40.75
Mover/Rigger	40.75
Fence Erector	40.75
Stone Derrickman	40.75
Sheeter	41.00
Curtain Wall Installer	40.75
Metal Window Installer	40.75

SHIFT WORK

THE FOLLOWING RATE WILL APPLY ON ALL CONTRACTING AGENCY MANDATED SINGLE IRREGULAR SHIFTS:

Shift Starting 4:30 PM to 12:00 AM

REGULAR RATE PLUS 10%

THE FOLLOWING RATES WILL APPLY ON ALL CONTRACTING AGENCY MANDATED MULTIPLE SHIFTWORK:

1st Shift 6:00 AM to 4:30 PM
2nd Shift 2:00 PM to 7:00 PM
3rd Shift 7:00 PM to 12:00 AM

REGULAR RATE
REGULAR RATE PLUS 10%
REGULAR RATE PLUS 15%

SUPPLEMENTAL BENEFITS

Per hour

JOURNEYWORKER \$ 34.17

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

HOLIDAY

Paid: See (1) on HOLIDAY PAGE
Overtime: See (4, 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 on the preceding Friday.

REGISTERED APPRENTICES

Wages per hour

ONE YEAR TERMS AT THE FOLLOWING WAGE RATES:

	07/01/2025
1st year	\$ 23.50
2nd year	25.50
3rd year	27.50
4th year	29.50
Supplemental Benefits per hour worked	
1st year	\$ 11.28
2nd year	23.54
3rd year	25.28
4th year	27.04

1-12

Laborer - Building

07/01/2025

JOB DESCRIPTION Laborer - Building

DISTRICT 7

ENTIRE COUNTIES

Clinton, Essex, Warren

WAGES

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

Group A: All Laborers (except as noted).

Group B: Asbestos & Hazardous Waste Work.

Group C: Wind & Solar Worker.**

Per hour:	07/01/2025	07/01/2026 Additional	07/01/2027 Additional
Group A	\$ 30.78	\$ 3.25*	\$ 3.75*
Group B	33.78	3.25*	3.75*
Group C	33.78	3.25*	3.75*

* To be allocated at a later date.

** 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 \$ 25.58

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:

1-1000	70%
1001-2000	80%
2001-3000	90%
3001-4000	95%

SUPPLEMENTAL BENEFITS per hour:

All Terms: Same as Journeyworker

7-1822ew

Laborer - Heavy&Highway

07/01/2025

JOB DESCRIPTION Laborer - Heavy&Highway

DISTRICT 7

ENTIRE COUNTIES

Clinton, Essex, Warren

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:	07/01/2025	07/01/2026 Additional	07/01/2027 Additional
GROUP A	\$ 35.32	\$ 3.40*	\$ 4.20*
GROUP B	35.52	3.40*	4.20*

GROUP C	35.72	3.40*	4.20*
GROUP D	35.92	3.40*	4.20*
GROUP E	40.52	3.40*	4.20*

* To be allocated at a later date.

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 \$5.00 per hour. Night work, when mandated by DOT shall be paid an additional \$5.00 per hour.

SUPPLEMENTAL BENEFITS

Per hour:

Journeyworker \$ 29.37

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

Laborer - Tunnel

07/01/2025

JOB DESCRIPTION Laborer - Tunnel

DISTRICT 7

ENTIRE COUNTIES

Clinton, Essex, Warren

WAGES

GROUP A: General Laborer.

GROUP B: Changehouse Men, 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:	07/01/2025	07/01/2026	07/01/2027
		Additional	Additional
GROUP A	\$ 38.50	\$ 3.40*	\$ 4.20*
GROUP B	38.70	3.40*	4.20*
GROUP C	43.50	3.40*	4.20*

* To be allocated at a later date.

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 \$5.00 per hour.

SUPPLEMENTAL BENEFITS

Per hour:

Journeyworker \$ 29.37

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 workers work on this Sunday holiday, they shall be paid double time. In the event that workers 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

Lineman Electrician

07/01/2025

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:	07/01/2025	05/04/2026	05/03/2027	05/01/2028
Group A:				
Lineman, Technician	\$ 61.56	\$ 64.37	\$ 66.84	\$ 69.47
Crane, Crawler Backhoe	61.56	64.37	66.84	69.47
Welder, Cable Splicer	61.56	64.37	66.84	69.47
Group B:				
Digging Mach. Operator	\$ 55.40	\$ 57.93	\$ 60.16	\$ 62.52
Group C:				
Tractor Trailer Driver	\$ 52.33	\$ 54.71	\$ 56.81	\$ 59.05
Groundman, Truck Driver	49.25	51.50	53.47	55.58
Equipment Mechanic	49.25	51.50	53.47	55.58
Group D:				
Flagger	\$ 33.86	\$ 35.40	\$ 36.76	\$ 38.21

Additional 3% per hour above regular rate for entire crew when a helicopter is used. This will increase to 5% on May 03, 2027.

-----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	\$ 61.56	\$ 64.37	\$ 66.84	\$ 69.47
Crane, Crawler Backhoe	61.56	64.37	66.84	69.47
Cable Splicer	67.72	70.81	73.52	76.42
Certified Welder, Pipe Type Cable	\$ 64.64	\$ 67.59	\$ 70.18	\$ 72.94
Group B:				
Digging Mach. Operator	\$ 55.40	\$ 57.93	\$ 60.16	\$ 62.52
Group C:				
Tractor Trailer Driver	\$ 52.33	\$ 54.71	\$ 56.81	\$ 59.05
Groundman, Truck Driver	49.25	51.50	53.47	55.58
Equipment Mechanic	49.25	51.50	53.47	55.58
Group D:				
Flagger	\$ 33.86	\$ 35.40	\$ 36.76	\$ 38.12

Additional 3% per hour above regular rate for entire crew when a helicopter is used. This will increase to 5% on May 03, 2027.

-----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	\$ 62.94	\$ 65.81	\$ 68.34	\$ 71.03
Crane, Crawler Backhoe	62.94	65.81	68.34	71.03
Cable Splicer	69.23	72.39	75.17	78.13
Certified Welder, Pipe Type Cable	66.09	69.10	71.76	74.58
Group B:				
Digging Mach. Operator	\$ 56.65	\$ 59.23	\$ 61.51	\$ 63.93
Group C:				
Tractor Trailer Driver	\$ 53.50	\$ 55.94	\$ 58.09	\$ 60.38
Groundman, Truck Driver	50.35	52.65	54.67	56.82
Equipment Mechanic	50.35	52.65	54.67	56.82
Group D:				
Flagger	\$ 34.62	\$ 36.20	\$ 37.59	\$ 39.07

Additional 3% per hour above regular rate for entire crew when a helicopter is used. This will increase to 5% on May 03, 2027.

-----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	\$ 64.18	\$ 67.10	\$ 69.68	\$ 72.43
Crane, Crawler Backhoe	64.18	67.10	69.68	72.43
Group B:				
Digging Mach. Operator	\$ 57.76	\$ 60.39	\$ 62.71	\$ 65.19
Group C:				
Tractor Trailer Driver	\$ 54.55	\$ 57.04	\$ 59.23	\$ 61.57
Groundman, Truck Driver	51.34	53.68	55.74	57.94
Equipment Mechanic	51.34	53.68	55.74	57.94
Group D:				
Flagger	\$ 35.30	\$ 36.91	\$ 38.32	\$ 39.84

Additional 3% per hour above regular rate for entire crew when a helicopter is used. This will increase to 5% on May 03, 2027.

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:

	07/01/2025	05/04/2026	05/03/2027	05/01/2028
Group A	\$ 31.90*	\$ 32.90*	\$ 34.40*	\$ 35.90*
Group B	\$ 27.90*	\$ 28.90*	\$ 30.40*	\$ 31.90*
Group C	\$ 27.70*	\$ 28.50*	\$ 29.70*	\$ 30.90*
Group D	\$ 27.65*	\$ 28.40*	\$ 29.53*	\$ 30.66*

*Plus 7 % of the hourly wage paid. The 7% is based on 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, 15, 25) on HOLIDAY PAGE

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

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:

	07/01/2025	05/04/2026	05/03/2027	05/01/2028
All terms:	\$ 27.65*	\$ 28.40*	\$ 29.53*	\$ 30.66*

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

6-1249a

Lineman Electrician - Teledata

07/01/2025

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

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

Per hour: 07/01/2025

Cable Splicer	\$ 40.81
Installer, Repairman	\$ 38.73
Teledata Lineman	\$ 38.73
Tech., Equip. Operator	\$ 38.73
Groundman/Flagger	\$ 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:

Journeyworker \$ 5.77
 *plus 3% of
 the hour
 wage paid

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

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

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

07/01/2025

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:	07/01/2025	05/04/2026	05/03/2027	05/01/2028
Group A:				
Lineman, Technician	\$ 52.86	\$ 55.31	\$ 57.40	\$ 59.64
Crane, Crawler Backhoe	52.86	55.31	57.40	59.64
Certified Welder	55.50	58.08	60.27	62.62
Group B:				
Digging Machine	\$ 47.57	\$ 49.78	\$ 51.66	\$ 53.68
Group C:				
Tractor Trailer Driver	\$ 44.93	\$ 47.01	\$ 48.79	\$ 50.69
Groundman, Truck Driver	42.29	44.25	45.92	47.71
Equipment Mechanic	42.29	44.25	45.92	47.71
Group D:				
Flagger	\$ 31.72	\$ 33.19	\$ 34.44	\$ 35.78

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:

	07/01/2025	05/04/2026	05/03/2027	05/01/2028
Group A	\$ 31.90*	\$ 32.90*	\$ 34.40*	\$ 35.90*
Group B	\$ 27.90*	\$ 28.90*	\$ 30.40*	\$ 31.90*
Group C	\$ 27.70*	\$ 28.50*	\$ 29.70*	\$ 30.90*
Group D	\$ 27.65*	\$ 28.40*	\$ 29.53*	\$ 30.66*

* Plus 7% of the hourly wage paid. The 7% is based on 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, 15, 25) on HOLIDAY PAGE

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

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:

	07/01/2025	05/04/2026	05/03/2027	05/01/2028
All terms:	\$ 27.65*	\$ 28.40*	\$ 29.53*	\$ 30.66*

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

6-1249a-LT

Lineman Electrician - Tree Trimmer

07/01/2025

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:	07/01/2025	01/04/2026	01/03/2027
Tree Trimmer	\$ 33.18	\$ 34.67	\$ 36.23
Equipment Operator	29.35	30.67	32.05
Equipment Mechanic	29.35	30.67	32.05
Truck Driver	23.85	24.93	26.05
Groundman	19.64	20.53	21.45

Flagger	15.50	16.20	16.93
SUPPLEMENTAL BENEFITS			
Per hour:			
	07/01/2025	01/04/2026	01/03/2027
Journeyworker	\$ 10.98*	\$ 11.23*	\$ 11.48*

* Plus 4.5% of the hourly wage paid. The 4.5% is based on 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, 16, 25) 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

07/01/2025

JOB DESCRIPTION Mason - Building

DISTRICT 12

ENTIRE COUNTIES

Albany, Clinton, Columbia, Essex, Franklin, Fulton, Greene, Hamilton, Montgomery, Rensselaer, Saratoga, Schenectady, Schoharie, Warren, Washington

WAGES

Per hour 07/01/2025

Tile/Marble/Terrazzo

Setter \$ 38.01
Finisher 29.62

SUPPLEMENTAL BENEFITS

Per hour worked

Journeyman Setter \$ 21.83
Journeyman Finisher 18.87

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 0-500 hrs 60%
2nd term 501-1500 hrs 70%
3rd term 1501-2500 hrs 80%
4th term 2501-3500 hrs 85%
5th term 3501-4500 hrs 90%
6th term 4501-6000 hrs 95%

Finisher:
1st term 0-500 hrs 70%
2nd term 501-1500 hrs 80%
3rd term 1501-2500 hrs 90%
4th term 2501-3700 hrs 95%

Supplemental Benefits per hour worked

07/01/2025

Setter:
1st term 0-500 hrs \$ 12.98

2nd term 501-1500 hrs	12.98
3rd term 1501-2500 hrs	17.40
4th term 2501-3500 hrs	17.40
5th term 3501-4500 hrs	19.61
6th term 4501-6000 hrs	21.83

Finisher:

1st term 0-500 hrs	\$ 12.22
2nd term 501-1500 hrs	12.22
3rd term 1501-2500 hrs	15.54
4th term 2501-3700 hrs	15.54

12-2TS.1

Mason - Building

07/01/2025

JOB DESCRIPTION Mason - Building

DISTRICT 12

ENTIRE COUNTIES

Clinton, Essex, Franklin

PARTIAL COUNTIES

Warren: Only the Townships of Chester, Hague, Horicon and Johnsburg.

WAGES

Per hour 07/01/2025

Bricklayer	\$ 37.41
Cement Finisher	37.41
Plasterer/Fireproofers*	37.41
Pointer/Caulker/Cleaner	37.41
Stone Mason	37.41
Acid Brick	37.41

(*)Fireproofers on Structural only.

SUPPLEMENTAL BENEFITS

Per hour worked

Journeyman \$ 22.70

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.

REGISTERED APPRENTICES

Wages per hour

750 hr terms at the following percentage 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

All Terms \$ 22.70

12-2b.8

Mason - Heavy&Highway

07/01/2025

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 12-2h/h on.

WAGES

Per hour

07/01/2025

Mason &
Bricklayer \$ 43.01

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
\$ 22.93

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	\$ 14.13
All Other	22.93

12-2hh.1

Millwright

07/01/2025

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: 07/01/2025

Millwright - \$ 47.00
Power Generation

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 \$ 28.45*

*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	\$ 11.95
Appr. 2nd year	23.50
Appr. 3rd year	25.15
Appr. 4th year	26.80

6-1163Power

Millwright

07/01/2025

JOB DESCRIPTION Millwright

DISTRICT 2

ENTIRE COUNTIES

Clinton, Essex, Franklin, Hamilton, Jefferson, Lewis, Oneida, Onondaga, Oswego, St. Lawrence, Warren, Washington

WAGES

Per hour: 07/01/2025

Building	\$ 38.41
Heavy & Highway	41.91

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	\$ 27.50
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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%

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 Benefits per hour:

Apprentices:

1st term	\$ 11.95
2nd term	22.84
3rd term	24.39
4th term	25.95

2-1163.2

Operating Engineer - Building

07/01/2025

JOB DESCRIPTION Operating Engineer - Building

DISTRICT 1

ENTIRE COUNTIES

Albany, Clinton, Columbia, Essex, Franklin, Fulton, Greene, Hamilton, Herkimer, Montgomery, Otsego, Rensselaer, Saratoga, Schenectady, Schoharie, Warren, Washington

PARTIAL COUNTIES

Dutchess: Defined as north of the northern boundary line of City of Poughkeepsie 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 Route 343 then along Route 343 east to the northern boundary of Town of Dover Plains and east along the northern boundary of Town of Dover Plains to Connecticut.

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, tower cranes**(including self erecting), hydraulic cranes, locomotive crane, piledriver, cableway, derricks, whirlies, dragline, boom trucks, cherry pickers, overhead cranes (gantry or saddle type), truck cranes

CLASS A:

Shovel, Excavators 18,001 lbs. and above(including rubber tire full swing), Gradalls, power road grader, all CMI equipment, front-end rubber tire loader, tractor-mounted drill (quarry master), mucking machine, concrete central mix plant, concrete pump, belcrete system, automated asphalt concrete plant, and tractor road paver, boom trucks 5 tons and under, maintenance engineer, self-contained crawler drill-hydraulic rock drill, Profiler/Milling machine.

CLASS B:

Excavators 18,000 lbs. and under, Backhoes (rubber tired backhoe/loader combination), bulldozer, pushcat, tractor, traxcavator, scraper, LeTourneau grader, form fine grader, self-propelled soil compactor (fill roller), asphalt roller, blacktop spreader, power brooms, sweepers, trenching machine, Barber Green loader, side booms, hydro hammer, concrete spreader, concrete finishing machine, one drum hoist, power hoisting (single drum), hoist two drum or more, three drum engine, power hoisting (two drum and over), two drum and swinging engine, three drum swinging engine, hod hoist, A-L frame winches, core and well drillers (one drum), post hole digger, model CHB Vibro-Tamp or similar machine, batch bin and plant operator, dinky locomotive, skid steer loader, track excavator 5/8 cubic yard or smaller, front end rubber tired loader under four cubic yards, vacuum machine (mounted or towed).

CLASS C:

Fork lift, high lift, all terrain fork lift: or similar, oiler, fireman and heavy-duty greaser, boilers and steam generators, pump, vibrator, motor mixer, air compressor, dust collector, welding machine, well point, mechanical heater, generators, temporary light plants, electric submersible pumps 4" and over, murphy type diesel generator, conveyor, elevators, concrete mixer, beltcrete power pack (belcrete system), seeding, and mulching machines, pumps, rotating telehandler (that does not require NYS crane license).

WAGES per hour

07/01/2025

Class A1* \$ 55.42

Class A	\$ 54.93
Class B	\$ 53.91
Class C	\$ 51.01

(*) TONNAGE RATING PREMIUMS:

Note: Additional value subject to same premiums as shown for OT

All cranes 1000 tons and over, A1 rate plus \$7.00

All cranes 800-999 tons, A1 rate plus \$6.00

All cranes 600-799 tons, A1 rate plus \$5.00

All cranes 400-599 tons, A1 rate plus \$4.00

All cranes 200-399 tons, A1 rate plus \$3.00

All cranes 111-199 tons, A1 rate plus \$2.25

All cranes 110 tons and under, A1 rate only

(**)Additional \$0.50 per hr on A1 rate for Tower Cranes (no tonnage premiums apply)

Additional \$2.50 per hr over B rate for Nuclear Leader work.

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

07/01/2025

Journeyworker

\$ 33.50

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

HOLIDAY

Paid: See (1) on HOLIDAY PAGE

Overtime: See (5, 6) on HOLIDAY PAGE

NOTE: All hours worked on designated holidays shall be paid a double the hourly rate of pay plus 8 hours of straight time.

NOTE: If a holiday falls on Sunday, it will be celebrated on Monday. If the holiday falls on Saturday, it will be celebrated on Friday.

REGISTERED APPRENTICES

Wages per hour

1000 hours terms at the following percentage of Journeyworker's wage Class B

1st	2nd	3rd	4th
60%	70%	80%	90%

Supplemental Benefits per hour worked

07/01/2025

All terms

\$ 28.80

1-158 Alb

Operating Engineer - Heavy&Highway

07/01/2025

JOB DESCRIPTION Operating Engineer - Heavy&Highway

DISTRICT 1

ENTIRE COUNTIES

Albany, Broome, Chenango, Clinton, Columbia, Essex, Franklin, Fulton, Greene, Hamilton, Herkimer, Montgomery, Otsego, Rensselaer, Saratoga, Schenectady, Schoharie, Tioga, Warren, Washington

PARTIAL COUNTIES

Dutchess: Defined as north of the northern boundary line of City of Poughkeepsie 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 Route 343 then along Route 343 east to the northern boundary of Town of Dover Plains and east along the northern boundary of Town of Dover Plains to Connecticut.

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

CLASSIFICATION A1*: All Cranes that require a NYS Crane License; tower cranes(including self erecting)**, hydraulic cranes, locomotive crane, piledriver, cableway, derricks, whirlies, dragline, boom trucks, cherry pickers, overhead cranes (gantry or saddle type), truck cranes

CLASSIFICATION 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, Boom truck, GPS operated Bull Dozer, 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, PB-4 and similar type, Power Grader, Profiler/Milling Machine (over 105 H.P.), Quad 9, Quarry Master (or equivalent), Rotating Telehandler, Scraper (Including Challenger Type), Shovel, Side Boom, Slip Form Paver (If a second man is needed, he shall be an Oiler), Tractor Drawn BeltType Loader, Truck or Trailer Mounted Log Chipper (Self Feeder), Tug Operator (Manned Rented Equipment Excluded), Tunnel Shovel

CLASSIFICATION 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), Brokk, Boring Machine, Cage Hoist, Central Mix Plant [(Non-Automated) and All Concrete Batching Plants], 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, Hi Pressure Boiler (15 lbs. and over), Hoist (One Drum), Hydro-Axe, Kolman Plant Loader and Similar Type Loaders (If Employer requires another man to clean the screen or to maintain the equipment, he shall be an Oiler), L.C.M. Work Boat Operator, Locomotive, Material handling knuckle boom, Mini Excavator (under 18,000 lbs.), Mixer (for stabilized base self-propelled), Monorail Machine, Plant Engineer, Prentice Loader, Profiler/Milling Machine (105 H.P. and under), 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, Vacuum machine (mounted or towed), Vermeer saw (ride on, any size or type), Welder, Winch, Winch Cat

CLASSIFICATION C:

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, Concrete Pavement Spreader and Finisher Concrete Paver or Mixer (16' and under), Concrete Saw (self-propelled), Conveyor, Deck Hand, Directional Drill Machine Locator, Drill (Core and Well), Farm Tractor with accessories, Fine Grade Machine, Fireman, Fork Lift, Form Tamper, Grout Pump, Gunit Machine, Hammers (Hydraulic self-propelled), Hydra-Spiker (ride-on), Hydraulic Pump (jacking system), Hydro-Blaster (Water), Mulching Machine, Oiler, Parapet Concrete or Pavement 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; including all attachments), Span-Saw (ride-on), Steam Cleaner, 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, and the following hands-off equipment: Compressors, Dust Collectors, Generators, Pumps, Welding Machines, Light Plants and Heaters

WAGES per hour

07/01/2025

Class A1*	\$ 60.30
Class A	57.30
Class B	56.39
Class C	53.82

(*) TONNAGE RATING PREMIUMS:

Cranes over 1000 tons, A1 rate plus \$7.00
Cranes from 800-999 tons, A1 rate plus \$6.00
Cranes from 600-799 tons, A1 rate plus \$5.00
Cranes from 400-599 tons, A1 rate plus \$4.00
Cranes from 200-399 tons, A1 rate plus \$3.00
Cranes from 111-199 tons, A1 rate plus \$2.00
Cranes from 65-110 tons, A1 rate plus \$1.50
Cranes from 0-64 Tons, A1 rate only

NOTE: Additional value subject to same premiums as shown for OT

() 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
NOTE: Additional value subject to same premiums as shown for OT

Additional \$2.50 per hr. for hazardous waste removal work on State and/or Federally designated waste site which require employees to wear Level C or above forms of personal protection.

SHIFT WORK

Additional \$2.50 per hour for All Employees who work a single irregular work shift, of at least 5 consecutive days, starting from 5:00 PM to 1:00 AM that is mandated by the Contracting Agency.

SUPPLEMENTAL BENEFITS

Per hour

07/01/2025

Journeyworker \$ 33.70

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 observed on Monday. If the observed Monday Holiday is worked, pay shall be double time plus Holiday pay for time worked. If the Holiday falls on a Saturday and is worked pay shall be double time plus Holiday pay for time worked. If the Holiday falls on a Saturday employer can choose to observe the paid holiday Saturday or give Friday off with holiday pay.

REGISTERED APPRENTICES

Wages per hour

1000 hours terms at the following percentage of Journeyworker's wage Class B

1st	2nd	3rd	4th
60%	70%	80%	90%

Supplemental Benefits per hour worked

07/01/2025

All Terms \$ 28.30

1-158H/H Alb

Operating Engineer - Marine Dredging

07/01/2025

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 wage rates do not apply to Operating Engineers on land-based construction projects. For those projects, refer to the Operating Engineers Heavy/Highway rates. The wage rates listed below apply specifically to all equipment and operators involved in marine dredging work within navigable waters located in the counties listed above.

Per Hour:	07/01/2025	10/01/2025
CLASS A1 Deck Captain, Leverman, Mechanical Dredge Operator, Licensed Tug Operator with MOTV	\$ 47.07	\$ 48.48
CLASS A2 Crane Operator (360 swing)	41.94	43.20
CLASS B Dozer, Front Loader Operator (On Land)	To conform to Operating Engineer Prevailing Wage in locality where work is being performed including benefits.	
CLASS B1 Derrick Operator (180 swing), Spider/Spill Barge Operator I/II, Fill Placer, Engineer, Chief Mate, Electrician, Chief Welder, Maintenance Engineer, Licensed Boat, Crew Boat Operator	40.71	41.93
CLASS B2 Certified Welder	38.31	39.46
CLASS C1 Drag Barge Operator, Steward, Mate, Assistant Fill Placer	37.26	38.38
CLASS C2	36.07	37.15

Boat Operator

CLASS D	29.96	30.86
Shoreman, Deckhand, Oiler, Rodman, Scowman, Cook, Messman, Porter/Janitor		

SUPPLEMENTAL BENEFITS

Per Hour:

THE FOLLOWING SUPPLEMENTAL BENEFITS APPLY TO ALL CATEGORIES

All Classes: 7% of Hourly Straight time wage + \$12.00.

Additional \$0.63 per hour for Overtime hours

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

07/01/2025

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.

07/01/2025

Party Chief	\$ 52.91
Instrument Person	48.67
Rod Person	36.29

Additional \$3.00/hr. for Tunnel Work

Additional \$2.50/hr. for Hazardous Work Site

SUPPLEMENTAL BENEFITS

Per hour worked:

Journeyman	\$ 30.10
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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:

07/01/2025

0-1000	60%
1001-2000	70%
2001-3000	80%

SUPPLEMENTAL BENEFIT per hour worked:

0-1000	\$ 21.88 / PHP \$18.03
1001-2000	24.90 / " 20.45
2001-3000	27.93/ " 22.93

NOTE: PHP is premium hours paid when worked.

12-158-545 D.H.H.

Operating Engineer - Survey Crew - Consulting Engineer

07/01/2025

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, 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 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.

07/01/2025

Party Chief	\$ 52.91
Instrument Person	48.67
Rod Person	36.29

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	\$ 30.10
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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:

07/01/2025

0-1000	60%
1001-2000	70%
2001-3000	80%

SUPPLEMENTAL BENEFIT per hour worked:

0-1000	\$ 21.88 / PHP \$18.03
1001-2000	\$ 24.90 / " 20.45
2001-3000	\$ 27.93 / " 22.93

NOTE: PHP is premium hours paid when worked.

12-158-545 DCE

Operating Engineer - Tunnel

07/01/2025

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.); Gunit 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 Insertor (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: 07/01/2025

CLASS A	\$ 58.44
CLASS B	57.22
CLASS C	54.43
CLASS D	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	\$ 62.44
Crane 2	61.44

Crane 3 60.44

SUPPLEMENTAL BENEFITS

Per hour:

\$ 25.90
+ 10.10*

* This portion of the benefits subject to SAME PREMIUM 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

07/01/2025

JOB DESCRIPTION Painter

DISTRICT 1

ENTIRE COUNTIES

Albany, Clinton, Essex, Franklin, Fulton, Hamilton, Montgomery, Rensselaer, Saratoga, Schenectady, Schoharie, Warren, Washington

WAGES

Per hour

	07/01/2025	05/01/2026
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Painter\Wallcovers	\$ 33.50**	+ \$ 1.55***
Drywall Finishers	33.50**	
Spray Rate	33.50**	
Structural Steel*	34.50**	
Lead Abatement	34.50**	
Lead Abatement on		
Structural Steel	35.50**	

(*)Employees working on objects with the use of swing stage, boatswain chair, pick and cables only will be paid at Structural Steel rate.

(**) Plus Additional \$1.30 per hour not subject to Overtime/Premiums

(***)Plus Additional \$1.35 per hour not subject to Overtime/Premiums

Bridge Painter

See Bridge Painter rates for the following work:

All Bridges and Tanks

SHIFT WORK

THE FOLLOWING ADDITIONAL HOURLY RATE WILL APPLY ON ALL CONTRACTING AGENCY MANDATED SHIFT(S) OR SINGULAR IRREGULAR SHIFT WHEN THE SHIFT STARTS BETWEEN THE HOURS LISTED BELOW:

2:30 PM to 6:00 AM	PLUS \$1.00 to the applicable rate, and this is not subject to overtime
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SUPPLEMENTAL BENEFITS

Per hour

Journeyworker \$ 20.60

OVERTIME PAY

See (B, E2, H) on OVERTIME PAGE

HOLIDAY

Paid: See (1) on HOLIDAY PAGE

Overtime: See (5, 6) on HOLIDAY PAGE

Note: If the holiday falls on Sunday, it shall be observed on Monday.

REGISTERED APPRENTICES

Wages per hour

1000 hour terms at the following percentage of Journeyworker's base wage

Apprentice rate is calculated on the rate before the \$1.30 is added, then add the \$1.30

1st	2nd	3rd	4th	5th	6th
45%	50%	60%	70%	80%	90%

Supplemental Benefits per hour

All Terms \$ 20.60

1-201-P

Painter - Bridge & Structural Steel

07/01/2025

JOB DESCRIPTION Painter - Bridge & Structural Steel

DISTRICT 8

ENTIRE COUNTIES

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

WAGES

Per Hour:

STEEL:

Bridge Painting:	07/01/2025	10/01/2025
	\$ 56.25	Additional
	+ 11.10*	\$3.17**

ADDITIONAL \$7.00 per hour for POWER TOOL/SPRAY, whether straight time or overtime.

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

* For the period of May 1st to November 15th, this amount is payable up to 40 hours. For the period of Nov 16th to April 30th, this amount is payable up to 50 hours. EXCEPTION: First and last week of employment, and for the weeks of Memorial Day, Independence Day and Labor Day, where the amount is paid for the actual number of hours worked (50 hour cap).

** To be allocated a later date

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

SHIFT WORK

When directly specified in public agency or authority contract documents for an employer to work a second shift and works the second shift with employees other than from the first shift, all employees who work the second shift will be paid 10% of the base wage shift differential in lieu of overtime for the first eight (8) hours worked after which the employees shall be paid at time and one half of the regular wage rate.

When a single irregular work shift is mandated in the job specifications or by the contracting agency, wages shall be paid at time and one half for single shifts between the hours of 3pm-11pm or 11pm-7am.

SUPPLEMENTAL BENEFITS

Per Hour:

Journeyworker:

\$ 13.33
+ 30.76*

* For the period of May 1st to November 15th, this amount is payable up to 40 hours. For the period of Nov 16th to April 30th, this amount is payable up to 50 hours. EXCEPTION: First and last week of employment, and for the weeks of Memorial Day, Independence Day and Labor Day, where the amount is paid for the actual number of hours worked (50 hour cap).

OVERTIME PAY

See (B, F, R) on OVERTIME PAGE

HOLIDAY

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

REGISTERED APPRENTICES

Wage - Per hour:

Apprentices: (1) year terms.

1st year \$ 22.50

	+ 4.44
2nd year	\$ 33.75 + 6.63
3rd year	\$ 45.00 + 8.88
Supplemental Benefits - Per hour:	
1st year	\$ 1.52 + 12.51
2nd year	\$ 8.00 + 18.47
3rd year	\$ 10.66 + 24.62

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

8-DC-9/806/155-BrSS

Painter - Line Striping	07/01/2025
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JOB DESCRIPTION Painter - Line Striping

DISTRICT 8

ENTIRE COUNTIES

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

WAGES

Per hour:

Painter (Striping-Highway):	07/01/2025	04/01/2026
Striping-Machine Operator*	\$ 35.49	\$ 36.93
Linerman Thermoplastic	42.74	44.44

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

SHIFT WORK

When directly specified in public agency or authority contract documents there shall be a 30% night shift premium pay differential for all work performed after 9:00pm and before 5:00am.

SUPPLEMENTAL BENEFITS

Per hour paid:

Journeyworker:

Striping Machine Operator:	\$24.30	\$ 24.95
Linerman Thermoplastic:	24.30	24.95

OVERTIME PAY

See (B, B2, E2, F, S) on OVERTIME PAGE

HOLIDAY

Paid: See (5, 20) on HOLIDAY PAGE

Overtime: See (5, 20) on HOLIDAY PAGE

REGISTERED APPRENTICES

One (1) year terms at the following wage rates:

	07/01/2025	01/01/2026	04/01/2026
1st Term:	\$ 16.50	\$ 17.00	\$ 17.00
2nd Term:	21.29	20.47	22.16
3rd Term:	28.39	27.30	29.54

Supplemental Benefits per hour:

All terms:	\$ 24.30	\$ 24.30	\$ 24.95
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8-1456-LS

Painter - Metal Polisher

07/01/2025

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, Schuylar, Seneca, St. Lawrence, Steuben, Suffolk, Sullivan, Tioga, Tompkins, Ulster, Warren, Washington, Wayne, Westchester, Wyoming, Yates

WAGES

	07/01/2025
Metal Polisher	\$ 40.33
Metal Polisher*	41.43
Metal Polisher**	44.33

*Note: Applies on New Construction & complete renovation

** Note: Applies when working on scaffolds over 34 feet.

SUPPLEMENTAL BENEFITS

Per Hour: 07/01/2025

Journeyworker:

All classification \$ 13.44

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:

	07/01/2025
1st year	\$ 20.17
2nd year	22.18
3rd year	24.20
1st year*	\$ 20.56
2nd year*	22.62
3rd year*	24.74
1st year**	\$ 22.67
2nd year**	24.68
3rd year**	26.70

*Note: Applies on New Construction & complete renovation

** Note: Applies when working on scaffolds over 34 feet.

Supplemental benefits:

Per hour:

1st year	\$ 8.94
2nd year	8.94
3rd year	8.94

8-8A/28A-MP

Plumber

07/01/2025

JOB DESCRIPTION Plumber

DISTRICT 1

ENTIRE COUNTIES

Clinton, Warren, Washington

PARTIAL COUNTIES

Saratoga: Entire county except the Townships of Stillwater, Halfmoon, Galway, Milton, Charlton, Clifton Park and City of Mechanicville.

WAGES

Per hour

07/01/2025

Plumber &
Steamfitter \$ 44.88

SUPPLEMENTAL BENEFITS

Per hour

Journeyworker \$ 33.80

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

HOLIDAY

Paid: See (22) on HOLIDAY PAGE

Overtime: See (5, 6, 23) on HOLIDAY PAGE

Note: For the paid Christmas Holiday the employee must have worked 20 regular working days in the calendar year with contractor to qualify

Note: Whenever a Holiday falls on a Saturday, the preceding day, Friday, shall be observed as the Holiday. If a Holiday falls on a Sunday, the following day, Monday shall be observed as the Holiday.

REGISTERED APPRENTICES

Wages per hour

One year terms at the following percentage of Journeyman's wage

1st yr	50%
2nd yr	60%
3rd yr	70%
4th yr	80%
5th yr	90%

Supplemental Benefits per hour worked

1st yr	\$ 24.93
2nd yr	26.70
3rd yr	28.48
4th yr	30.25
5th yr	32.03

1-773-SF

Roofer

07/01/2025

JOB DESCRIPTION Roofer

DISTRICT 1

ENTIRE COUNTIES

Albany, Clinton, Columbia, Essex, Fulton, Greene, Hamilton, Montgomery, Rensselaer, Saratoga, Schenectady, Warren, Washington

WAGES

Per hour

07/01/2025

Roofer/Waterproofer	\$ 38.05
Asphalt Cold Process	38.55
Fluid Applied Roof	38.55
Pitch & Asbestos	40.05

(*) To be allocated at a later date

SHIFT WORK

On all 2nd and 3rd shift work an additional \$4.00 per hour shall be paid

SUPPLEMENTAL BENEFITS

Per hour

Journeyworker \$ 24.27

OVERTIME PAY

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

HOLIDAY

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

Note: When any Holiday falls on Saturday, the Friday before such Holiday shall be recognized as the legal Holiday. When a Holiday falls on Sunday, it shall be observed the following Monday.

REGISTERED APPRENTICES

Wages per hour

Apprentice terms at the following per cent of the Roofer/Waterproofer rate. For Pitch & Asbestos work, an additional \$2.00 must be paid in wages. For Asphalt Cold Process work and Fluid Applied Roof coating, an additional \$0.50 must be paid in the wages.

1st Term 58% + \$ 3.00
1500 hrs.

2nd Term 74% + \$ 3.00
1 yr. and 1500 hrs. as 1st term.

3rd Term 90%
1 yr. and 1500 hrs. as 2nd term.

3rd Term complete at 1 yr and 1050 hrs. as 3rd term

Supplemental Benefits per hour worked

1st Term \$ 19.69
2nd Term 20.12
3rd Term 23.60

1-241

Sheetmetal Worker

07/01/2025

JOB DESCRIPTION Sheetmetal Worker

DISTRICT 1

ENTIRE COUNTIES

Albany, Clinton, Columbia, Essex, Franklin, Fulton, Greene, Hamilton, Montgomery, Rensselaer, Saratoga, Schenectady, Schoharie, Warren, Washington

WAGES

Per hour

07/01/2025

Sheetmetal Worker \$ 42.43

All work requiring HAZWOPER Training additional \$1.00 per hour.

SHIFT WORK

Work performed on 2nd or 3rd shift will be paid an additional 10% added to the wage

SUPPLEMENTAL BENEFITS

Per hour

Journeyworker \$ 37.86

OVERTIME PAY

See (B,E,E5,Q) on OVERTIME PAGE

HOLIDAY

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

When any holiday falls on 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

6 Month Terms at the following rate:

1A term \$ 23.75
1B term 25.68
2A term 26.65
2B term 27.62
3A term 28.12

3B term	29.09
4A term	29.70
4B term	31.82
5A term	33.94
5B term	36.07

Supplemental Benefits per hour

1A term	\$ 23.48
1B term	24.24
2A term	24.56
2B term	24.87
3A term	30.82
3B term	31.58
4A term	33.30
4B term	34.08
5A term	34.85
5B term	35.62

1-83

Sprinkler Fitter	07/01/2025
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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 07/01/2025

Sprinkler \$ 45.06
Fitter

SUPPLEMENTAL BENEFITS

Per hour

Journeyworker \$ 29.41

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
\$ 23.28	\$ 25.98	\$ 28.15	\$ 30.31	\$ 31.94	\$ 34.64	\$ 36.81	\$ 38.97	\$ 41.14	\$ 43.30

Supplemental Benefits per hour

1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
\$ 9.57	\$ 9.57	\$ 21.49	\$ 21.49	\$ 21.74	\$ 21.74	\$ 21.74	\$ 21.74	\$ 21.74	\$ 21.74
1-669									

Teamster - Building	07/01/2025
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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: 07/01/2025

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

07/01/2025

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: 07/01/2025

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	07/01/2025
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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 07/01/2025

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
- (B3) Time and one half of the hourly rate after 40 straight 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) Sunday may be used as a make-up day at straight time when a day is lost during that week due to inclement weather
- (E5) Double time after 8 hours on Saturdays
- (F) Time and one half of the hourly rate on Saturday and Sunday
- (G) Time and one half of the hourly rate on Saturday and Holidays
- (H) Time and one half of the hourly rate on Saturday, Sunday, and Holidays
- (I) Time and one half of the hourly rate on Sunday
- (J) Time and one half of the hourly rate on Sunday and Holidays
- (K) Time and one half of the hourly rate on Holidays
- (L) Double the hourly rate on Saturday
- (M) Double the hourly rate on Saturday and Sunday
- (N) Double the hourly rate on Saturday and Holidays
- (O) Double the hourly rate on Saturday, Sunday, and Holidays
- (P) Double the hourly rate on Sunday
- (Q) Double the hourly rate on Sunday and Holidays
- (R) Double the hourly rate on Holidays

- (S) Two and one half times the hourly rate for Holidays
- (S1) Two and one half times the hourly rate the first 8 hours on Sunday or Holidays One and one half times the hourly rate all additional hours.
- (T) Triple the hourly rate for Holidays
- (U) Four times the hourly rate for Holidays
- (V) Including benefits at SAME PREMIUM as shown for overtime
- (W) Time and one half for benefits on all overtime hours.
- (X) Benefits payable on Paid Holiday at straight time. If worked, additional benefit amount will be required for worked hours. (Refer to other codes listed.)

Holiday Codes

PAID Holidays:

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

OVERTIME Holiday Pay:

Overtime holiday pay is the premium pay that is required for work performed on specified holidays. It is only required where the employee actually performs work on such holidays. The applicable holidays are listed under HOLIDAYS: OVERTIME. The required rate of pay for these covered holidays can be found in the OVERTIME PAY section listings for each classification.

Following is an explanation of the code(s) listed in the HOLIDAY section of each classification contained in the attached schedule. The Holidays as listed below are to be paid at the wage rates at which the employee is normally classified.

- (1) None
- (2) Labor Day
- (3) Memorial Day and Labor Day
- (4) Memorial Day and July 4th
- (5) Memorial Day, July 4th, and Labor Day
- (6) New Year's, Thanksgiving, and Christmas
- (7) Lincoln's Birthday, Washington's Birthday, and Veterans Day
- (8) Good Friday
- (9) Lincoln's Birthday
- (10) Washington's Birthday
- (11) Columbus Day
- (12) Election Day
- (13) Presidential Election Day
- (14) 1/2 Day on Presidential Election Day
- (15) Veterans Day
- (16) Day after Thanksgiving
- (17) July 4th
- (18) 1/2 Day before Christmas
- (19) 1/2 Day before New Years
- (20) Thanksgiving
- (21) New Year's Day
- (22) Christmas
- (23) Day before Christmas
- (24) Day before New Year's
- (25) Presidents' Day
- (26) Martin Luther King, Jr. Day
- (27) Memorial Day
- (28) Easter Sunday

(29) Juneteenth

New York State Department of Labor - Bureau of Public Work
State Office Building Campus
Building 12 - Room 130
Albany, New York 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)

<p>1. Name and complete address <input type="checkbox"/> (Check if new or change)</p> <p>Telephone _____ Fax _____</p> <p>E-Mail: _____</p>	<p>2. NY State Units (see Item 5).</p> <table style="width: 100%;"><tr><td><input type="checkbox"/> 01 DOT</td><td><input type="checkbox"/> 07 City</td></tr><tr><td><input type="checkbox"/> 02 OGS</td><td><input type="checkbox"/> 08 Local School District</td></tr><tr><td><input type="checkbox"/> 03 Dormitory Authority</td><td><input type="checkbox"/> 09 Special Local District, i.e., Fire, Sewer, Water District</td></tr><tr><td><input type="checkbox"/> 04 State University Construction Fund</td><td><input type="checkbox"/> 10 Village</td></tr><tr><td><input type="checkbox"/> 05 Mental Hygiene Facilities Corp.</td><td><input type="checkbox"/> 11 Town</td></tr><tr><td><input type="checkbox"/> 06 OTHER N.Y. STATE UNIT</td><td><input type="checkbox"/> 12 County</td></tr><tr><td></td><td><input type="checkbox"/> 13 Other Non-N.Y. State (Describe)</td></tr></table>	<input type="checkbox"/> 01 DOT	<input type="checkbox"/> 07 City	<input type="checkbox"/> 02 OGS	<input type="checkbox"/> 08 Local School District	<input type="checkbox"/> 03 Dormitory Authority	<input type="checkbox"/> 09 Special Local District, i.e., Fire, Sewer, Water District	<input type="checkbox"/> 04 State University Construction Fund	<input type="checkbox"/> 10 Village	<input type="checkbox"/> 05 Mental Hygiene Facilities Corp.	<input type="checkbox"/> 11 Town	<input type="checkbox"/> 06 OTHER N.Y. STATE UNIT	<input type="checkbox"/> 12 County		<input type="checkbox"/> 13 Other Non-N.Y. State (Describe)
<input type="checkbox"/> 01 DOT	<input type="checkbox"/> 07 City														
<input type="checkbox"/> 02 OGS	<input type="checkbox"/> 08 Local School District														
<input type="checkbox"/> 03 Dormitory Authority	<input type="checkbox"/> 09 Special Local District, i.e., Fire, Sewer, Water District														
<input type="checkbox"/> 04 State University Construction Fund	<input type="checkbox"/> 10 Village														
<input type="checkbox"/> 05 Mental Hygiene Facilities Corp.	<input type="checkbox"/> 11 Town														
<input type="checkbox"/> 06 OTHER N.Y. STATE UNIT	<input type="checkbox"/> 12 County														
	<input type="checkbox"/> 13 Other Non-N.Y. State (Describe)														
<p>3. SEND REPLY TO <input type="checkbox"/> (check if new or change) Name and complete address:</p> <p>Telephone _____ Fax _____</p> <p>E-Mail: _____</p>	<p>4. SERVICE REQUIRED. Check appropriate box and provide project information.</p> <p><input type="checkbox"/> New Schedule of Wages and Supplements. APPROXIMATE BID DATE : _____</p> <p><input type="checkbox"/> Additional Occupation and/or Redetermination</p> <table style="width: 100%;"><tr><td style="border: 1px solid black; padding: 5px; width: 50%;">PRC NUMBER ISSUED PREVIOUSLY FOR THIS PROJECT :</td><td style="border: 1px solid black; padding: 5px; width: 50%;">OFFICE USE ONLY</td></tr></table>	PRC NUMBER ISSUED PREVIOUSLY FOR THIS PROJECT :	OFFICE USE ONLY												
PRC NUMBER ISSUED PREVIOUSLY FOR THIS PROJECT :	OFFICE USE ONLY														

B. PROJECT PARTICULARS

<p>5. Project Title _____</p> <p>Description of Work _____</p> <p>_____</p> <p>Contract Identification Number _____</p> <p>Note: For NYS units, the OSC Contract No. _____</p>	<p>6. Location of Project: Location on Site _____</p> <p>Route No/Street Address _____</p> <p>Village or City _____</p> <p>Town _____</p> <p>County _____</p>																						
<p>7. Nature of Project - Check One:</p> <table style="width: 100%;"><tr><td><input type="checkbox"/> 1. New Building</td></tr><tr><td><input type="checkbox"/> 2. Addition to Existing Structure</td></tr><tr><td><input type="checkbox"/> 3. Heavy and Highway Construction (New and Repair)</td></tr><tr><td><input type="checkbox"/> 4. New Sewer or Waterline</td></tr><tr><td><input type="checkbox"/> 5. Other New Construction (Explain)</td></tr><tr><td><input type="checkbox"/> 6. Other Reconstruction, Maintenance, Repair or Alteration</td></tr><tr><td><input type="checkbox"/> 7. Demolition</td></tr><tr><td><input type="checkbox"/> 8. Building Service Contract</td></tr></table>	<input type="checkbox"/> 1. New Building	<input type="checkbox"/> 2. Addition to Existing Structure	<input type="checkbox"/> 3. Heavy and Highway Construction (New and Repair)	<input type="checkbox"/> 4. New Sewer or Waterline	<input type="checkbox"/> 5. Other New Construction (Explain)	<input type="checkbox"/> 6. Other Reconstruction, Maintenance, Repair or Alteration	<input type="checkbox"/> 7. Demolition	<input type="checkbox"/> 8. Building Service Contract	<p>8. OCCUPATION FOR PROJECT :</p> <table style="width: 100%;"><tr><td><input type="checkbox"/> Construction (Building, Heavy Highway/Sewer/Water)</td><td><input type="checkbox"/> Fuel Delivery</td></tr><tr><td><input type="checkbox"/> Tunnel</td><td><input type="checkbox"/> Guards, Watchmen</td></tr><tr><td><input type="checkbox"/> Residential</td><td><input type="checkbox"/> Janitors, Porters, Cleaners, Elevator Operators</td></tr><tr><td><input type="checkbox"/> Landscape Maintenance</td><td><input type="checkbox"/> Moving furniture and equipment</td></tr><tr><td><input type="checkbox"/> Elevator maintenance</td><td><input type="checkbox"/> Trash and refuse removal</td></tr><tr><td><input type="checkbox"/> Exterminators, Fumigators</td><td><input type="checkbox"/> Window cleaners</td></tr><tr><td><input type="checkbox"/> Fire Safety Director, NYC Only</td><td><input type="checkbox"/> Other (Describe)</td></tr></table>	<input type="checkbox"/> Construction (Building, Heavy Highway/Sewer/Water)	<input type="checkbox"/> Fuel Delivery	<input type="checkbox"/> Tunnel	<input type="checkbox"/> Guards, Watchmen	<input type="checkbox"/> Residential	<input type="checkbox"/> Janitors, Porters, Cleaners, Elevator Operators	<input type="checkbox"/> Landscape Maintenance	<input type="checkbox"/> Moving furniture and equipment	<input type="checkbox"/> Elevator maintenance	<input type="checkbox"/> Trash and refuse removal	<input type="checkbox"/> Exterminators, Fumigators	<input type="checkbox"/> Window cleaners	<input type="checkbox"/> Fire Safety Director, NYC Only	<input type="checkbox"/> Other (Describe)
<input type="checkbox"/> 1. New Building																							
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<input type="checkbox"/> Residential	<input type="checkbox"/> Janitors, Porters, Cleaners, Elevator Operators																						
<input type="checkbox"/> Landscape Maintenance	<input type="checkbox"/> Moving furniture and equipment																						
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<input type="checkbox"/> Exterminators, Fumigators	<input type="checkbox"/> Window cleaners																						
<input type="checkbox"/> Fire Safety Director, NYC Only	<input type="checkbox"/> Other (Describe)																						

9. Does this project comply with the Wicks Law involving separate bidding? YES ☐ NO ☐

10. Name and Title of Requester

Signature



NEW YORK STATE DEPARTMENT OF LABOR
Bureau of Public Work - Debarment List

**LIST OF EMPLOYERS INELIGIBLE TO BID ON OR BE
AWARDED ANY PUBLIC WORK CONTRACT**

Under Article 8 and Article 9 of the NYS Labor Law, a contractor, sub-contractor and/or its successor shall be debarred and ineligible to submit a bid on or be awarded any public work or public building service contract/sub-contract with the state, any municipal corporation or public body for a period of five (5) years from the date of debarment when:

- Two (2) final determinations have been rendered within any consecutive six-year (6) period determining that such contractor, sub-contractor and/or its successor has WILLFULLY failed to pay the prevailing wage and/or supplements;
- One (1) final determination involves falsification of payroll records or the kickback of wages and/or supplements.

The agency issuing the determination and providing the information, is denoted under the heading 'Fiscal Officer'. DOL = New York State Department of Labor; NYC = New York City Comptroller's Office; AG = New York State Attorney General's Office; DA = County District Attorney's Office.

Debarment Database: To search for contractors, sub-contractors and/or their successors debarred from bidding or being awarded any public work contract or subcontract under NYS Labor Law Articles 8 and 9, or under NYS Workers' Compensation Law Section 141-b, access the database at this link: <https://apps.labor.ny.gov/EDList/searchPage.do>

For inquiries please call 518-457-5589.

NYSDOL Bureau of Public Work Debarment List 07/18/2025

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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 MOMBSHA 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	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	NYC	*****2113	BHW CONTRACTING, INC.		401 HANOVER AVENUE STATEN ISLAND NY 10304	01/11/2021	01/11/2026
DOL	DA	*****9290	BJA RENOVATION, CORP		33 DOLLARD DR NORTH BABYLON NY 11703	03/19/2025	03/19/2030
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	*****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	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

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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	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	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		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
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

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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	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	DA		JOSEPH DEMASCO		33 DOLLARD DRIVE NORTH BABYLON NY 11703	03/19/2025	03/19/2030
DOL	DOL		JOSEPH HALL		937 US ROUTE 11 CENTRAL SQUARE NY 13036	10/21/2024	10/21/2029
DOL	DOL	*****2271	JOSEPH HALL COMPANIES LLC		937 US ROUTE 11 CENTRAL SQUARE NY 13036	10/21/2024	10/21/2029
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
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

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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		KEVIN FUNEZ URBINA A/K/A KEVIN FUNEZ		1009 LYNDAL AVE TRENTON NJ 08629	12/16/2024	12/16/2029
DOL	DOL		KIMBERLY F. BAKER		7901 GEE ROAD CANASTOTA NY 13032	08/17/2021	08/17/2026
DOL	DOL	*****8760	KJ&J CONSTRUCTION, LLC		1009 LYNDAL AVE TRENTON NJ 08629	12/16/2024	12/16/2029
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	DOL	*****3716	LIGHTNIN ELECTRIC INC.		3418 NORTHERN BLVD SUITE 5-27LONG ISLAND CITY NY 11101	12/13/2024	12/13/2029
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	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	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	DOL		MOHAMMAD MIAN		8269 21ST ST BELLEROSE NY 11426	12/22/2022	12/22/2027
DOL	NYC		MUHAMMED A. HASHEM		524 MCDONALD AVENUE BROOKLYN NY 11218	09/17/2020	09/17/2025
DOL	NYC		NASEER CHAUDHRY		2349 BRAGG STREET BROOKLYN NY 11229	04/22/2025	04/22/2030
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
DOL	DOL		NELCO CONTRACTING, LLC		1024 BROADWAY ALBANY NY 12204	11/07/2023	11/07/2028
DOL	DA		NICHOLAS BARNETT		33 DOLLARD DR BABYLON NY 11703	03/04/2025	03/04/2030
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

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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 ALLEN TOWN PA 18104	09/17/2020	09/17/2025
DOL	DOL		NIKOLA NTONI		3418 NORTHERN BLVD SUITE 5-27LONG ISLAND CITY NY 11101	12/13/2024	12/13/2029
DOL	NYC	*****6971	NN CONSTRUCTION, INC.		2349 BRAGG STREET BROOKLYN NY 11229	04/22/2025	04/22/2030
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 2NHOPEWELL JUNCTION NY 12533	12/18/2023	12/18/2028
DOL	DOL		PATRICK PENNACCHIO		2345 RT. 52 SUITE 2NHOPEWELL 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	*****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	*****4772	R.W. LOBDELL CONSTRUCTION LLC		635 WEST DRYDEN ROAD FREEVILLE NY 13068	01/31/2025	01/31/2030
DOL	NYC		RASHEL CONSTRUCTION CORP		524 MCDONALD AVENUE BROOKLYN NY 11218	09/17/2020	09/17/2025
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		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 RDPOMPEI NY 13138	07/16/2021	07/16/2026
DOL	DOL		SALVATORE A FRESINA A/K/A SAM FRESINA		107 FACTORY AVE P.O BOX 11070SYRACUSE NY 13218	07/16/2021	07/16/2026
DOL	DOL		SAM FRESINA		107 FACTORY AVE P.O BOX 11070SYRACUSE NY 13218	07/16/2021	07/16/2026
DOL	DA	*****0476	SAMCO ELECTRIC CORP.		3735 9TH ST LONG ISLAND CITY NY 11101	01/05/2023	01/05/2028
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	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

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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	*****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		THOMAS LOBDELL		635 WEST DRYDEN ROAD FREEVILLE NY 13068	01/31/2025	01/31/2030
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 MOMBSHA 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		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
DOL	DOL		XENOFON EFTHIMIADIS		29-10 38TH AVENUE LONG ISLAND CITY NY 11101	10/11/2023	10/11/2028

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ADDENDUM NO. XX

CITY OF PLATTSBURGH
CITY OF PLATTSBURGH VETERANS MEMORIAL PARK IMPROVEMENTS
CONTRACT NO. 1 – GENERAL CONSTRUCTION

Addendum No. XX
Date Issued: DD MMM YYYY

The attention of bidders is called to the following changes to the Bid Documents, shall be taken into account in the preparation of Bids, and shall be a part of the Bid Documents

Bidders must acknowledge receipt of this Addendum on page 1 of the Bid Form.

PROJECT MANUAL

<u>Section</u>	<u>Description</u>
----------------	--------------------

DRAWINGS

<u>Sheet No.</u>	<u>Description</u>
------------------	--------------------

++ END OF ADDENDUM XX ++

Barton & Loguidice, D.P.C.

[Engineer-in-Charge]
[Title]

[ENGR]/[GTA]
Attachments

07.25
853.027.001

ADDENDUM
00 91 13-1

SECTION 01 26 00

CONTRACT MODIFICATION PROCEDURES

PART 1 - GENERAL

1.01 PROPOSAL REQUESTS

- A. The Owner may, in anticipation of ordering an addition, deletion, or revision to the Work, request Contractor prepare a detailed proposal of cost and times to perform contemplated change.
- B. Proposal requests will include reference number for tracking purposes and detailed description of and reason for proposed change, and such additional information as appropriate and as may be required for Contractor to accurately estimate cost and time impact on the Project.
- C. Proposal request is for information only; Contractor is neither authorized to execute proposed change nor stop Work in progress as a result of such request.
- D. Contractor's written proposal shall be transmitted to Engineer promptly, but not later than 14 days after Contractor's receipt of Owner's written request. Proposal shall remain firm for a maximum period of 45 days after receipt.
- E. Owner's request for proposal or Contractor's failure to submit such proposal within the required time period will not justify a Claim for an adjustment in Contract Price or Contract Times.
- F. Contractor may propose changes by submitting a request for change to Engineer, describing the proposed change and its full effect on the Work. Include a statement describing the reason for the change, and the effect on the Contract Price and Contract Time with full documentation.

1.02 CLAIMS

- A. The section supplements the requirements of General Conditions Paragraph 12.01.
- B. Include at a minimum:
 - 1. Specific reference including:
 - a. Drawing numbers.
 - b. Specification section and article/paragraph number.
 - c. Submittal type.
 - d. Submittal number.
 - e. Date reviewed.

- f. Engineer's comment, as applicable with appropriate attachments.
- 2. Stipulated facts and pertinent documents, including photographs and statements.
- 3. Interpretations relied upon.
- 4. Description of:
 - a. Nature and extent of Claim.
 - b. Who or what caused the situation.
 - c. Impact to the Work and work of others.
 - d. Discussion of claimant's justification for requesting a change to price, time, or both.
- 5. Estimated adjustment in price claimant believes it is entitled to with full documentation and justification.
- 6. Requested Change in Contract Times: Include at least:
 - a. Progress Schedule documentation showing logic diagram for request.
 - b. Documentation that float times available for Work have been used.
 - c. Revised activity logic with durations including subnetwork logic revisions, duration changes and other interrelated schedule impacts, as appropriate.
- 7. Documentation as may be necessary as set forth below for Work Change Directive, and as Engineer may otherwise require.

1.03 WORK CHANGE DIRECTIVES

- A. The section supplements the requirements of General Conditions Paragraph 11.02.A.2.
- B. Procedures:
 - 1. Engineer will:
 - a. Initiate, including a description of the Work involved and any attachments.
 - b. Affix signature, demonstrating Engineer's recommendation.
 - c. Transmit one electronic copy to Owner.
 - 2. Owner will:
 - a. Affix signature, demonstrating approval of the changes involved.
 - b. Return one (1) electronic copy to Engineer, who will send to construction observation staff and Contractor.
 - 3. Upon completion of the Work covered by the Work Change Directive or when final Contract Times and Contract Price are determined, Contractor shall submit documentation for inclusion in a Change Order.
 - 4. Contractor's documentation shall include but not be limited to:
 - a. Appropriately detailed records of Work performed to enable determination of value of the Work.

- b. Full information required to substantiate resulting proposed changes in Contract Times and Contract Price for Work. On request of Engineer, provide additional data necessary to support documentation.
 - c. Support data for Work performed on a unit price or Cost of the Work basis with additional information such as:
 - 1) Dates Work was performed and by whom.
 - 2) Time records, wage rates paid, and equipment rental rates.
 - 3) Invoices and receipts for materials, equipment, and subcontracts, are similarly documented.
- C. Effective Date of Work Change Directive: Date of transmittal to Contractor, unless otherwise indicated thereon.

1.04 CHANGE ORDERS

- A. The section supplements the requirements of General Conditions Paragraph 11.02.A.2.
- B. Procedure:
 - 1. Engineer will prepare one electronic copy of Change Order and transmit such attached therewith agreed-upon scopes of work and cost proposal for same. Engineer's signature on the Change Order form is evidence of the Engineer's recommendation that the cost of the Work (increase or decrease) is reasonable and in accordance with the Contract Documents.
 - 2. Contractor shall, upon receipt, review the Change Order and attached scope and cost back-up. If the Change Order and back-up is consistent with Contractor's understanding of the change in Contract scope, then Contractor shall sign and forward one (1) electronic copy of the Change Order back to Engineer.
 - 3. Engineer will, upon receipt of Contractor-signed copies, promptly forward the one (1) electronic copy of the Change Order to the Owner for execution.
 - 4. Upon receipt of Contractor-signed copies, Owner will promptly either:
 - a. Execute the Change Order, retaining one copy for its file and returning one (1) electronic copy to Engineer for distribution.
 - b. Return to Engineer unsigned copies with written justification for not executing the Change Order.
 - 5. Upon receipt of Owner-executed Change Order, Contractor shall:
 - a. Perform Work covered by Change Order.
 - b. Revise Schedule of Values to adjust Contract Price and submit with the next Application for Payment.
 - c. Revise the Progress Schedule to reflect changes in Contract Times, if any, and to adjust times for other items of Work affected by the change.

- C. In signing a Change Order, Owner and Contractor acknowledge and agree that:
1. Stipulated compensation (Contract Price, Contract Time or both) set forth includes payment for:
 - a. The cost of the Work covered by the Change Order.
 - b. The Contractor's fee for overhead and profit and all indirect costs.
 - c. Interruption of Progress Schedule.
 - d. Delay and impact, including cumulative impact, on other Work under the Contract Documents.
 2. Change Order constitutes full mutual accord and satisfaction for the change to the Work.
 3. Unless otherwise stated in the Change Order, all requirements of the original Contract Documents apply to the Work covered by the Change Order.

1.05 COST OF THE WORK

- A. In determining the supplemental costs allowed in Paragraph 13.01 of the General Conditions for rental equipment and machinery, the following will apply.
- B. Rental of construction equipment and machinery and the parts thereof having a replacement value in excess of \$1,000, whether owned by Contractor or rented or leased from others, shall meet the following requirements.
1. Full rental costs for leased equipment shall not exceed rates listed in the Rental Rate Blue Book published by Equipment Watch, Atlanta, GA, as adjusted to the regional area of the Project. Owned equipment costs shall not exceed the single shift rates established in the Cost Reference Guide (CRG), also published by Equipment Watch. The most recent published edition in effect at commencement of actual equipment use shall be used.
 2. Rates shall apply to equipment in good working condition. Equipment not in good condition, or larger than required, may be rejected by the Engineer or accepted at reduced rates.
 3. Leased equipment: For equipment leased or rented in arm's length transactions from outside vendors, maximum rates shall be determined by the following actual usage/Blue Book Payment Category:
 - a. Less than 8 hours: Hourly Rate.
 - b. Eight (8) or more hours, but less than 7 days: Daily Rate.
 - c. Seven (7) or more days, but less than 30 days: Weekly Rate.
 - d. Thirty (30) days or more: Monthly Rate.
 4. "Arm's-length" rental and lease transactions are those in which the firm involved in the rental or lease of equipment is not associated with, owned by, have common management, directorship, facilities and/or stockholders with the firm renting the equipment.

5. Leased Equipment in Use: Actual equipment use time documented by Engineer shall be the basis that equipment was on and utilized at the Project Site. In addition to the leasing rate above, equipment operation costs shall be paid at the estimated hourly operating cost rate set forth in the Blue Book if not already included in the lease rate. Hours of operation shall be based upon actual equipment usage to the nearest quarter hour, as recorded by Engineer.
6. Leased Equipment, When Idle (Standby): Idle or standby equipment is equipment onsite or in transit to and from the Site and necessary to perform the Work under the modification, but not in actual use. Idle equipment time, as documented by Engineer, shall be paid at the leasing rate determined above, excluding operational costs.
7. Owned and Other Equipment in Use: Equipment rates for owned equipment or equipment provided in other than an arm's-length transaction shall not exceed the single shift total hourly costs rate developed in accordance with the CRG and as modified herein for multiple shifts. This total hourly rate will be paid for each hour the equipment actually performs work. Hours of operation shall be based on actual equipment usage as recorded by Engineer. This rate shall represent payment in full for Contractor's direct costs.
8. Owned and Other Equipment, When Idle (Standby): Equipment necessary to be onsite to perform the Work on single shift operations, but not utilized, shall be paid for at the ownership hourly expense rate developed in accordance with the CRG, provided its presence and necessity onsite has been documented by Engineer. Payment for idle time of portions of a normal workday, in conjunction with original contract Work, will not be allowed. In no event shall idle time claimed in a day for a particular piece of equipment exceed the normal Work or shift schedule established for the Project. It is agreed that this rate shall represent payment in full for Contractor's direct costs. When Engineer determines that the equipment is not needed to continuously remain at the Site, payment will be limited to actual hours in use.
9. Owned and Other Equipment, Multiple Shifts: For multiple-shift operations, the CRG single shift total hourly costs rate shall apply to the operating equipment during the first shift. For subsequent shifts, up to 2 in a 24-hour day, operating rate shall be the sum of the total hourly CRG operating cost and 60 percent of the CRG ownership and overhaul expense. Payment for idle or standby time for second and third shifts shall be 20 percent of the CRG ownership and overhaul expense.
10. When necessary to obtain owned equipment from sources beyond the Project limits, the actual cost to transfer equipment to the Site and return it to its original location will be allowed as an addition item of expense. Move-in and move-out allowances will not be made for equipment brought to the Project if the equipment is also used on original Contract or related Work.

11. If the move-out destination is not to the original location, payment for move-out will not exceed payment for move-in.
12. If move is made by common carrier, the allowance will be the amount paid for the freight. If equipment is hauled with Contractor's own forces, rental will be allowed for the hauling unit plus the hauling unit operator's wage. If equipment is transferred under its own power, the rental will be 75 percent of the appropriate total hourly costs for the equipment, without attachments, plus the equipment operator's wage.
13. Charges for time utilized in services equipment to ready it for use prior to moving and similar charges will not be allowed.
14. When a breakdown occurs on any piece of owned equipment, payment shall cease for that equipment and any other owned equipment idled by the breakdown.
15. If any part of the Work is shut down by Owner, standby time will be paid during non-operating hours if diversion of equipment to other Work is not practicable. Engineer reserves the right to cease standby time payment when an extended shutdown is anticipated.
16. If a rate has not been established in the CRG for owned equipment, Contractor may choose one of the following courses of action:
 - a. If approved by Engineer, use the rate of the most similar model found, considering such characteristics as manufacturer, capacity, horsepower, age, and fuel type.
 - b. Request Equipment Watch to furnish a written response for a rate on the equipment, which shall be presented to Engineer for approval.
 - c. Request Engineer to establish a rate.

1.06 FIELD ORDER

- A. The section supplements the requirements of General Conditions Paragraph 11.01.A.3.
- B. Engineer will issue Field Orders, with one (1) electronic copy to Contractor.
- C. Effective date of the Field Order shall be the date of signature by Engineer, unless otherwise indicated thereon.
- D. Contractor shall acknowledge receipt by signing and returning one (1) copy to Engineer.
- E. Field Orders will be incorporated into subsequent Change Orders, as a no-cost change to the Contract.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

+ + END OF SECTION + +

SECTION 01 29 00

PAYMENT PROCEDURES

PART 1 - GENERAL

1.01 SUBMITTALS

- A. Informational Submittals:
 - 1. Schedule of Values: Submit on Form EJCDC C-620.
 - 2. Application for Payment.
 - 3. Final Application for Payment

1.02 CONTINGENCY ALLOWANCE

- A. The contingency allowance will be administered in accordance with Paragraph 13.02 of the General Conditions.

1.03 SCHEDULE OF VALUES

- A. Prepare a separate Schedule of Values for each schedule of the Work under the Agreement.
- B. Upon request of Engineer, provide documentation to support the accuracy of the Schedule of Values.
- C. An unbalanced or front-loaded Schedule of Values will not be accepted.
- D. Summation of the complete Schedule of Values representing all the Work shall equal the Contract Price.
- E. Unit Price Work: Reflect unit price quantity and price breakdown from conformed Bid Form.
- F. Lump Sum Work:
 - 1. Reflect specified allowances and alternates, as applicable.
 - 2. List bonds and insurance premiums, mobilization, demobilization, Progress Schedule preparation and updates, equipment testing, and contract closeout separately.
 - 3. Each line item shall include a directly proportional amount of the Contractor's overhead and profit.
 - 4. Line items shall be subdivided into the Bid Items shown on the Bid Form and further subdivided by structure.
 - 5. At a minimum, all 4-inch diameter and larger yard piping shall be broken out by size and include all associated, trenching, backfill, and compaction costs excluding pavement that may be located above.

6. Paving shall include all associated excavation, subbase, base, pavement, backfill and compaction.
7. At a minimum, concrete shall be subdivided as follows:
 - a. Slab-on-Grade, 8-inches thick or less.
 - b. Slab-on-Grade: Greater than 8-inches thick.
 - c. Walls.
 - d. Columns.
 - e. Beams.
 - f. Suspended slabs.
 - g. Reinforced fill.
 - h. Unreinforced fill.
 - i. Miscellaneous.
8. Revise Schedule of Values to include executed Change Orders with each Application for Payment.

1.04 SCHEDULE OF ESTIMATED PROGRESS PAYMENTS

- A. Show estimated payment requests throughout Contract Times aggregating initial Contract Price.
- B. Base estimated progress payments on initially acceptable Progress Schedule. Adjust to reflect subsequent adjustments in Progress Schedule and Contract Price as reflected by modifications to the Contract Documents.

1.05 APPLICATION FOR PAYMENT

- A. Submit three (3) original signature versions of each application on forms.
- B. Contractor shall have all record documents as identified in General Conditions Article 7.11 current and up to date prior to submitting Applications for Payment.
- C. Use detailed Application for Payment EJCDC C-620.
- D. Prepare separate form for each schedule, as applicable.
- E. Include accepted Schedule of Values for each schedule or portion of lump sum Work and the unit price breakdown for the portions of Work to be paid on a unit price basis.
- F. Include separate line items for each Change Order and Work Change Directive executed prior to date of submission. Provide further breakdown of such, as requested by Engineer.

1.06 PAY ITEMS

- A. General

1. Payment will be made based on the completion of work associated with the Pay Items listed in the Bid Form (Article 5).
2. Each pay item price shall be full compensation for furnishing all labor, materials, equipment, tools, transportation, delivery, handling, storage, supervision, permits, insurance, testing, quality control, cleanup, and incidentals necessary to complete the work in place, fully functional, and ready for use.
3. No separate or additional payment will be made for incidental work or materials not specifically listed but required to complete the project as intended.
4. The Contractor shall include all overhead, profit, mobilization, demobilization, temporary facilities, safety measures, and restoration in the pay item prices.

B. Pay Items

1. Base Bid Item 1.01 – Veterans Memorial Park Improvements (Excluding Alternates)
 - a. Lump Sum (LS) payment for all work indicated in the Contract Documents, excluding Bid Alternates.
 - b. Includes, but is not limited to:
 - 1) Removals and Site Preparation: Demolition, clearing, grubbing, disposal, and site preparation as indicated.
 - 2) Earthwork and Grading: Excavation, fill, compaction, fine grading, subgrade preparation.
 - 3) Pavements and Walkways: Concrete, asphalt, unit pavers, bases, and edges.
 - 4) Site Features: Benches, trash receptacles, signage, lighting, foundations, utilities, hardscape elements.
 - 5) Material Procurement and Handling: All delivery, storage, and protection of materials.
 - 6) Installation: Complete in-place construction including all accessories, adjustments, and testing.
 - 7) Cleanup and Restoration: Final cleaning, fine grading, topsoil placement, seeding, and restoration of disturbed areas.
2. Bid Alternates

Each Alternate will be paid as a separate Lump Sum (LS) item, if accepted by the Owner:

 - a. Alternate 1 – Landscape Planting Area: Includes plant materials, soil preparation, mulch, edging, irrigation (if any), and restoration.
 - b. Alternate 2 – Concrete Caps on Existing Memorial Walls: Includes fabrication, delivery, and installation of concrete caps, including reinforcement, anchorage, sealants, and protection of existing work.

- c. Alternate 3 – Removal of Pea Gravel and Replacement with Colored Concrete: Includes removal and lawful disposal of existing pea gravel, subbase preparation, forming, placing, finishing, curing, jointing, sealing, and color treatment of new concrete.

C. Measurement and Payment

- 1. Measurement: All items will be measured as lump sum units, based on completion of work as specified. No partial measurements unless explicitly approved by the Owner.
- 2. Payment Basis: Payment for each item shall constitute full compensation for the complete work described under that pay item, including all labor, materials, equipment, and incidental work required for proper completion.

1.07 NONPAYMENT FOR REJECTED OR UNUSED PRODUCTS

A. Payment will not be made for the following:

- 1. Loading, hauling, and disposing of rejected material.
- 2. Quantities of material wasted or disposed in a manner not called for in the Contract Documents.
- 3. Rejected loads of material, including material rejected after it has been placed by reason of failure of Contractor to conform to provision of Contract Documents.
- 4. Material not unloaded from transporting vehicle.
- 5. Defective Work not accepted by Owner.
- 6. Material remaining on hand after completion of the Work.

1.08 PARTIAL PAYMENT FOR STORED MATERIALS AND EQUIPMENT

A. Partial Payment: No partial payments will be made for materials and equipment delivered or stored unless Shop Drawings have been approved and preliminary operation and maintenance data has been accepted by Engineer.

B. Final Payment:

- 1. Will be made only for products incorporated into the Work.
- 2. Remaining products, for which partial payments have been made shall revert to Contractor unless otherwise agreed, and partial payments made for those items will be deducted from final payment.

1.09 PARTIAL PAYMENT FOR UNDELIVERED, PROJECT-SPECIFIC MANUFACTURED OR FABRICATED EQUIPMENT

A. Notwithstanding the aforementioned provisions, partial payments for undelivered (not yet delivered to Site or not stored in the vicinity of the Site) products specifically manufactured for this Project, excluding off-the-shelf or catalog items, will be made for products listed below when all following conditions exist:

1. Partial payment request is supported by written acknowledgement from Suppliers that invoice requirements have been met.
2. Equipment is adequately insured, maintained, stored, and protected by appropriate security measures.
3. Each equipment items is clearly marked and segregated from other items to permit inventory and accountability.
4. Authorization has been provided for access to storage Site for Engineer and Owner.
5. Equipment meets applicable Specifications of these Contract Documents.

- B. Failure of Contractor to continue compliance with above requirements shall give cause for Owner to withhold payments made for such equipment from future partial payments.

PART 2 - PRODUCTS

(Not Used)

PART 3 - EXECUTION

(Not Used)

+ + END OF SECTION + +

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SECTION 01 29 00.10

LIEN WAIVER AND RELEASE

WHEREAS, _____, hereafter called the "Undersigned," having entered into a written contract or purchase order with the City of Plattsburgh, hereafter call the "Owner", for the supplying of materials and/or the furnishing of labor and materials, or the furnishing of labor only for the project known as the City of Plattsburgh Veterans Memorial Park Improvements Project.

WHEREAS, Undersigned has requisitioned a PARTIAL/FINAL payment from the Owner pursuant to such contract or purchase order.

NOW, THEREFORE, for good and valuable consideration including the PARTIAL/FINAL payment of \$_____ provided for herein, Undersigned agrees as follows:

- 1) Upon receiving payment from the Owner, the payment to which this instrument refers, Undersigned agrees not in any way to claim or file a mechanic's lien or other lien against said project, premises or any part thereof, or on the monies or other consideration due to become due for the Owner for any of the materials heretofore furnished or work or labor performed or furnished by the Undersigned. Further, the Undersigned hereby formally and irrevocably releases and waives in writing every and any lien, charges or claim of any nature whatsoever that it has, or as to which it may at any time have been entitled, up to and including the date hereof in connection with the said project, except for any unpaid retained monies unless the payment herein is payment of retainage, which lien waiver shall be for the benefit of the Owner of the Project.
- 2) The Undersigned further says that all monies due for this work which includes all labor, material, fuel, transportation and equipment, fringe benefits, pension funds, apprentice training programs, employee vacations, welfare funds, and similar funds and payments as well as all applicable sales and used taxes, royalties, commissions, permits, bonds, guarantees, insurances, licenses, or patent fees have been paid in full except as noted below. (If none write "NONE").

And that there are no persons in a position to have or file a lien against the above mentioned work and/or the premises on which the same is located on account of any labor or materials furnished to Undersigned or any of the Undersigned's subcontractors or suppliers.

- 3) Undersigned agrees that the lien waiver appearing in Paragraph "1" hereof shall be deemed to be in compliance with the Lien Law of the State of New York.
- 4) Undersigned agrees that any of its subcontractors or suppliers being entitled to any of the proceeds of the within payments have been paid except as noted below. (If none write "NONE").

- 5) Furthermore, Undersigned hereby formally and irrevocably releases and waives any rights to make a claim upon any labor and material payment bond issued to the Owner, for this project on account of the labor, services, materials, fixtures or supplies heretofore furnished to this date by the Undersigned for the said project.
- 6) Furthermore, Undersigned hereby formally and irrevocably releases the Owner from all claims of liability, loss or damage to the Undersigned except as noted otherwise herein for anything furnished or performed in connection with, relating to or arising out of the contract or out of the work covered by said contract, including, but not limited to, all claims for extra work, labor or materials, delays or increased costs due to changed conditions, loss of efficiency or productivity, nonsequential work operations, delays, acceleration, suspension of work, and for any prior act, neglect or default on the part of the Owner, or any of its officers, agents or employees in connection therewith, up to and including the date of this waiver, except for any unpaid retained monies.
- 7) The Undersigned further acknowledges that neither the aforesaid payment nor acceptances by the Owner, of the work covered by the aforementioned contract and/or purchase order shall in any way or manner operate as, or constitute a release or waiver of the Undersigned's obligations, undertaking or liabilities under said contract or purchase order or in any way affect or limit the same.

This Agreement shall run to the benefit of the Owner, its successors and assigns;
signed and dated this _ day of _____, 20__.

AMOUNT OF THIS

PARTIAL/FINAL PAYMENT: \$ _____

Office/Authorized Signature

Printed Name and Title

Sworn to before me this _____ day of _____, 200__.

Notary Public

++ END OF SECTION ++

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SECTION 01 33 00

SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.01 SUMMARY

- A. Section includes requirements for the Schedule of Submittals and administrative and procedural requirements for submitting Shop Drawings Samples, and other submittals.

1.02 DEFINITIONS

- A. Action Submittals:
 - 1. Written and graphic information and physical samples that require Engineer's responsive action.
 - 2. Action submittals are those submittals indicated in individual Specification Sections as "action submittals."
- B. Informational Submittals:
 - 1. Written and graphic information and physical Samples that do not require Engineer's responsive action.
 - 2. Submittals may be rejected for not complying with requirements.
 - 3. Informational submittals are those submittals indicated in individual Specification Sections as "informational submittals".
- C. Portable Document Format (PDF): An open file format standard licensed by Adobe Systems used for representing documents in a device-independent and display resolution-independent fixed-layout document format.

1.03 FORMAT

- A. Contractor shall be responsible for submittal all information necessary for submittal approvals. Make submittals to the office of the City Clerk: City of Plattsburgh, 41 City Hall Place, Plattsburgh, New York 12901.
- B. A letter of transmittal shall accompany each submittal. If data for more than one section of the Specifications is submitted, a separate transmittal letter shall accompany the data submitted for each section.
- C. If a Shop Drawing deviates from the requirements of the Contract Documents, Contractor shall specifically note each deviation in its letter of transmittal.
- D. When Samples are required, the quantities are identified in the individual Specification sections.

- E. Contractor's approval:
1. All submittals shall bear the stamp of approval and signature of Contractor as evidence that the submittal has been reviewed by Contractor.
 2. Submittals without this stamp of approval will not be reviewed and will be returned to Contractor.
 3. Contractor's stamp shall contain the following minimum information:
 - a. Project: City of Plattsburgh Veterans Memorial Park Improvements Project
 - b. Contract No: 1 – General Improvements
 - c. Contractor:
 - d. Date:
 - e. Specification section:
 - f. Drawing number(s):
 - g. Submittal No.: BBBB-SS SS SS-sss-rrr, where:
 - 1) BBBB: Bid No.
 - 2) SS SS SS: Specification section number.
 - 3) sss: sequential submittal number.
 - 4) rrr: submittal revision number. All initial submittals shall be revision number "000".
- F. Electronic Submittals: Identify and incorporate information in each electronic submittal file as follows:
1. Assemble complete submittal package into a single indexed file incorporating submittal requirements of a single Specification section.
 2. Submit electronically in PDF format (or DWF format as applicable).
 3. Paper Submittals: No paper submittals will be accepted as part of this Project unless specifically required as part of the Contract Documents or requested by Engineer or Engineer's consultants.
- G. Resubmittals:
1. Make resubmittals in same form and number of copies as initial submittal.
 2. Resubmittals shall be as a standalone submittal, including all applicable information from the previous submittals.
 3. Resubmittals that only include information on revised items will be returned without review.
 4. Note date and content of previous submittal.
 5. Note date and content of revision in label or title block and clearly indicate extent of revision.
 6. Contractor must clearly draw attention to additional revisions made that were not requested in previous submittal review comments.
 7. Resubmit submittals until they are marked with approval notation from Engineer's action stamp.

1.04 SCHEDULE OF SUBMITTALS

- A. Submit three copies of preliminary Schedule of Submittals in accordance with General Conditions Article 2.03.
- B. Revise and resubmit until acceptable to Engineer.

1.05 OR-EQUALS AND SUBSTITUTIONS

- A. Requests for substitutions or consideration of “or equal” items shall be handled as specified in the General Conditions, as modified in the Supplementary Conditions.
- B. Substitutions or “or equal” items shown or implied on the submittal are prohibited and will be rejected.

1.06 DELEGATED DESIGN SERVICES

- A. Performance and design criteria:
 - 1. Where professional design services or certifications by a design professional are specifically required of Contractor by the Contract Documents, provide products and systems complying with specific performance and design criteria indicated.
 - 2. If criteria indicated are not sufficient to perform services or certification required, submit a written request for additional information to Engineer.
- B. Delegated-design services certification:
 - 1. In addition to Shop Drawings, and other submittals, submit digitally signed PDF electronic file copies of certificate, signed and sealed by the responsible design professional, for each product and system specifically assigned to Contractor to be designed or certified by a design professional.
 - 2. Indicate that products and systems comply with performance and design criteria in the Contract Documents. Include list of codes, loads, and other factors used in performing these services.

PART 2 - PRODUCTS

(Not used)

PART 3 - EXECUTION

3.01 CONTRACTOR’S RESPONSIBILITIES

- A. General:

1. Contractor shall forward submittals well in advance of the need for the material or equipment for construction and with required allowance for time required to make delivery of material or equipment after data covering such is approved.
2. Contractor assumes the risk for all material or equipment that is ordered, fabricated, or shipped prior to the approval of submittals.
3. No material or equipment will be permitted to be incorporated into the Work nor will such be included in Applications for Payment until approval thereof has been obtained in the manner specified herein.

B. Coordination:

1. It is Contractor's responsibility to review submittals of its Suppliers and Subcontractors before transmitting them to Engineer to assure proper coordination of the Work, to determine that each submittal is in accordance with the Contract Documents, and that there is sufficient information about material and equipment for Engineer to determine compliance with the Contract Documents.
2. Incomplete or inadequate submittals will be returned for revision without review, as specified herein.
3. Approval of submittals shall not relieve Contractor from the obligation of furnishing material and equipment of proper dimension, size, quality, quantity, and all performance characteristics to perform the requirements and intent of the Contract Documents
4. Engineer's approval shall not relieve Contractor from responsibility for errors of any sort on the submittals.
5. Approval is intended only to assure conformance with the design concept of the Project and compliance with the information given in the Contract Documents.
6. Contractor is responsible for dimensions which shall be confirmed and correlated at the Site.
7. Contractor is responsible for information that pertains solely to the fabrication processes or to the technique of construction and for the coordination of the Work of all trades.

C. Engineer's approval:

1. Submittals not bearing the Engineer's "approved" or "approved as noted" notation shall not be used, issued to Subcontractors, nor utilized for construction purposes.
2. No work shall be performed or equipment installed without an approved Shop Drawing or submittal.
3. Contractor assumes the risk for all work performed or equipment installed without an approved Shop Drawing or submittal.
4. In the event Contractor obtains Engineer's approval for the use of equipment other than that which is shown or specified, Contractor shall, at its own expense and using methods approved by Engineer, make all changes to the Work, including structures, piping, electrical,

equipment and controls, that may be necessary to accommodate this equipment.

3.02 ENGINEER'S ACTION

- A. Engineer will review and process all submittals promptly, but a reasonable time shall be allowed for submittal transmittals, reviews, and revisions.
- B. Contractor shall allow fifteen (15) days for each submittal review and response in the preparation of Progress Schedule unless otherwise specified in the Contract Documents.
- C. In preparing its Construction Progress Schedule, Contractor shall allow for two (2) submittal review cycles for each submittal.
- D. Owner may back-charge Contractor for costs associated with reviewing the third and successive submittal(s).
- E. Engineer will document and notify Owner in writing of all such back charges to be deducted Applications for Payment.

3.03 SUBMITTAL STATUS AND PROCEDURE

- A. After Engineer completes its review, the submittal will be marked with one of the following dispositions:
 - 1. Approved.
 - 2. Approved as noted.
 - 3. No action required.
 - 4. Revise as noted - Resubmit.
 - 5. Rejected – Resubmit as specified.
- B. Submittals marked “Approved”:
 - 1. Submittals that conform to the Contract Documents without comment will be issued a disposition of “Approved”.
 - 2. Contractor may order, fabricate, or ship the materials included in the submittal.
- C. Submittals marked “Approved as noted”:
 - 1. Submittals that conform to the Contract Documents with correction of minor clarifications or omissions will be issued a disposition of “Approved as noted”.
 - 2. Contractor may order, fabricate, or ship the materials included in the submittal that incorporates Engineer’s comments.
- D. Submittals marked “No action required”: Informational submittals will be issued a disposition of “No action required”, acknowledging to Contractor Engineer’s receipt of the submittal.

- E. Submittals marked “Revise as noted - Resubmit”:
1. Submittals that include a named manufacturer or supplier, but contain insufficient information to determine conformance to the Contract Documents will be issued a disposition of “Revise and Resubmit”.
 2. Contractor shall make corrections to satisfy the deficiencies indicated and repeat the submittal procedure.
 3. The resubmittal shall conform to the submittal numbering procedure specified herein.
- F. Submittals marked “Rejected – Resubmit as specified”:
1. Submittals that do not conform to the Contract Documents will be issued a disposition of “Rejected – Resubmit as specified”.
- G. Contractor shall revise the submittal to incorporate equipment or products that comply with the requirements of the Contract Documents.

+ + END OF SECTION + +

SECTION 01 45 16.13

CONTRACTOR QUALITY CONTROL

PART 1 - GENERAL

1.01 REFERENCE STANDARDS

- A. The following is a list of standards which may be referenced in this Section:
 - 1. ASTM International (ASTM):
 - a. D3740, Evaluation of Agencies Engaged in the Testing and/or Inspection of Soil and Rock as Used in Engineering Design and Construction.
 - b. E329, Use in the Evaluation of Testing and Inspection Agencies as Used in Construction.

1.02 DEFINITIONS

- A. Contractor Quality Control (CQC): The means by which the Contractor ensures that the construction, to include that performed by subcontractors and suppliers, complies with the requirements of the Contract.

1.03 SUBMITTALS

- A. Informational submittals:
 - 1. CQC Plan: Submit, not later than 30 days after receipt of Notice to Proceed.
 - 2. CQC Report: Submit, weekly, an original and one copy in report form.

1.04 OWNER'S QUALITY ASSURANCE

- A. All Work is subject to the Owner's quality assurance inspection and testing at all locations and at all reasonable times before acceptance to ensure strict compliance with the requirements of the Contract Documents.
- B. Owner's quality assurance inspections and tests are for the sole benefit the Owner and do not:
 - 1. Relieve the Contractor of responsibility for providing adequate quality control measures.
 - 2. Relieve the Contractor of responsibility for damage to or loss of the material before acceptance.
 - 3. Constitute or imply acceptance.
 - 4. Affect the continuing rights of the Owner after acceptance of the completed Work.
- C. The presence or absence of a quality assurance inspector does not relieve the Contractor from any Contract requirements.

- D. Promptly furnish all facilities, labor, and material reasonably needed for performing such safe and convenient inspections and tests as may be required by the Engineer.
- E. Owner may charge Contractor for any additional cost of inspection or test when Work is not ready at the time specified by the Contractor for inspection or test, or when prior rejection makes re-inspection or retest necessary.
- F. Quality assurance inspections and tests will be performed in a manner that will not unnecessarily delay the Work.

PART 2 - PRODUCTS

(Not used)

PART 3 - EXECUTION

3.01 GENERAL

- A. Maintain an adequate inspection system and perform such inspections as will ensure that the Work conforms to the requirements of the Contract Documents.
- B. Maintain complete inspection records and make them available at all times to the Owner and Engineer.
- C. The quality control system shall consist of plans, procedures, and organization necessary to produce an end product that complies with the Contract Documents. The system shall cover all construction and demolition operations, both onsite and offsite, including Work by subcontractors, fabricators, suppliers, and purchasing agents, and shall be keyed to the proposed construction sequence.

3.02 COORDINATION MEETING

- A. After the Preconstruction Conference, but before start of construction, and prior to acceptance of the CQC Plan, schedule a meeting with the Engineer and Owner to discuss the quality control system.
- B. Develop a mutual understand of the system details, including the forms for recording the CQC operations, control activities, testing, administration of the system for both onsite and offsite Work, and the interrelationship of the Contractor's management and control with the Owner's Quality Assurance.
- C. There may be occasions when subsequent conferences may be called by either party to reconfirm mutual understandings and/or address deficiencies in the

CQC system or procedures that may require corrective action by the Contractor.

3.03 QUALITY CONTROL ORGANIZATION

A. CQC System Manager:

1. Designate an individual within the Contractor's organization who will be responsible for overall management of the CQC and have the authority to act in CQC matters for the Contractor.
2. The CQC System Manager may perform other duties on the Project.
3. The CQC System Manager shall be an experienced construction professional, with a minimum of three years' construction experience on similar type Work.
4. The CQC System Manager shall report to the Contractor's project manager or someone higher in the organization. The project manager in this context shall mean the individual with responsibility for the overall quality and production management of the Project.
5. The CQC System Manager shall be onsite during construction; periods of absence may not exceed 2 weeks at any one time.

B. CQC Staff:

1. Designate a CQC staff, available at the Site at all times during progress, with complete authority to take any action necessary to ensure compliance with the Contract. CQC staff members shall be subject to acceptance by the Engineer.
2. CQC staff shall take direction from CQC System Manager in matters pertaining to QC.
3. CQC staff must be of sufficient size to ensure adequate QC coverage of Work phases, work shifts, and work crews involved in the construction. These personnel may perform other duties, but must be fully qualified by experience and technical training to perform their assigned QC responsibilities and must be allowed sufficient time to carry out these responsibilities.
4. The actual strength of the CQC staff may vary during any specific Work period to cover the needs of the Project. Add additional staff when necessary for a proper CQC organization.

C. Organizational changes: Obtain the Engineer's acceptance before replacing any member of the CQC staff. Requests for changes shall include name, qualifications, duties, and responsibilities of the proposed replacement.

3.04 QUALITY CONTROL PHASING

A. CQC shall include at least three phases of control to be conducted by the CQC System Manager for all definable features of the Work, as follows:

1. Preparatory Phase:

- a. Notify Owner at least 48 hours in advance of beginning any of the required action of the preparatory phase.
 - b. This phase shall include a meeting conducted by the CQC System Manager and attended by the superintendent, other CQC personnel (as applicable), and the foreman responsible for the definable feature. The CQC System Manager shall instruct applicable CQC staff as to the acceptable level of workmanship required in order to meet Contract requirements.
 - c. Document the results of the preparatory phase meeting by separate minutes prepared by the CQC System Manager and attached to the QC report.
 - d. Perform prior to beginning Work on each definable feature of the Work:
 - 1) Review applicable Contract Specifications.
 - 2) Review applicable Contract Drawings.
 - 3) Verify that all materials and/or equipment have been tested, submitted, and approved.
 - 4) Verify that provisions have been made to provide required control inspection and testing.
 - 5) Examine the Work area to verify that all required preliminary Work has been completed and is in compliance with the Contract.
 - 6) Perform a physical examination of required materials, equipment, and sample Work to verify that they are on hand, conform to approved Shop Drawings or submitted data, and are properly stored.
 - 7) Review the appropriate activity hazard analysis to verify safety requirements are met.
 - 8) Review procedures for constructing the Work, including repetitive deficiencies.
 - 9) Document construction tolerances and workmanship standards for that phase of the Work.
 - 10) Check to verify that the plan for the Work to be performed, if so required, has been accepted by the Engineer.
2. Initial phase:
- a. Accomplish at the beginning of a definable feature of Work:
 - 1) Notify the Owner at least 48 hours in advance of beginning initial phase.
 - 2) Perform prior to beginning Work on each definable feature of Work:

- a) Review minutes of the preparatory meeting.
 - b) Check preliminary Work to verify compliance with Contract requirements.
 - c) Verify required control inspection and testing.
 - d) Establish level of workmanship and verify that it meets minimum acceptable workmanship standards.
 - e) Resolve all differences.
 - f) Check safety to include compliance with and upgrading of the safety plan and activity hazard analysis. Review the activity analysis with each worker.
- 3) Separate minutes of this phase shall be prepared by the CQC System Manager and attached to the QC report. Exact location of initial phase shall be indicated for future reference and comparison with follow-up phases.
 - 4) The initial phase should be repeated for each new crew to work onsite, or any time acceptable specified quality standards are not being met.
- 3. Follow-up phase:
 - a. Perform daily checks to verify continuing compliance with Contract requirements, including control testing, until completion of the particular feature of Work.
 - b. Daily checks shall be made a matter of record in the CQC documentation and shall document specific results of inspections for all features of the Work for the day or shift.
 - c. Conduct final follow-up checks and correct all deficiencies prior to the start of additional features of Work that will be affected by the deficient Work. Constructing upon or concealing nonconforming Work will not be allowed.
 - 4. Additional Preparatory and Initial phases: Additional preparatory and initial phases may be conducted on the same definable features of Work as determined by the Owner if the quality of ongoing Work is unacceptable or if there are changes in the applicable QC staff or in the onsite production supervision or work crew, or if Work on a definable feature is resumed after a substantial period of inactivity, or if other problems develop.

3.05 CONTRACTOR QUALITY CONTROL PLAN

A. General:

- 1. Plan shall identify personnel, procedures, control, instructions, test, records, and forms to be used.
- 2. An interim plan for the first 30 days of operation will be considered.
- 3. Construction will be permitted to begin only after acceptance of the CQC Plan or acceptance of an interim plan applicable to the particular feature of Work to be started.

4. Work outside of the features of Work included in an accepted interim plan will not be permitted to begin until acceptance of a CQC Plan or another interim plan containing the additional features of Work to be started.

B. Content:

1. Plan shall cover the intended CQC organization for the entire Contract and shall include the following, as a minimum:
 - a. Organization: Description of the quality control organization, including a chart showing lines of authority and acknowledgement that the CQC staff will implement the three-phase control system for all aspects of the Work specified.
 - b. CQC Staff: The name, qualifications (in resume format), duties, responsibilities, and authorities of each person assigned a QC function.
 - c. Letters of authority: A copy of a letter to the CQC System Manager signed by an authorized official of the firm, describing the responsibilities and delegating sufficient authorities to adequately perform the functions of the CQC System Manager, including authority to stop Work which is not in compliance with the Contract. The CQC System Manager shall issue letters of direction to all other various quality control representatives, outlining duties, authorities, and responsibilities. Copies of these letters will also be furnished to the Owner.
 - d. Submittals: Procedures for scheduling, reviewing, certifying, and managing submittals, including those of subcontractors, offsite fabricators, suppliers, and purchasing agents.
 - e. Testing: Control, verification, and acceptance testing procedures for each specific test to include the test name frequency, specification paragraph containing the test name, frequency, personnel and laboratory responsible for each type of test, as estimate of number of tests required.
 - f. Procedures for tracking preparatory, initial, and follow-up control phases and control, verification, and acceptance tests, including documentation.
 - g. Procedures for tracking deficiencies from identification through acceptable corrective action. These procedures will establish verification that identified deficiencies have been corrected.
 - h. Reporting procedures, including proposed reporting formats; include a copy of the CQC report form.

- C. Acceptance of Plans: Acceptance of the Contractor's basis and addendum CQC plans is required prior to the start of construction. Acceptance is conditional and will be predicated on satisfactory performance during the construction. The Owner reserves the right to require the Contractor to make

changes in the CQC plan and operations including removal of personnel, as necessary, to obtain the quality specified.

- D. Notification of changes: After acceptance of the CQC plan, the Contractor shall notify the Engineer, in writing, a minimum of 7 calendar days prior to any proposed change. Proposed changes are subject to the Engineer's acceptance.

3.06 CONTRACTOR QUALITY CONTROL REPORT

- A. As a minimum, prepare a CQC report for every 7 calendar days. Account for all days throughout the life of the Contract. Reports shall be signed and dated by the CQC System Manager. Include copies of test reports and copies of reports prepared by QC staff.
- B. Maintain current records of quality control operations, activities, and tests performed, including the Work of subcontractors and suppliers.
- C. Records shall be on an acceptable form and shall be a complete description of inspections, the results of inspections, daily activities, tests, and other items, including but not limited to the following:
 - 1. Contractor/subcontractor area of responsibility.
 - 2. Operation plant/equipment with hours worked, idle, or down for repair.
 - 3. Work performed today, giving location, description, and by whom. When a network schedule is used, identify each phase of Work performed each day by activity number.
 - 4. Test and/or control activities performed with results and references to specifications/plan requirements. The control phase should be identified (Preparatory, Initial, Follow-up). List deficiencies noted along with corrective action.
 - 5. Material received with statement as to its acceptability and storage.
 - 6. Identify submittals reviewed, with Contract reference, by whom, and action taken.
 - 7. Offsite surveillance activities, including actions taken.
 - 8. Job safety evaluations stating what was checked, results, and instructions or corrective actions.
 - 9. List instructions given/received and conflicts in Drawings and/or Specifications.
 - 10. Contractor's verification statement.
 - 11. Indicate a description of trades working on the Project, the number of personnel working, weather conditions encountered, and any delay encountered.
 - 12. These records shall cover both conforming and deficient features and shall include a statement that equipment and materials incorporated in file work and workmanship comply with the Contract.

3.07 QUALITY CONTROL SUBMITTALS

- A. Comply with Section 01 33 00, Submittal Procedures.
- B. The CQC organization shall be responsible for certifying that all submittals are in compliance with the Contract requirements.
- C. The Owner will furnish copies of test report forms upon request by the Contractor.
- D. Contractor may use other forms, as approved.

3.08 QUALITY CONTROL TESTING

- A. Testing procedure:
 - 1. Perform tests specified or required to verify that control measures are adequate to provide a product which conforms to the Contract requirements.
 - 2. Perform the following activities and record the following data:
 - a. Verify testing procedures comply with Contract requirements.
 - b. Verify facilities and testing equipment are available and comply with testing standards.
 - c. Check test instrument calibration data against certified standards.
 - d. Verify recording forms and test identification control number system, including all of the test documentation requirements, have been prepared.
 - e. Documentation:
 - 1) Record results of all tests taken, both passing and failing, on the CQC report for the date taken.
 - 2) Include specification paragraph reference, location where tests were taken, and the sequential control number identifying the test.
 - 3) Actual test reports may be submitted later, if approved by the Engineer, with a reference to the test number and date taken.
 - 4) Provide directly to the Engineer an informational copy of tests performed by an offsite or commercial test facility. Test results shall be signed by an engineer registered in the state where tests are performed.
 - 5) Failure to submit timely test reports, as stated, may result in nonpayment for related Work performed and disapproval of the test facility in the Contract.
- B. Testing laboratories:
 - 1. Laboratory facilities, including personnel and equipment utilized for testing soils, concrete, asphalt, and steel shall meet criteria detailed in

ASTM D3740 and ASTM E329, and shall be accredited by the American Association of Laboratory Accreditation (AALA), National Institute of Standards (NIST), National Voluntary Laboratory Accreditation Program (NVLAP), the American Association of State Highway and Transportation Officials (AASHTO), or other approved national accreditation authority.

2. Personnel performing concrete testing shall be certified by the American Concrete Institute (ACI) and National Institute for Certification in Engineering Technologies (NICET).

3.09 COMPLETION INSPECTION

- A. The CQC System Manager shall conduct an inspection of the Work at the completion of all Work or any milestone established by a completion time stated in the Contract.
- B. Punch list:
 1. The CQC System Manager shall develop a punch list of items which do not conform to the Contract requirements.
 2. Include punch list in the CQC report, indicating the estimated date by which the deficiencies will be corrected.
 3. The CQC System Manager or staff shall make a second inspection to ascertain that all deficiencies have been corrected and so notify the Owner.
 4. These inspections and any deficiency corrections required will be accomplished within the time stated for completion of the entire Work or any particular increment thereof if the Project is divided into increments by separate completion dates.

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SECTION 01 50 00

TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.01 REFERENCES

- A. The following is a list of standards which may be referenced in this section
 1. American Nursery and Landscape Association (ANLA): American Standards for Nursery Stock.
 2. Federal Emergency Management Agency (FEMA).
 3. National Fire Prevention Association (NFPA): 241, Standard for Safeguarding Construction, Alteration, and Demolition Operations.
 4. Telecommunications Industry Association (TIA): 568-C, Commercial Building Telecommunications Cabling Standard.
 5. U.S. Department of Agriculture (USDA): Urban Hydrology for Small Watersheds.
 6. U.S. Weather Bureau: Rainfall-Frequency Atlas of the U.S. for Durations from 30 Minutes to 24 Hours and Return Periods from 1 to 100 years.

1.02 SUBMITTALS

- A. Informational Submittals:
 1. Copies of permits and approvals for construction as required by Laws and Regulations and governing agencies.
 2. Temporary Utility submittals:
 - a. Electric power supply and distribution plans.
 - b. Dewatering well locations.
 3. Site Utilization Plan:
 - a. Access Roads: Routes, cross-sections, and drainage facilities.
 - b. Parking area plans.
 - c. Contractor's field office, storage yard, and storage building plans, including gravel surfaced areas.
 - d. Fencing and protective barrier locations and details.
 - e. Engineer's field office plans.
 - f. Staging area location plan.
 - g. Traffic and pedestrian control and routing plans: As specified herein, and proposed revisions thereto.
 - h. Plan for maintenance of existing operations.
 4. Temporary Control Submittals:
 - a. Noise control plan.
 - b. Dust control plan.
 - c. Plan for disposal of waste materials and intended haul routes.
 5. Project Sign and Construction Traffic Signs:

- a. Submit layouts for approval prior to fabrication and delivery.
- b. Design all signs and supports to withstand 75 mph wind load.

1.03 MOBILIZATION

- A. Mobilization shall include, but not be limited to, these principle items:
 - 1. Obtaining required permits.
 - 2. Moving Contractor's field office and equipment required for first month.
 - 3. Installing temporary construction power, wiring and lighting facilities.
 - 4. Providing onsite communication facilities, including telephones.
 - 5. Providing onsite sanitary facilities and potable water facilities as specified and as required by Laws and Regulations.
 - 6. Arrange for and erection of, Contractor's work and storage yard.
 - 7. Posting OSHA required notices and establishing safety programs and procedures.
 - 8. Having Contractor's superintendent at the Site full-time.
- B. Use area designated for Contractor's temporary facilities as shown on the Drawings or as directed by the Owner.

1.04 PROTECTION OF WORK AND PROPERTY

- A. Comply with Owner's safety rules while on Owner's property.
- B. Keep Owner informed of series onsite accidents and related claims.
- C. Use of explosives: No blasting or use of explosives will be allowed onsite.

1.05 VEHICULAR TRAFFIC

- A. Traffic Control Plan:
 - 1. Adhere to traffic control plan reviewed and accepted by Engineer.
 - 2. Changes to this plan shall be made only by written approval of appropriate public authority.
 - 3. Secure approvals for necessary changes so as not to delay progress of the Work.
- B. Traffic Routing Plan: Show sequences of construction affecting use of roadways, time required for each phase of the Work, provisions for decking over excavations and phasing of operations to provide necessary access, and plans for signing, barricading, and striping to provide passages for pedestrians and vehicles.

PART 2 - PRODUCTS

2.01 ENGINEER'S FIELD OFFICE

- A. General Contractor shall furnish equipment specified for exclusive use of Engineer and its representatives.
- B. Ownership of equipment furnished under this article will remain, unless otherwise specified, that of the Contractor.
- C. Equipment furnished shall be new or like new in appearance and function.
- D. Minimum features:
 - 1. 120-volt lighting and wall receptacles.
 - 2. Fluorescent ceiling lights.
 - 3. Electric heating and self-contained air conditioning unit, properly sized for Project location and conditions. Provide ample electric power to operate installed system.
 - 4. Railed stairways and landings at entrance.
 - 5. Sign on entrance door reading "ENGINEER", letter height 4 inches, minimum.
 - 6. Exterior doors:
 - a. Quantity: 2.
 - b. Type: solid core.
 - c. Locks: cylindrical keyed alike.
 - 7. Minimum quantity of windows: 2.
 - 8. Minimum interior height: 8'-0".
- E. Floor space: minimum 300 square feet, based on 12-foot by 25 foot trailer.
- F. Rooms: Two, with minimum private office floor space of 80 square feet, and remainder configured for open meeting or storage space.
- G. Plan table, plan rack, two double desks with desk surface located 29 inches from floor, two 2-drawer, steel file cabinets, and overhead shelf.
- H. General office equipment:
 - 1. Bottled water service: one, with cooler capable of producing both hot and cold water.
 - 2. Paper cup dispenser with full supply of cups: 1
 - 3. Paper towel dispenser quantity: 1.
 - 4. Desk chair: Two with the following characteristics:
 - a. Five-caster base.
 - b. Adjustable height.
 - c. Swivels.
 - d. Locking back.
 - e. Adjustable seat back for height and angle.
 - f. Adjustable arms.

5. Folding Table: 36 inches by 72 inches.
 6. Steel folding chairs: Six.
 7. Drafting table: one, 3 feet by 6 feet.
 8. Four drawer steel file with lock: one, legal width.
 9. Drawing rack with drawing hangers: one.
 10. Wastepaper basket: two.
 11. First Aid kit: one.
 12. A:B:C fire extinguisher: one 10-lb unit, wall hung.
- I. Contractor shall provide weekly office cleaning and trash service.
- J. Computer and hardware:
1. Contractor shall supply one, new completely assembled laptop computer.
 2. This computer shall be furnished to the Owner on completion and acceptance of the Work.
 3. Computer shall meet the following minimum requirements:
 - a. Lenovo ThinkPad X1, Carbon Gen 11, or approved equal.
 - b. Intel Core i7-1355U processor
 - c. Memory: 16 GB LPDDR5 6400 MHz.
 - d. Storage: 476 GB SSD Gen 4 Performance.
 - e. 14" WUXGA touchscreen, diagonal widescreen display.
 - f. Four x 360-degree quad-array built-in microphones.
 - g. Internal speakers.
 - h. Camera: FHD RGB with webcam privacy shutter.
 - i. Connectivity:
 - 1) 10/100 Base-T Ethernet.
 - 2) 2xUSB-C Thunderbolt 4.
 - 3) 2xUSB-A 3.2 Gen 1.
 - 4) Headphone/microphone combo.
 - 5) HDMI 2.1 supporting resolution up to 4K at 60 Hz.
 - j. WiFi:
 - 1) WLAN: WiFi 6E AX211 802.11AX
 - 2) Bluetooth 5.3.
 - k. Keyboard:
 - 1) Spill-resistant.
 - 2) Glass trackpad 110 mm.
 - 3) Backlit with white LED lighting.
 - 4) Air intake keys.
 - l. Norton anti-virus software, latest version.
 - m. Protective carrying case.
 4. Software and operating system:
 - a. Windows 11 Professional 64 with latest service packs, by Microsoft Corporation.

2.02 PROJECT SIGN

- A. General Contractor shall provide and maintain one project sign.
- B. Sign shall be constructed of 3/4-inch APA rated, A-B grade exterior plywood rabbeted into a 2"x 4" nominal frame or other suitable materials and shall meeting the design and graphic standard as shown on the attached schematic.

PART 3 - EXECUTION

3.01 ENGINEER'S FIELD OFFICE

- A. Make available for Engineer's use prior to start of the Work at the Site and to remain onsite for minimum of 30 days after final acceptance of the Work.
- B. Locate where directed by Engineer; level, block, tie down skirt, provide stairways, and relocated when necessary and approved. Construct on proper foundations and provide proper surface drainage and connections for utility services.
- C. Provide minimum 100 square feet of gravel or crushed rock base, minimum depth of 4 inches, at each entrance.
- D. Raise grade under field office, as necessary, to elevation adequate to avoid flooding.
- E. Provide sanitary facilities in compliance with State and local health authorities.
- F. Exterior door keys: Furnish two set(s) of keys.
- G. Local area network (LAN):
 - 1. Provide Ethernet network prewired in compliance with TIA-568-C.
 - 2. Ethernet wireless router shall be capable of a minimum of four connections.
 - 3. LAN shall be designed and installed by personnel experienced in similar LAN systems.

3.02 TEMPORARY UTILITIES

- A. Power:
 - 1. No electric power is available at the Site. Make arrangements to obtain and pay for electrical power used until final payment and acceptance by the Owner, unless otherwise recommended by the Engineer at Substantial Completion.

2. Cost of electric power shall be borne by the Contractor. No separate payment will be made.
- B. Lighting: provide temporary lighting to meet applicable safety requirements to allow erection, application, or installation of materials and equipment, and observation or inspection of the Work.
- C. Heating, Cooling, and Ventilating:
1. Provide as required to maintain adequate environmental conditions to facilitate progress of the Work, to meet specified minimum conditions for installation of materials, and to protect materials, equipment, and finishes from damage because of temperature or humidity. Costs for temporary heat shall be borne by the Contractor.
 2. Provide adequate forced air ventilation of enclosed areas to cure installed materials, to dispense humidity, and to prevent hazardous accumulations of dust, fumes, vapors, and gases.
 3. Pay costs of installation, maintenance, operation, removal, and fuel consumed.
 4. Provide portable unit heaters, complete with controls, oil- or gas-fired, and suitably vented to outside as required for protection of health and property.
 5. If permanent natural gas piping is used for temporary heating units, do not modify or re-route gas piping without approval of Gas Utility. Provide separate gas metering, as required by the Gas Utility.
- D. Water: No construction or potable water is available at the Site. Make arrangements for and bear the cost of providing water required for construction purposes and drinking by construction personnel during construction.
- E. Sanitary and Personnel Facilities: Provide and maintain facilities for Contractor's employees, Subcontractors, and other onsite employers' employees. Service, clean and maintain facilities and enclosures.
- F. Fire Protection: Furnish and maintain on Site adequate firefighting equipment capable of extinguishing incipient fires. Comply with applicable parts of NFPA 241.

3.03 PROTECTION OF WORK AND PROPERTY

- A. General:
1. Perform Work within right-of-way and easements in a systematic manner that minimizes inconvenience to property owners and the public.
 2. No residence or business shall be cut off from vehicular traffic for a period exceeding 4 hours, unless special arrangements have been made.

3. Maintain in continuous service existing oil and gas pipelines, underground power, telephone and communication cable, water mains, irrigation lines, sewers, poles and overhead power and other utilities encountered along the line of the Work, unless other arrangements satisfactory to the utility owners of have been made.
4. When completion of the Work requires temporary or permanent removal or relocation of existing utility, coordinate activities with utility owner and perform work to their satisfaction.
5. Protect, shore, brace, support, and maintain underground utility construction uncovered or otherwise affected by construction operations.
6. Keep fire hydrants and water control valves free from obstruction and available for use at all times.
7. In areas where Contractor's operations are adjacent to or near a utility such as gas, telephone, television, electric power, water, sewer, or irrigation system, and such operations may cause damage or inconvenience, suspend operations until arrangements necessary for protection have been made by the Contractor.
8. Notify property owners and utility offices that may be affected by construction operation at least 2 days in advance. Before exposing a utility, obtain utility owner's permission. Should service of utility be interrupted due to Contractor's activity, notify proper authority immediately. Cooperate with said authority in restoring service as promptly as possible and bear costs incurred.
9. Do not impair operation of existing sewer system. Prevent construction material and pavement, concrete, earth, volatile and corrosive wastes, and other debris from entering sewers, pump stations, and other utility structures.
10. Maintain original site drainage wherever possible.

B. Site Security:

1. Erect a temporary security fence for protection of the existing facilities, as specified in Section 32 31 13, Chain Link Fences and Gates. Maintain fence throughout the construction period. Obtain Engineer's written permission before removal of temporary security fencing.
2. Provide and maintain additional temporary security fences as necessary to protect the Work and Contractor-furnished products not yet installed.

C. Barricades and Lights:

1. Provide as required by the NYS DOT Manual of Uniform Traffic Control Devices and in sufficient quantity to safeguard public and the Work.
2. Provide as necessary to prevent unauthorized entry to construction areas and affected roads, streets, and alley ways, inside and outside of fenced area, and as required to ensure public safety and the safety of

the Contractor's employees, other employers' employees, and others who may be affected by the Work.

3. Provide to protect existing facilities and adjacent properties from potential damage.
4. Locate to enable access by facility operators and property owners.
5. Protect streets, roads, highways, and other public thoroughfares that are closed to traffic by effective barricades with acceptable warning signs.
6. Locate barricades at the nearest intersecting public thoroughfare on each side of the blocked section.
7. Illuminate barricades and obstructions with warning lights from sunset to sunrise.

D. Trees and Plantings:

1. Protect from damage and reserve trees, shrubs, and other plants outside limits of the Work and within limits of the Work, which are designated on Drawings to remain undisturbed.
 - a. Where practical, tunnel beneath trees when on or near line of trench.
 - b. Employ hand excavation as necessary to prevent tree injury.
 - c. Do not stockpile materials or permit traffic within drip lines of trees.
 - d. Provide and maintain temporary barricades around trees.
 - e. Water vegetation as necessary to maintain health.
 - f. Cover temporarily exposed roots with wet burlap and keep burlap moist until soil is replaced around roots.
 - g. No trees, except those specifically shown on Drawings to be removed shall be removed without written approval of the Engineer.
 - h. Dispose of removed trees in a legal manner offsite.
2. Balling and burlapping of trees indicated for replacement shall conform to recommended specifications set forth in the American Standards for Nursery Stock, published by the American Nursery and Landscape Association. Balls shall be firm and intact and made-balls will not be accepted. Handle ball and burlap trees by ball and not by top.
3. In the event of damage to bark, trunks, limbs, or roots of plants that are not designated for removal, treat damage by corrective pruning, bark tracing, application of a heavy coating of tree paint, and other accepted horticultural and tree surgery practices.
4. Replace each plant that dies as a result of construction activities.

E. Existing Structures:

1. Where Contractor contemplates removal of small structures such as mailboxes, signposts, and culverts that interfere with the Contractor's operations, obtain approval of property owner and Engineer.
2. Move mailboxes to temporary locations accessible to postal service.

3. Replace items removed in their original location and a condition equal to or better than original.
- F. Completed construction: Protect finished floors and concrete floors exposed as well as those covered with tile or other finish.
- G. Waterways: Keep ditches, culverts, and natural drainages continuously free of construction materials and debris.
- H. Dewatering:
1. Construct, maintain, and operate cofferdams, channels, flume drains, sumps, pumps, or other temporary diversion and protection works.
 2. Furnish materials required, install, maintain, and operate necessary pumping and other equipment for the environmentally safe removal and disposal of water from the various parts of the Work. Maintain foundations and parts of the Work free from water.
- I. Archeological Finds:
1. General: should finds of an archaeological or paleontological nature be made within the Site limits, immediately notify the Owner and Engineer and proceed in accordance with the General Conditions.
 2. Archaeological Finds: Evidence of human occupation or use of an area within Contract limits. Evidence may consist of skeletons, stone, or other utensils, or evidence of habitations or structures.
 3. Paleontological Finds: Evidence of prehistoric plant or animal life, such as skeletons, bones, fossils, or casts and other indications of such as pictographs.
 4. Owner may order the Work stopped in other areas if, in the Owner's opinion, find is more extensive than may appear from uncovered material.
 5. Protection of Finds:
 - a. Cover, fence, or otherwise protect finds until notice to resume the Work is given.
 - b. Cover finds with plastic film held in place by earth, rocks, or other weights placed outside the find. Should additional backfilling be necessary for safety or to prevent caving, place backfill material loosely over plastic film.
 - c. Sheet or shore as necessary to protect excavations underway. Place temporary fence to prevent unauthorized access.
 - d. Dewater finds made below water table as necessary to protect construction Work underway. Divert groundwater or surface runoff away from find by ditching or other acceptable means.
 6. Removal of Finds:
 - a. Finds are property of the Owner. Do not remove or disturb finds without Owner's written authorization.
 - b. Should Owner elect to have a find removed, provide equipment, labor, and material to permit safe removal of find

without damage. Provide transportation for delivery to individuals, institutions, or other places as Owner may find desirable, expedient, or required by law.

- J. Threatened and Endangered Species:
1. Take precautions necessary and prudent to protect native endangered and threatened flora and fauna.
 2. Notify the Engineer of construction activities that may threaten threatened and endangered species or their habitats.
 3. Engineer will mark areas known as habitats of threatened and endangered species prior to commencement of the Work.
 4. Additional areas will be marked by Engineer as other habitats of threatened and endangered species become known during construction.

3.04 TEMPORARY CONTROLS

- A. Air Pollution Control:
1. Minimize air pollution from construction operations.
 2. Burning of waste materials, rubbish, or other debris will not be allowed onsite.
 3. Conduct operations of dumping rock and of carrying rock away in trucks to cause a minimum of dust. Give unpaved streets, roads, detour, or haul roads used in construction area a dust-preventative treatment or periodically water to prevent dust. Strictly adhere to applicable environmental regulations for dust prevention.
 4. Provide and maintain temporary dust-tight partitions, bulkheads, or other protective devices during construction to permit normal operation of existing facilities. Construct partitions of plywood, insulating board, plastic sheets, or similar material. Construct partitions in such a manner that dust and dirt from demolition and cutting will not enter other parts of existing building or facilities. Remove temporary partitions as soon as need no longer exists.
- B. Noise control:
1. Provide acoustical barriers so noise emanating from tools or equipment will not exceed legal noise levels.
 2. Noise Control Plan: Propose plan to mitigate construction noise and comply with noise control ordinances, including method of construction, equipment to be used, and acoustical treatments.
- C. Water Pollution Control:
1. Divert sanitary sewage and non-storm waste flow interfering with construction and requiring diversion to sanitary sewers. Do not cause or permit action to occur which would cause an overflow to existing waterway.

2. Prior to commencing excavation and construction, obtain Owner's agreement with detailed plans showing procedures intended to manage and dispose of sewage, groundwater, and dewatering pump discharges.
 3. Comply with Section 01 57 13, Temporary Erosion and Sediment Control, for storm water flow and surface runoff.
 4. Do not dispose of volatile wastes such as mineral spirits, oil, chemicals, or paint thinner in storm or sanitary drains. Disposal of wastes into streams or waterways is prohibited. Provide acceptable containers for collection and disposal of waste materials, debris, and rubbish.
- D. Erosion, Sediment, and Flood Control: Provide, maintain, and operate temporary facilities as specified in Section 01 57 13, Temporary Erosion and Sediment Control, to control erosion and sediment releases, and to protect the Work and existing facilities from flooding during construction period.
- E. Project Signage:
1. Location of signs shall be as shown or as directed by the Engineer.
 2. Maintain signs so they are clean, legible, and upright. Keep grass and weeds cut away from signs.
 3. Repair and repaint damaged signs. Relocate signs as required by progress of Work.
 4. Remove signs when Project is completed or when directed by the Engineer.
 5. Signs to be relocated shall be removed, cleaned, and stored if not immediately reinstalled.

3.05 STORAGE YARDS AND BUILDINGS

- A. Coordinate requirements with Section 01 61 00, Common Product Requirements.
- B. Temporary Storage Yards: Construct temporary storage yards for storage of products that are not subject to damage by weather conditions.
- C. Temporary Storage Buildings:
1. Provide environmental control systems that meet recommendations of manufacturers of equipment and material stored.
 2. Arrange or partition to provide security of contents and ready access for inspection and inventory.
 3. Store combustible materials (paints, solvents, fuels) in well-ventilated and remote building meeting safety standards.

3.06 ACCESS ROADS

- A. Construct access roads as shown and within easements, rights-of-way, or Project limits. Alignments for new routes shall be approved by the Engineer.

- B. Maintain drainage ways. Install and maintain culverts to allow water to flow beneath access roads. Provide corrosion-resistant culvert pipe of adequate strength to resist construction loads.
- C. Provide gravel, crushed rock, or other stabilization material to permit access by all motor vehicles at all times.
- D. Maintain road grade and crown to eliminate potholes, rutting, and other irregularities that restrict access.
- E. Coordinate with Engineer detours and other operations affecting traffic and access. Provide at least 72 hours' notice to Engineer of operations that will alter site access.
- F. Where access road crosses existing fences, install and maintain gates. Gates and gate posts shall comply with Section 32 31 26, Chain Link Fences and Gates.
- G. Upon completion of construction, restore ground surface disturbed by access road construction to grades as shown on the Drawings.

3.07 PARKING AREAS

- A. Control vehicular parking to preclude interference with public traffic or parking, access by emergency vehicles, Owner's operations, or construction operations.
- B. Provide parking facilities for personnel working on the Project. No employee or equipment parking will be permitted on Owner's existing paved areas, except as specifically designated for Contractor's use.
- C. Use area designated on Drawings or area as designated by the Owner for parking of Contractor's and Contractor's employees' vehicles.

3.08 VEHICULAR TRAFFIC

- A. Comply with Laws and Regulations regarding closing or restricting use of public streets or highways. No public or private road shall be closed, except by written permission of proper authority. Ensure the least possible obstruction to traffic and normal commercial pursuits.
- B. Conduct the Work to interfere as little as possible with public travel, whether vehicular or pedestrian.
- C. Whenever it is necessary to cross, close, or obstruct roads, driveways, and walks, whether public or private, provide and maintain suitable and safe bridges, detours, or other temporary expedients from accommodation of public and private travel.

- D. Road Closures: Maintain satisfactory means of exit for persons residing or having occasion to transact business along route of the Work. If it is necessary to close off roadway or alley providing sole vehicular access to property for periods greater than 2 hours, provide written notice to each owner so affected 3 days prior to such closure. In such cases, closing of up to 4 hours may be allowed. Closures of up to 10 hours may be allowed if a week's written notice is given and undue hardship does not result.
- E. Maintenance of Traffic is not required if Contractor obtains written permission from Owner and tenant of private property, or from authority having jurisdiction over public property involved, to obstruct traffic at designated point.
- F. In making street crossing, do not block more than one-half of the street at a time. Whenever possible, widen shoulder on opposite side to facilitate traffic flow. Provide temporary surfacing on shoulders as necessary.
- G. Maintain top of backfilled trenches before they are paved, to allow normal vehicular traffic to pass over. Provide temporary access driveways where required. Cleanup operations shall follow immediately behind backfilling.
- H. When flaggers and guards are required by regulation or when deemed necessary for safety, furnish them with approved orange wearing apparel and other regulation traffic control devices.
- I. Provide snow removal to facilitate normal vehicular traffic on public or private roads affected by construction. Perform snow removal promptly and efficiently by means of suitable equipment whenever necessary for safety, and as may be directed by proper authority.
- J. Notify fire department and police department before closing streets or portions thereof. Notify said departments when streets are again passable for emergency vehicles. Do not block off emergency vehicle access to consecutive arterial crossings or dead-end streets, in excess of 300 linear feet, without written permission from the fire department. Conduct operations with the least interference to fire equipment access, and at no time prevent such access. Furnish Contractor's night emergency telephone numbers to police department.
- K. Temporary Bridges:
 - 1. Construct temporary bridges at points where maintenance of traffic across pipeline construction is necessary.
 - 2. Make bridges over public streets, roads, and highways acceptable to authority having jurisdiction.
 - 3. Bridges erected over private roads and driveways shall be adequate for service to which they are subjected.
 - 4. Provide substantial guide rails and suitably protected approaches.

5. Provide footbridges not less than 4 feet wide with handrails and uprights of dressed lumber.
6. Maintain bridges in place as long as conditions of the Work require their use for safety of public, except that when necessary for proper prosecution of the Work in immediate vicinity of the bridge. Bridge may be relocated or temporarily removed for such periods as Engineer may permit.

3.09 CLEANING DURING CONSTRUCTION

- A. In accordance with the General Conditions, as may be specified in other specification sections, and as required herein.
- B. Wet down exterior surfaces prior to sweeping to prevent blowing of dust and debris. At least weekly, sweep floors (basins, tunnels, platforms, walkways, roof surfaces), and pick up and dispose of debris.
- C. Provide approved containers for collection and disposal of waste materials, debris, and rubbish off-site.
- D. At least weekly, brush sweep entry drive, roadways and other streets and walkways affected by the Work and where adjacent to the Work.

+ + END OF SECTION + +

SECTION 01 57 13

TEMPORARY EROSION AND SEDIMENT CONTROL

PART 1 - GENERAL

1.01 SUMMARY

- A. Scope:
 - 1. This section covers work necessary for stabilization of soil to prevent erosion during and after construction and land-disturbing activities.
 - 2. The Work shall include the furnishing of all labor, material, tools, and equipment to perform the Work and services necessary as herein specified and as indicated on the Drawings.
 - 3. This shall include installation, maintenance, and final removal of all temporary soil erosion and sediment control measures.
- B. The minimum areas requiring soil erosion and sediment control measures are indicated on the Drawings.
- C. The Owner or Engineer reserves the right to modify the use, location, and quantities of soil erosion and sediment control, based on the Contractor's activities.
- D. See additional information noted on the Drawings.

1.02 GENERAL

- A. Refer to General Conditions and Division 01, General Requirements, which contain information and requirements that apply to the Work specified herein and are mandatory requirements of for this Project.
- B. All activities shall conform to the latest edition of the New York State Storm Water Management Design Manual, the site-specific Storm Water Pollution Prevention Plan (SWPPP), the SPDES General Permit GP-0-20-001, and the Drawings. In the event of conflicting requirements, the more stringent requirements shall apply.
- C. Soil erosion stabilization and sedimentation control consist of the following elements:
 - 1. Maintenance of existing permanent or temporary storm drainage piping and channel systems, as necessary.
 - 2. Construction of new permanent and temporary storm drainage piping and channel systems, as necessary.
 - 3. Construction of temporary erosion control facilities such as silt fences, check dams, etc.
 - 4. Topsoil and seeding:

- a. Placement and maintenance of Temporary Seeding on all areas disturbed by construction.
 - b. Placement of permanent topsoil, fertilizer, and seed, etc. in all areas not occupied by structures or pavement, unless shown otherwise.
- 5. Soil Stabilization Seeding: Placement of fertilizer, seed, etc. in areas as specified hereinafter.
- D. The Contractor shall be responsible for phasing and coordinating Work in areas allocated for respective use including proposed stockpile areas to restrict sediment transport. This will include installation of all temporary erosion and sediment control devices, ditches, or other facilities.
- E. The areas set aside for the Contractor's use during the Project may be temporarily developed to provide satisfactory working, staging, and administrative areas for its exclusive use. Preparation of these areas shall be in accordance with other requirements contained within these Specifications and shall be done in a manner to control all sediment transport away from the area.
- F. Sediment transport and erosion from working stockpiles shall be controlled and restricted from moving beyond the immediate stockpile area by installation of silt fence or fiber rolls and construction of temporary toe-of-slope ditches, as necessary. The Contractor shall keep these temporary facilities in operational condition by regular cleaning, regrading, and maintenance. Stockpiles remaining in place longer than 14 calendar days shall be considered permanent stockpiles for purposes of erosion and sediment control.
- G. All permanent stockpiles shall be seeded with soil stabilization seed and protected by permanent 2-foot-minimum ditches, completely surrounding stockpiles and located within 10 feet of the toes of stockpile slopes.
- H. The Contractor shall maintain all elements of the soil erosion and sediment control systems and facilities to be constructed during this Project for the duration of activity on the Project. Formal inspections made jointly by the Contractor and the Engineer shall be conducted every 2 weeks to evaluate the Contractor's conformance. These inspections shall be in addition to the daily inspections performed by the Contractor and the weekly inspections performed by the Engineer.
- I. All silt traps shall be cleaned of collected sediment after every storm or as determined from weekly inspections. Cleaning shall be done in a manner that will not direct the sediment into the storm drain piping system. Removed sediment shall be taken to an area selected by the Engineer where it can be cleaned of sticks and debris, then allowed to dry. Final sediment and debris disposal shall be on-site, as directed by the Engineer.

- J. Replacement or repair of failed or overloaded silt fences, check dams, or other temporary erosion control devices shall be accomplished by the Contractor within 2 days after receiving written notice from the Engineer.
- K. Unpaved earth drainage ditches shall be re-graded as needed to maintain original grade and remove sediment buildup. If a ditch becomes difficult to maintain, the Contractor shall cooperate with the Engineer and install additional erosion control devices such as check dams, rolled erosion control product, or silt fences, as directed by the Engineer.
- L. If the Contractor has not complied with any of the above maintenance efforts to the satisfaction of the Engineer within 2 working days after receiving written notification, the Owner shall have sufficient cause to engage others to perform any needed maintenance or cleanup, including removal of accumulated sediment at constructed erosion control facilities, and deduct from the Contractor's monthly partial payment the costs for such efforts, plus a \$500 administrative fee.

1.03 SUBMITTALS

- A. Comply with Section 01 33 00, Submittal Procedures.
- B. In addition, the Contractor shall provide the following specific information:
 - 1. Certificates of inspection of seed by State or Federal authorities and copies of delivery invoices or other proof of quantities of fertilizer.
 - 2. Manufacturer's certificate of compliance attesting that the geotextile meets the requirements of these Specifications.

PART 2 - PRODUCTS

2.01 PERMANENT SEED

- A. Seed shall be as specified under Section 32 92 00, Turfs and Grasses.

2.02 SOIL STABILIZATION AND TEMPORARY SEED

- A. Summer seed mix shall be Annual or Perennial Ryegrass.
- B. Winter seed mix shall be Certified Aroostook Winter Rye (cereal rye).

2.03 TOPSOIL

- A. Topsoil shall be as specified under Section 32 92 00, Turfs and Grasses.

2.04 FERTILIZER

- A. Fertilizer shall be as specified under Section 32 92 00, Turfs and Grasses.

2.05 LIME

- A. Lime shall be as specified under Section 32 92 00, Turfs and Grasses.

2.06 STRAW MULCH

- A. Threshed straw of oats, wheat, barley, or rye, free from seed of noxious weeds, or clean salt hay applied at 2 tons per acre.

2.07 EROSION CONTROL BLANKETS

- A. The erosion control blanket shall be a machine-produced mat of 70% agricultural straw and 30% coconut fiber matrix.
- B. The blanket shall be of consistent thickness with the straw and coconut fiber evenly distributed over the entire area of the mat.
- C. The blanket shall be covered on the top side with heavyweight photodegradable netting having ultraviolet additives to delay breakdown and an approximately 0.63-inch x 0.63-inch mesh.
- D. The bottom side shall be covered with a lightweight photodegradable polypropylene netting having an approximate 1/2-inch x 1/2-inch mesh. The blanket shall be sewn together on 1.5-inch centers with degradable thread.
- E. The erosion control blankets shall be SC150 as manufactured by North American Green, or equivalent.
- F. Material content:
 - 1. Matrix: 70% Straw Fiber (0.35 lbs/sy).
 - 2. 30% Coconut Fiber (0.15 lb/sy)
 - 3. Netting Top: Heavyweight photodegradable with UV additives (3.0 lbs/1,000 sf).
 - 4. Bottom: Lightweight photodegradable (1.50 lbs/1,000 sf).
 - 5. Thread: Degradable.
- G. The functional longevity of the erosion control blanket shall be approximately 24 months.
- H. The blankets shall be manufactured with a colored line or thread stitched along both outer edges (approximately 2 – 5 inches from the edge) to ensure proper material overlapping.
- I. All erosion control blankets shall be properly stored by the Contractor at the site per manufacturer's recommendations.
- J. Blankets damaged during storage shall be replaced at the Contractor's expense.

2.08 COMPOST FILTER SOCKS

- A. Compost Filter Socks: Filtrexx SiltSoxx, FilterSoxx, Inlet Protection, or approved equal. The compost filter socks shall meet the following parameters and be installed per the following specifications:
 - 1. Stakes: 2"x2"x36" – Minimum 12" embedment and minimum 3" exposed above device.

2.09 STABILIZED CONSTRUCTION ACCESS

- A. Stabilized Construction Entrance: Shall have a minimum length of 50 feet and a minimum width of 24 feet (two-way traffic) or 12 feet (one-way traffic).
 - 1. Aggregate: Matrix of 1-4 inch stone or reclaimed or recycled concrete equivalent.
 - 2. Thickness: Not less than 6 inches.
 - 3. Width: 12 feet (one-way traffic), 24 feet (two-way traffic).
 - 4. Length: 50 feet minimum.
 - 5. Geotextile: Trevira Spunbound 1115, Mirafi 100X, Typar 3401, or equivalent with the following minimum requirements:
 - a. Grab tensile strength: 200 lbs. Test method: ASTM D1682.
 - b. Elongation at Failure: 50%. Test method: ASTM D1682.
 - c. Mullen Burst Strength: 190 psi. Test method: ASTM D3786.
 - d. Puncture Strength: 40 lbs. Test method: ASTM D751 (modified).
 - e. Equivalent Opening Size: 40-80. Test method: US Standard Sieve, CW-02215.

PART 3 - EXECUTION

3.01 GENERAL

- A. Install erosion and sediment control measures and maintain in accordance with the Drawings, General Permit, and the SWPPP.
- B. Provide and maintain Temporary Seeding at all times.

3.02 SEEDING

- A. General:
 - 1. The Contractor shall give at least 3 days' notice to the Engineer prior to seeding to allow the Owner to inspect the prepared areas. The Contractor shall rework all areas not approved for seeding to the Owner's satisfaction.
 - 2. The Contractor shall keep the Engineer advised of schedule of operations.

3. Seed shall be clean, delivered in original, unopened packages and bearing an analysis of the contents, guaranteed 95 percent pure with minimum germination rate of 85 percent.
- B. Schedules:
1. Seeding shall be performed in accordance with the following schedule:
 - a. Summer Seeding: From March 15 to June 15, and September 1 to October 15.
 - b. Winter Seeding: All other times of year, except when weather conditions prohibit further construction operations as determined by the Engineer.
- C. Soil Stabilization and Temporary Seeding:
1. Soil stabilization seeding shall consist of the application of the following materials in quantities as further described herein for stockpiles and disturbed areas left inactive for more than 14 days:
 - a. Lime.
 - b. Fertilizer.
 - c. Temporary seed mix at 30 pounds per acre for summer seed mix or 100 pounds per acre for winter seed mix.
 - d. Mulch.
 - e. Maintenance.
 2. Hydroseeding will be permitted as an alternative method of applying seed and associated soil conditioning agents described above. Submit hydroseeding application plan and methods prior to commencing work.
 3. Temporary Seeding shall be placed and maintained over all disturbed areas prior to Permanent Seeding. Maintain Temporary Seeding until such time as areas are approved for Permanent Seeding. As a minimum, maintenance shall include:
 - a. Repair and re-seeding bare areas or re-disturbed areas.
 - b. Mowing for stands of grass or weeds exceeding 6 inches in height.
- D. Topsoil and Permanent Seeding:
1. Comply with Section 32 92 00, Turf and Grasses.

+ + END OF SECTION + +

SECTION 01 61 00

COMMON PRODUCT REQUIREMENTS

PART 1 - GENERAL

1.01 DEFINITIONS

- A. Products:
 - 1. New items for incorporation into the Work, whether purchased by Contractor for the Project, or taken from previously purchased stock, and may also include existing materials or components required for reuse.
 - 2. Includes the terms material, equipment, machinery, components, subsystem, system, hardware, software and terms of similar intent and is not intended to change meaning of such other terms used in the Contract Documents, as those terms are self-explanatory and have well recognized meanings in the construction industry.
 - 3. Items identified by manufacturer's product name, including make or model designation, indicated in manufacturer's published product literature, that is current as of the date of the Contract Documents.

1.02 DESIGN REQUIREMENTS

- A. Where Contractor design is specified, design of installation, systems, equipment and components, including support and anchorage shall be in accordance with the provision of the latest edition of the New York State Uniform Fire Prevention and Building Code (Uniform Code) and applicable local amendments as enforced by the City of Plattsburgh Building Department.

1.03 ENVIRONMENTAL REQUIREMENTS

- A. Altitude: Provide materials and equipment suitable for installation and operation under rated conditions nominally at 185 feet above sea level.

1.04 PREPARATION FOR SHIPMENT

- A. When practical, factory-assemble products. Mark or tag separate parts and assemblies to facilitate field-assembly. Cover machined and unpainted parts that may be damaged by the elements with strippable protective coating.
- B. Package products to facilitate handling and protect from damage during shipping, handling, and storage. Mark or tag outside of each package or crate to indicate its purchase order number, bill of lading number, contents by name, name of Project or Contractor, equipment number, and approximate

weight. Include complete packing list and bill of materials with each shipment.

- C. Extra Materials, Special Tools, Test Equipment and Expendables:
 - 1. Furnish as required by individual Specification sections.
 - 2. Schedule:
 - a. Ensure that shipment and delivery occur concurrently with shipment of associated equipment.
 - b. Transfer to Owner shall occur immediately subsequent to Contractor's acceptance of equipment from Supplier.
 - 3. Packaging and Shipment:
 - a. Package and ship extra materials and special tools to avoid damage during long-term storage in original containers insofar as possible, or in appropriately-sized hinged cover, wood, plastic or metal box.
 - b. Prominently display on each package, the following:
 - 1) Manufacturer's part nomenclature and number, consistent with Operation and Maintenance Data identification system.
 - 2) Applicable equipment description.
 - 3) Quantity of parts in package.
 - 4) Equipment manufacturer.
 - 5) Supplier if different from equipment manufacturer.
- D. Equipment Delivery: [Respective Contractor] [Contractor] shall coordinate delivery schedules with respective Suppliers.
- E. Factory Test Results: Reviewed and accepted by Engineer before product shipment as required in individual Specification sections.

1.05 DELIVERY AND INSPECTION

- A. Deliver products in accordance with accepted current Progress Schedule and coordinate to avoid conflict with the Work and conditions at the Site. Deliver anchor bolts and templates sufficiently early to permit setting prior to placement of structural concrete.
- B. Deliver products in undamaged condition, in manufacturer's original container or packaging, with identifying labels intact and legible. Include on label, date of manufacture and shelf life, where applicable.
- C. Unload products in accordance with manufacturer's instructions for unloading or as specified. Record receipt of products at the Site. Promptly inspect for completeness and evidence of damage during shipment.
- D. Remove damaged products from Site and expedite deliver of identical new undamaged products, and remedy incomplete or lost products to provide that specified, so as not to delay progress of the Work.

1.06 HANDLING, STORAGE, AND PROTECTION

- A. Handle and store products in accordance with manufacturer's written instructions and in a manner to prevent damage. Provide manufacturer's recommended maintenance during storage, installation, and until products are accepted for use by Owner.
- B. Manufacturer's instructions for material requiring special handling, storage, or protection shall be provided prior to delivery of material.
- C. Arrange storage in a manner to provide easy access for inspection. Make periodic inspections of stored products to assure that products are maintained under specified conditions, and free from damage or deterioration. Keep running account of products in storage to facilitate inspection and to estimate progress payments for products delivered, but not installed in the Work.
- D. Store electrical, instrumentation, and control products, and equipment with bearings in weather-tight structures maintained above 60 degrees F, and relative humidity at least five degrees above the dew point. Protect electrical, instrumentation, and control products, and insulate against moisture, water and dust damage. Connect and operate continuously space heaters furnished in electrical equipment.
- E. Store fabricated products above ground on blocking or skids, and prevent soiling or staining. Store loose granular materials in well-drained area on solid surface to prevent mixing with foreign matter. Cover products that are subject to deterioration with impervious sheet coverings; provide adequate ventilation to avoid condensation.
- F. Store finished products that are ready for installation in dry and well-ventilated areas. Do not subject to extreme changes in temperature or humidity.
- G. After installation, provide coverings to protect products from damage due to traffic and construction operations. Remove coverings when no longer needed.
- H. Provide [bonded] offsite storage and protection when storage and protection cannot be provided on Site.
- I. Hazardous Materials: Prevent contamination of personnel, storage area, and Site. Meet requirements of product specification, codes and manufacturer's instructions.

1.07 GUARANTEES

- A. Manufacturer Warranties during Correction Period:

1. Where indicated in the individual Specification sections, provide a one year manufacturer warranty made out in the name of the Owner, coinciding with the correction period defined in General Conditions Article 15.08 for the particular piece of equipment and/or equipment System.
 2. One copy of each manufacturer warranty shall be provided to both Owner and Engineer within 30 days of successful completion of Startup.
 3. All requirements of the of the correction period defined in General Conditions Article 15.08 shall apply to the manufacturer's warranty and the equipment Supplier obligations shall be the same as Contractor obligations defined in General Conditions Article 15.08 for the particular piece of equipment and/or equipment System covered by the warranty.
- B. Special Guarantees: Provide both Owner and Engineer one copy of special guarantees required in individual Specification sections. Special guarantees shall be made out in the Owner's name.

PART 2 - PRODUCTS

2.01 GENERAL

- A. Provide manufacturer's standard materials suitable for service conditions, unless otherwise specified in the individual Specification sections.
- B. Where the Specifications include a named manufacturer, with or without model number, and also include performance requirements, named manufacturer's products must meet the performance requirements.
- C. Like items of products furnished and installed in the Work shall be end products of one manufacturer and of the same series or family of models to achieve standardization for appearance, operation and maintenance, spare parts and replacement, manufacturer's services, and implement same or similar process instrumentation and control functions in same or similar manner.
- D. Equipment, Components, Systems, and Subsystems: Design and manufacture with due regard for health and safety of operation, maintenance, and accessibility, durability of parts, and shall comply with applicable OSHA, State and local health and safety regulations.
- E. Regulatory Requirements: Coating materials shall meet Federal, State, and local requirements limiting the emission of volatile organic compounds and for worker exposure.

- F. Safety Guards: Provide for all belt and chain drives, fan blades, couplings, and other moving or rotary parts. Cover rotating part on all sides. Design for easy installation and removal. Use 16-gauge or heavier galvanized steel or galvanized expanded steel mesh. Provide galvanized steel accessories and supports, including bolts. For outdoor applications, prevent entrance of rain and dripping water.
- G. Authority Having Jurisdiction (AHJ):
1. The Authority Having Jurisdiction (AHJ) for this project is the City of Plattsburgh Building Department, including the City Engineer, Planning and Zoning Department, and other relevant municipal agencies with jurisdiction over public infrastructure, landscaping, and electrical work.
 2. Provide the Work in accordance with NFPA 70 – National Electrical Code (NEC), latest adopted edition by New York State. Where required by the AHJ, materials and equipment shall be labeled or listed by a Nationally Recognized Testing Laboratory (NRTL) acceptable to the AHJ to provide a basis for code compliance and approval.
 3. All electrical components, including uplights and associated wiring, shall conform to applicable UL standards and bear the appropriate UL listing mark, where such standards exist.
 4. Coordinate site work—including pavements, curbs, and planting areas—with utility locations and code-compliant electrical installations, particularly for any in-grade or exposed lighting fixtures.
- H. Equipment Finish:
1. Provide manufacturer's standard finish and color, except where specified color is indicated. Equipment scheduled to be field-painted shall be shop-primed with a primer compatible with the specified finish coating system.
 2. If manufacturer has no standard color, provide equipment with finish as approved by Owner.
- I. Special Tools and Accessories: Furnish to Owner, prior to placing in service, all accessories required to place each item of equipment in full operation. These accessory items include, but are not limited to, adequate oil and grease (as required for first lubrication of equipment after field testing), light bulbs, fuses, hydrant wrenches, valve keys, hand wheels, chain operators, special tools, and other spare parts as required for maintenance.
- J. Lubricant: Provide initial lubricant recommended by equipment manufacturer in sufficient quantity to fill lubricant reservoirs and to replace consumption during testing, Startup, and operation until Substantial Completion or partial occupancy of portions of the Work.

2.02 FABRICATION AND MANUFACTURE

- A. General:
 - 1. Manufacture parts to U.S.A. standard sizes and gauges.
 - 2. Two or more items of the same type shall be identical, by the same manufacturer, and interchangeable.
 - 3. Design structural members for anticipated shock and vibratory loads.
 - 4. Use 1/4-inch minimum thickness for steel that will be submerged, wholly or partially, during normal operation.
 - 5. Modify standard products as necessary to meet performance specifications.
- B. Lubrication System:
 - 1. Require no more than weekly attention during continuous operation.
 - 2. Convenient and accessible; oil drains with bronze or stainless steel valves and fill plugs, easily accessible from the normal operating area or platform. Locate drains to allow convenient collection of oil during oil changes without removing equipment from its installed position.
 - 3. Provide constant-level oilers or oil level indicators for oil lubrication systems.
 - 4. For grease type bearings which are not easily accessible, provide and install stainless steel tubing, protect and extend tubing to convenient location with suitable grease fitting.

2.03 SOURCE QUALITY CONTROL

- A. Provide documented proof of testing as required by Specifications. Submit certified test results or other evidence of compliance for review by the Engineer. Notify the Engineer not less than 14 days prior to any scheduled testing, if applicable.
- B. Calibration Instruments: Bear the seal of a reputable laboratory certifying instrument has been calibrated within the previous 12 months to a standard endorsed by the National Institute of Standards and Technology (NIST).
- C. Factory Tests:
 - a. Perform in accordance with accepted test procedures as supplemented in the Contract Documents.
 - b. Document successful completion.

PART 3 - EXECUTION

3.01 INSPECTION

- A. Inspect materials and equipment for signs of pitting, rust decay, or other deleterious effects of storage.

- B. Do not install material or equipment showing such effects.
- C. Remove damaged material or equipment from the Site and expedite delivery of identical new material or equipment.
- D. Delays to the Work resulting from material or equipment damage that necessitates procurement of new products will be considered delay within the Contractor's control.

3.02 INSTALLATION

- A. Drawings show general locations of equipment, devices, and raceway, unless specifically dimensioned.
- B. No shimming between machined surfaces is allowed.
- C. Install the electrical components in accordance with National Electrical Contractors Association (NECA) National Electrical Installation Standards.
- D. Repaint painted surfaces that are damaged prior to equipment acceptance.
- E. Do not cut or notch any structural member or building surface without specific approval of Engineer.
- F. Handle, install, connect, clean, condition, and adjust products in accordance with manufacturer's instructions, and as may be specified. Retain a copy of manufacturers' instructions at the Site, available for review at all times.

3.03 FIELD FINISHING

- A. In accordance with Section 09 90 00, Painting.

3.04 ADJUSTMENT AND CLEANING

- A. Perform required adjustments, tests, operational checks, and other startup activities.

3.05 LUBRICANTS

- A. Fill lubricant reservoirs and replace consumption during testing, Startup, and operation prior to delivery to Owner.

+ + END OF SECTION + +

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SECTION 01 77 00

CLOSEOUT PROCEDURES

PART 1 - GENERAL

1.01 SUBMITTALS

- A. Informational Submittals:
 - 1. Submit prior to application for payment:
 - a. Record documents: as required in the General Conditions, and as specified herein.
 - b. Approved shop drawings and samples: As required in the General Conditions.
 - c. Special bonds, Special Guarantees, and Service Agreements.
 - d. Consent of Surety to Final Payment: as required in the General Conditions.
 - e. Releases or waivers of liens and claims: As required in the General Conditions.
 - f. Releases from Agreements.
 - g. Final Application for Payment: Submit in accordance with Section 01 29 00, Payment Procedures.
 - h. Extra materials: as required by the individual specification sections.

1.02 RECORD DOCUMENTS

- A. Quality assurance:
 - 1. Furnish qualified and experienced person, whose duty and responsibility shall be to maintain record documents.
 - 2. Accuracy of Records:
 - a. Coordinate changes within record documents, making legible and accurate entries on each sheet of Drawings and other documents where such entry is required to show change.
 - b. Purpose of Project Record documents is to document factual information regarding aspects of the Work, both concealed and visible, to enable future modification of the Work to proceed without lengthy and expensive Site measurement, investigation, and examination.
 - 3. Make entries within 24 hours after receipt of information that a change in the Work has occurred.
 - 4. Prior to submitting each request for progress payment, request Engineer's review and approval of current status of record documents. Failure to properly maintain, update, and submit record documents may result in a deferral by Engineer to recommend whole or any part of Contractor's application for Payment, either partial or final.

1.03 RELEASES FROM AGREEMENTS

- A. Furnish Owner written releases from property owners or public agencies where side agreements or special easements have been made, or where Contractor's operations have not been kept within the Owner's construction right-of-way.
- B. In the event the Contractor is unable to secure written releases:
 - 1. Inform the Owner of the reasons.
 - 2. Owner or its representatives will examine the Site, and Owner will direct Contractor to complete the Work that may be necessary to satisfy terms of side agreement or special easement.
 - 3. Should the Contractor refuse to perform this Work, the Owner reserves the right to complete the Work under separate contract and deduct cost of same from the Contract Price, or require the Contractor to furnish a satisfactory bond in a sum to cover legal Claims for damages.
 - 4. When Owner is satisfied that the Work has been completed in accordance with the Contract Documents and terms of side agreement or special easement, right is reserved to waive requirement for written release if:
 - a. Contractor's failure to obtain such statement is due to grantor's refusal to sign and this refusal is not based on any legitimate claim that the Contractor has failed to fulfill terms of the side agreement or special easement, or
 - b. The Contractor is unable to contact or has had undue hardship in contacting the Grantor.

PART 2 - PRODUCTS

(Not used)

PART 3 - EXECUTION

3.01 MAINTENANCE OF RECORD DOCUMENTS

- A. General:
 - 1. Revise approved shop drawings to reflect as-built conditions, including control logic, interlocks, fail-safes, etc.
 - 2. Record information concurrently with construction progress and within 24 hours after receipt of information that a change has occurred. Do not cover or conceal Work until required information is recorded.
- B. Preservation:
 - 1. Maintain documents in a clean, dry, legible condition and in good order. Do not use record documents for construction purposes.

2. Make documents and Samples available at all times for inspection and review by the Engineer.
- C. Making Entries on Drawings:
1. Date entries.
 2. Call attention to entry by revision “cloud” drawn around area or areas affected.
 3. Legibly mark to record actual changes made during construction, including, but not limited to:
 - a. Depths of various elements of foundation in relation to finished first floor data if not shown or where depth differs from that shown.
 - b. Horizontal and vertical locations of existing and new underground facilities and appurtenances, and other underground structures, equipment, or Work. Reference to at least two measurements to permanent surface improvements.
 - c. Locate existing facilities, piping, equipment, and items critical to the interface between existing physical conditions or construction and new construction.
 - d. Changes made by addendum, field order, work change directive, change order, and Engineer’s written interpretation and clarification using consistent symbols for each and showing appropriate document tracking number.
 4. Dimensions on Schematic Layouts: Show on record drawings by dimension, the centerline of each run of items such as are described in previous subparagraphs above.
 - a. Clearly identify the item by accurate note such as “cast iron drain”, “galvanized water”, etc.
 - b. Show, by symbol or note, vertical location of item (“under slab”, “in ceiling plenum”, etc).
 - c. Make identification so descriptive that it may be related reliably to specifications.

3.02 FINAL CLEANING

- A. At completion of the Work or of a part thereof and immediately prior to Contractor’s request for certificate of Substantial Completion, or if no certificate is issued, immediately prior to Contractor’s notice of completion, clean entire Site or parts thereof, as applicable.
- B. Leave the Work and adjacent areas affected in a cleaned condition satisfactory to the Owner.
- C. Remove grease, dirt, dust paint or plaster spatter, stains, labels, fingerprints, and other foreign materials from exposed surfaces.

- D. Repair, patch, and touch up marred surfaces to specified finish and match adjacent surfaces.
- E. Broom clean exterior paved driveways and parking areas.
- F. Hose clean sidewalks, loading areas, and others contiguous with principal structures.
- G. Rake clean all other surfaces.
- H. Remove snow and ice from walkways.
- I. Leave water courses, gutters, and ditches open and clean.
- J. Use only cleaning materials recommended by manufacturer of surfaces to be cleaned.

+ + END OF SECTION + +

SECTION 03 30 53

MISCELLANEOUS CAST-IN-PLACE CONCRETE

PART 1 - GENERAL

1.01 SUMMARY

- A. Section includes material and performance requirements for miscellaneous cast-in-place concrete for structural concrete, fill concrete, and grout for:
 - 1. Minor structures.
 - 2. Concrete pipe supports.
 - 3. Concrete thrust blocks.
 - 4. Grout for structural steel, equipment bases, and incidental Work.
 - 5. Fill concrete and benches within civil structures.
- B. Concrete for paving, curbs, gutters, and sidewalks is specified elsewhere.
- C. Related Work specified elsewhere:
 - 1. Section 32 11 13, Concrete Paving.

1.02 REFERENCE STANDARDS

- A. The following is a list of standards that may be referenced in this Section:
 - 1. ASTM International (ASTM):
 - a. A184, Standard Specification for Fabricated Deformed Steel Bar Mats for Concrete Reinforcement.
 - b. A185, Standard Specification for Steel Welded Wire Fabric, Plain, for Concrete Reinforcement.
 - c. A497, Standard Specification for Steel Welded Wire Fabric, Deformed, for Concrete Reinforcement.
 - d. A615, Standard Specification for Deformed and Plain Billet-Steel Bars for Concrete Reinforcement.
 - e. A706, Standard Specification for Low-Alloy Steel Deformed and Plain Bars for Concrete Reinforcement.
 - f. A767, Standard Specification for Zinc-Coated (Galvanized) Steel Bars for Concrete Reinforcement.
 - g. A775, Standard Specification for Epoxy-Coated Steel Reinforcing Bars.
 - h. A884, Standard Specification for Epoxy-Coated Steel Wire and Welded Wire Reinforcement.
 - i. A934, Standard Specification for Epoxy-Coated Prefabricated Steel Reinforcing Bars.
 - j. C31, Standard Practice for Making and Curing Concrete Test Specimens in the Field.
 - k. C33, Standard Specification for Concrete Aggregates.
 - l. C39, Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens.
 - m. C42, Standard Test Method for Obtaining and Testing Drilled Cores and Sawed Beams of Concrete.

- n. C88, Standard Test Method for Soundness of Aggregates by Use of Sodium Sulfate or Magnesium Sulfate.
- o. C94, Standard Specification for Ready-Mixed Concrete.
- p. C143, Standard Test Method for Slump of Hydraulic Cement Concrete.
- q. C150, Standard Specification for Portland Cement.
- r. C172, Standard Practice for Sampling Freshly Mixed Concrete.
- s. C173, Standard Test Method for Air Content of Freshly Mixed Concrete by the Volumetric Method.
- t. C231, Standard Test Method for Air Content of Freshly Mixed Concrete by the Pressure Method.
- u. C260, Standard Specification for Air-Entraining Admixtures for Concrete.
- v. C309, Standard Specification for Liquid Membrane-Forming Compounds for Curing Concrete.
- w. C494, Standard Specification for Chemical Admixtures for Concrete.
- x. C595, Standard Specification for Blended Hydraulic Cements.
- y. C618, Standard Specification for Coal Fly Ash and Raw or Calcined Natural Pozzolan for Use as a Mineral Admixture in Concrete.
- z. C803, Test Method for Penetration Resistance of Hardened Concrete.
- aa. C805, Test Method for Rebound Number of Hardened Concrete.
- bb. C979, Standard Specification for Pigments for Integrally Colored Concrete.
- cc. C989, Standard Specification for Ground Granulated Blast-Furnace Slag for Use in Concrete and Mortars.
- dd. C1017, Standard Specification for Chemical Admixtures for Use in Producing Flowing Concrete.
- ee. C1064, Standard Test Method for Temperature of Freshly Mixed Hydraulic-Cement Concrete.
- ff. C1116, Standard Specification for Fiber-Reinforced Concrete and Shotcrete.
- gg. C1315, Standard Specification for Liquid Membrane-Forming Compounds Having Special Properties for Curing and Sealing Concrete.
- hh. C1330, Specification for Cylindrical Seal Backing for Use with Cold Liquid Applied Sealants.
- ii. C1371, Standard Test Method for Determination of Emittance of Materials Near Room Temperature Using Portable Emissometers.
- jj. C1549, Standard Test Method for Determination of Solar Reflectance Near Ambient Temperature Using a Portable Solar Reflectometer.
- kk. D920, Standard Specification for Elastomeric Joint Sealants.
- ll. D994, Standard Specification for Preformed Expansion Joint Filler for Concrete Paving and Structural Construction (Nonextruding and Resilient Bituminous Types).
- mm. D1751, Standard Specification for Preformed Expansion Joint Filler for Concrete Paving and Structural Construction (Nonextruding and Resilient Bituminous Types).

- nn. D1752, Standard Specification for Preformed Sponge Rubber and Cork Expansion Joint Fillers for Concrete Paving and Structural Construction.
- oo. D2628, Specification for Preformed Polychloroprene Elastomeric Joint Seals for Concrete.
- pp. D2828, Specification for Non-Bituminous Inserts for Contraction Joints in Portland Cement Concrete Airfield Pavement, Sawable Type.
- qq. D3406, Specification for Joint Sealant, Hot-Applied, Elastomeric, Jet Fuel Resistant Type for Portland Cement Concrete Pavements.
- rr. D3569, Specification for Joint Sealant, Hot-Applied, Elastomeric-Type, for Portland Cement Concrete Pavements.
- ss. D3581, Specification for Joint Sealant, Hot-Applied, Jet-Fuel-Resistant-Type, for Portland Cement and Tar-Concrete Pavements.
- tt. D5249, Specification for Backer Material for Use With Cold- and Hot- Applied Joint Sealants in Portland Cement Concrete and Asphalt Joints.
- uu. D5893, Specification for Cold-Applied, Single Component, Chemically Curing Silicone Joint Sealant for Portland Cement Concrete Pavements.
- vv. D6690, Standard Specification for Joint and Crack Sealants, Hot Applied, for Concrete and Asphalt Pavements.
- ww. E329, Specification for Agencies Engaged in Testing and Inspection of Materials Used in Construction.
- 2. American Concrete Institute (ACI):
 - a. 301, Specifications for Structural Concrete.
 - b. 305R, Hot Weather Concreting.
 - c. 306R, Cold Weather Concreting.
 - d. 304, Guide for Measuring, Mixing, Transporting, and Placing Concrete.
 - e. 308, Standard Practice for Curing Concrete.
 - f. 318/318R, Building Code Requirements for Structural Concrete and Commentary.
 - g. 325.9R, Guide for Construction of Concrete Pavements and Concrete Bases.
- 3. American Welding Society (AWS):

1.03 SUBMITTALS

- A. Comply with Section 01 33 00, Submittal Procedures.
- B. Action submittals:
 - 1. Submit batch plant's certified test results of the following:
 - a. Cement, mill test reports.
 - b. Aggregates, sieve analyses.
 - 2. Product data and samples:
 - a. Submit manufacturer's information for material specified in Part 2 of this Section that will be incorporated into this project.
 - 3. Mix design: Concrete mix design and compressive strength results of field trial batches for each class of concrete incorporated into the work.

- C. Informational submittals:
- D. Samples:
 - 1. Submit a 6-inch sample of approved pre-molded joint filler for Engineer's and Resident Project Representative's reference.

1.04 DELIVERY, STORAGE, AND HANDLING

- A. Comply with Section 01 61 00, Common Product Requirements.
- B. All packaged materials shall be delivered in original, unopened containers with the manufacturer's name, labels, product identification, and batch numbers.
- C. Remove damaged materials from the site immediately.
- D. Store all packaged materials off the ground and protect from rain, freezing and excessive heat until ready for use. Comply with manufacturer's recommendations for storage.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. Portland cement: Comply with ASTM C150 Type I.
- B. Fine aggregates:
 - 1. Comply with ASTM C33.
 - 2. Shall be clean, sharp, natural sand, free from loam, clay, organic impurities or frozen materials and shall conform to ASTM C33 in all respects.
 - 3. Organic impurities shall not exceed limits specified in ASTM C40.
- C. Coarse aggregate:
 - 1. Comply with ASTM C33 and NYSDOT Material Designation 703-02.
 - 2. Coarse aggregate shall consist of strong, clean, crushed limestone or crushed gravel, free from deleterious material.
 - 3. Coarse aggregate shall meet the physical requirements designation 703-0201 and 703-0202, respectively.
- D. Water used in mixing concrete shall be clean and free from all acid, alkali or organic matter and shall be obtained from a potable water supply unless specifically permitted otherwise by the Engineer.
- E. Ready-mix concrete shall comply with ASTM Specification C94, this Specification, and used subject to the Engineer's approval.
- F. Admixtures:
 - 1. Air entraining agent:
 - a. Daravair 1000 or Darex AEA, as manufactured by W.R. Grace Co.
 - b. MasterAir, by BASF Master Builders.
 - c. Or approved equal.

2. Water reducing agent:
 - a. Plastiment, by Sika Corporation.
 - b. Pozzolith, by BASF Master Builders.
 - c. WRDA, by W.R. Grace.
 3. High-range water reducers or superplasticizers:
 - a. Sikament-FF, by Sika
 - b. Daracem-100 or WRDA-19, by W.R. Grace.
 - c. Or approved equal.
- G. Bonding Agent:
1. Two-component, 100% solids, moisture-tolerant, structural epoxy adhesive.
 2. Conform to ASTM C881, Types I, II, and V, Grade-2, Class C and AASHTO M235.
 3. Product:
 - a. Sikadur 32 Hi-Mod, by Sika Corporation.
 - b. Or approved equal.
- H. Forms and accessories:
1. Forms shall be wood, metal, or other approved materials as follows:
 - a. Plywood shall be commercial standard Douglas Fir, moisture resistant, concrete form plywood, at least 5-ply 5/8" thick.
 - b. Metal forms shall be as approved, and must produce surfaces equal to those specified for wood forms.
 2. Form oil:
 - a. Concrete form release compound shall be composed of an organic chemical that reacts with the alkali content of concrete to form a release film, along with providing an inert barrier to provide double separation.
 - b. Form release compound shall be VOC-compliant, non-staining mineral oil, such as Duogard, by W.R. Meadows, or equal.
 3. Form ties:
 - a. Ties shall be adjustable length and free of devices that will leave hole or depression larger than 7/8" diameter.
 - b. When forms are removed no metal shall be left within 1" of finished surface.
- I. Pre-molded joint filler:
1. Expansion joint filler composed of granulated cork particles, resin-bonded into board form, compressed and dehydrated under heat and pressure, that will expand up to 140% of the original thickness after installation due to the re-absorption of moisture.
 2. Joint filler shall conform to the following standards and have the following requirements:
 - a. ASTM D1752, Type III.
 - b. AASHTO M 213, Type II.
 - c. ASTM D 545:
 - 1) Density Minimum: 16.0 lb/cu. ft.
 - 2) Load to Compress to 50% original thickness: 50 to 1500 psi.
 - 3) Recovery: 90%, minimum.
 3. Thickness: 1/2-inch.

4. Manufacturer: Self-Expanding Cork Expansion Joint Filler, by W.R. Meadows.

J. Joint Sealant:

1. Single-component, elastomeric polyurethane sealant, gray in exposed locations.
2. Physical properties, cured:
 - a. Tensile properties, per ASTM D412 at 21 days:
 - 1) Tensile Stress: 175 psi, minimum.
 - 2) Elongation at Break: 550%.
 - 3) Modulus of Elasticity:
 - a) 25%: 170 psi.
 - b) 50%: 130 psi.
 - c) 100%: 90 psi.
 - b. Shore A Hardness, per ASTM D2240 at 21 days: 45, +/-5.
 - c. Tear Strength, per ASTM D624 at 21 days: 55 lb./in.
 - d. Adhesion in Peel, per ASTM C794.
 - 1) Concrete: 20-lb. min.: 0% adhesion loss.
 - 2) Aluminum: 20-lb. min.: 0% adhesion loss.
 - 3) Glass: 20-lb. min.: 0% adhesion loss.
3. Service Range: -40 degrees F to 170 degrees F.
4. The sealant shall conform to Federal Specification TT-S-00230C, Type II, Class A.
5. The sealant shall conform to ASTM C920, Type S, Grade NS, Class 35.
6. The sealant shall comply with NSF Standard 61 for use in contact with potable water.
7. The sealant shall be non-staining.
8. VOC content: 8 g/L.
9. Products:
 - a. MasterSeal NP1, by BASF MasterBuilders.
 - b. Sikaflex 1A, by Sika Corporation.
 - c. Or approved equal.

K. Grout:

1. Non-metallic, non-shrink cementitious grout for structural applications.
2. Products:
 - a. Masterflow 100, by Master Builders / BASF.
 - b. Sika Grout 212, by Sika Corporation.
 - c. Or approved equal.

L. Liquid Hardener:

1. Lapidolith, by Conren.
2. EmeryTop 400, by Laticrete International, Inc.
3. Or approved equal.

M. Curing compound:

1. Acrylic-based:
 - a. Kure-N-Seal, by Sonneborn.
 - b. CS-309, by W.R. Meadows.
2. Water-based:
 - a. VOCOMP-20, by W.R. Meadows.

2.02 MIX DESIGN

- A. The various classes of concrete shall be designated as follows:

MAXIMUM PERMISSIBLE WATER-CEMENT RATIOS FOR CONCRETE (WHEN STRENGTH DATA FROM TRIAL BATCHES OR FIELD EXPERIENCE ARE NOT AVAILABLE)					
CLASS	MIN. 28-DAY COMPRESSIVE STRENGTH IN PSI*	NON-AIR-ENTRAINED CONCRETE		AIR-ENTRAINED CONCRETE	
		ABSOLUTE RATIO BY WEIGHT	US GAL. PER 94-LB. BAG OF CEMENT	ABSOLUTE RATIO BY WEIGHT	US GAL. PER 94-LB. BAG OF CEMENT
A	5,000	**	**	**	**
B	4,000	0.44	5.0	0.35	4.0
C	3,000	0.58	6.6	0.46	5.2
D	2,500	0.67	7.6	0.54	6.1
E	2,000	0.71	8.0	-	-
<p>*28-day strength. With most materials, water/cement ratios shown will provide average strengths greater than indicated in Section 5.4 of ACI 318R as being required.</p> <p>*For strength above 4,500 psi (non-air-entrained concrete) and 4,000 psi (air-entrained concrete) proportions shall be established by methods of Sections 5.3 or 5.4 of ACI 318R.</p>					

- B. Unless otherwise specified, all concrete shall be Class B, non-air-entrained except exposed concrete which shall be air-entrained. When foundation walls or grade beams are exposed to weather above grade, the entire wall shall be considered exposed concrete.

- C. Maximum aggregate size:
 - 1. 1-1/2": general work.
 - 2. 3/4": Sections less than 12 inches thick, heavy reinforcing; slabs.
 - 3. 3/8": floor toppings.
- D. Maximum slump:
 - 1. Reinforced concrete: 4 inches.
 - 2. Reinforced concrete, walls less than 12 inches thick: 5 inches.
 - 3. Columns: 5 inches.
 - 4. Non-reinforced concrete: 3 inches.
- E. Air Content:
 - 1. The entrained air shall be controlled between 4% and 6%.
 - 2. For mixes containing coarse aggregate 3/4-inch or smaller and for exposed concrete subject to frost and salt action, increase air entrainment to 5% to 7%.

PART 3 - EXECUTION

3.01 BATCHING AND MIXING

- A. The Contractor shall have available at all times sufficient approved materials such that, when once started, concreting shall be a continuous operation until the placing of the panel or section is completed. The top surface shall be generally level. When construction joints become necessary, they shall be made as hereinafter specified.
- B. All concrete shall be mixed not less than 60 revolutions in the drum of a modern power mixer, at the rated speed of rotation. Mix not less than an additional 30 revolutions after the addition of any further water to the mix.
- C. Transit-mixed concrete shall be transported to the job site unmixed and only after arrival at the job site shall mixing begin. All concrete shall be unloaded from the mixer within 45 minutes after completion of mixing. All concrete still remaining in the truck shall be rejected.
- D. The total time interval from the time the cement makes contact with the aggregate to the complete unloading from the mixer shall not exceed 90 minutes, unless such time is extended by the Engineer. The time may be reduced in hot weather or under unusual conditions, if unsatisfactory results are obtained.

3.02 FORMWORK

- A. The Contractor shall design and construct suitable and adequate formwork in conformance with ACI 347R.
- B. All shoring shall be properly braced to safely withstand all vertical, moving and lateral forces during the construction period.
- C. Set forms true to line and grade and make mortar-tight.

- D. Chamfer above grade exposed joints, edges, and external corners of concrete 3/4-inch, unless otherwise indicated.
- E. Before concrete placement, coat the contact surfaces of forms with a non-staining form coating compound.
- F. Do not use mineral oil on formed surfaces to be painted. Prevent concrete damage during form removal.
- G. Concrete for footings may be placed in excavations without forms upon inspection and approval by the Engineer.
- H. Excavation width shall be a minimum of 4 inches greater than finished dimensions indicated.
- I. It shall be the Contractor's responsibility to determine the time at which forms may be removed without endangering the structure, subject to the following limitations, unless documentation is provided to modify these requirements:
 - 1. Footing forms: 24 hours minimum; continue curing as specified.
 - 2. Wall forms: 2 days minimum for ten (10) feet high. Add one (1) day for each additional five (5) feet of height; continue curing as specified.

3.03 JOINTS FOR CONCRETE:

- A. Expansion joints:
 - 1. Expansion joints shall be constructed where shown and as directed.
 - 2. Reinforcement, corner protection angles or other fixed items embedded or bonded into concrete shall not be run continuously through expansion joints.
 - 3. Reinforcement shall be discontinued 2 inches from the joint face.
 - 4. Tool joint edges to provide a rounded finish at all expansion joints.
 - 5. Install preformed expansion joint filler material and sealant, where shown on the drawings.
- B. Construction joints:
 - 1. The location of construction joints shall be chosen by the Contractor and shall be subject to the Engineer's approval except where specifically located on the Plans.
 - 2. Horizontal construction joints in walls will not be permitted.
 - 3. Reinforcing shall be discontinuous through a construction joint, unless otherwise noted on drawings.
 - 4. As shown or specified on the drawings, additional No. 3 reinforcing bars spaced at 12 inches on center shall be placed horizontally in each construction joint at the center of the section.
 - 5. These bars shall be 4 feet long and shall extend 2 feet on each side of the joint.
 - 6. Reinforcement projecting through joint shall be kept clean.
 - 7. As indicated on the drawings, all construction joints shall be provided with a keyway.
- C. Control joints:
 - 1. Locate as shown on the drawings or as directed.

2. Reinforcement through the joint shall be continuous as shown on the drawings and/or as directed by the Engineer.
3. Type A control joint:
 - a. Sawcut control joints shall be made by cutting the concrete surface and filling with the sealant material.
 - b. Cutting shall be done after the surface is firm enough not to be damaged by the cutting blade.
 - c. Time of cutting shall be approved by the Engineer.
4. Type B control joint: Tooled control joint shall be made by tooling with a 1/4-inch radius edging tool and filled with the sealant.
5. Type C control joint:
 - a. Premolded control joints shall be Kold-Seal Zipper Strip, by Vinylex, Zip Cap Control Joint by Greenstreak Products, or approved equal.

3.04 INSERTS AND SLEEVES:

- A. Coordinate with all other contractors in the placement of necessary sleeves, conduits, and inserts.
- B. The General Contractor shall notify the trades of all pours in sufficient time for the responsible Contractor to place all embedded items, sleeves, slots, holes or chases.
- C. Accurately set all slots, chases, anchor bolts, and openings.
- D. All inserts for hanging mechanical equipment shall be provided and set by the Contractor for the trade involved.
- E. All sleeves for piping passing through floors and walls shall be provided by the Contractor for the trade involved and set by the General Contractor.
- F. All conduit which must be placed in concrete slabs shall be installed after, and above the bottom reinforcing, but before, and under the top reinforcing.
- G. Where conduit cross-overs are necessary, they shall be located so that reinforcing is not displaced from its specified position.
- H. If, in the judgement of the Engineer, embedded items are located or grouped in a manner that will weaken the structure, the Contractor shall take the necessary corrective steps.
- I. All inserts and sleeves where the outside diameter is greater than the spacing between the reinforcing steel, the reinforcing bars shall be warped around such inserts and sleeves.
- J. Unless shown otherwise on the drawings, provide, as a minimum, two #4 diagonal bars per face at 90 degrees to each other all around the inserts and sleeves.
- K. Where openings are left in new concrete or are made in existing concrete for the insertion of wall castings, pipes or other fixtures, the space around these fixtures shall

be made watertight by completely filling with a non-shrinking concrete containing an admixture of "SikaSet-C", "Anti-Hydro" Concrete Waterproofing Agent, or equal.

3.05 CONVEYING AND PLACING CONCRETE:

- A. The placing or depositing of all concrete shall be done in accordance with ACI 304R, Guide for Measuring, Mixing, Transporting and Placing Concrete and as modified herein.
- B. Before placing concrete, all debris, water, snow and ice shall be removed from places to be occupied by concrete.
- C. Wood forms shall be wetted except in freezing weather or oiled, and the reinforcement cleaned of ice or other coatings.
- D. Conveying, transporting, and placing shall be done as rapidly as practicable and without segregation, loss of ingredients, and without unnecessary rehandling.
- E. Re-tempering concrete is not permitted.
- F. Spade and work the coarse aggregate away from forms and work concrete around reinforcement to avoid air pockets, voids, and honeycombed sections.
- G. The use of a mechanical vibrator is mandatory, but concrete must not be over-vibrated.
- H. Hand spading will be required in addition to mechanical vibration.
- I. Maintain spare vibrator(s) at site for use in case of breakdowns.
- J. Screed all work to level surfaces at the proper elevations. Rake surfaces to provide bond for floor finishes where specified.
- K. No concrete shall be deposited under water without written permission of the Engineer and then only in accordance with his directions.
- L. Proper tremie equipment and techniques must be used, should the need arise.

3.06 FIELD QUALITY CONTROL

- A. The Contractor shall employ an approved commercial testing laboratory at his own expense to provide field sampling, testing and inspection of all concrete.
- B. Continuous inspection by the approved testing laboratory shall be provided during all concrete pours.
- C. The Contractor shall maintain a record set of plans at the site showing date and amount of each pour, test results and temperature.
- D. If any portion of the work shows low test results, the Engineer may require additional testing, load tests, cored samples, and/or replacement of the faulty work, etc., at the Contractor's expense.

- E. Field concrete inspection: The Contractor, thru its approved testing laboratory, shall provide a competent field concrete inspector whose minimum duties shall be as follows:
1. Collect and verify with each batch of concrete, before unloading at the site, a delivery ticket on which is printed, stamped, or written, information concerning said concrete. Have available for Engineer to review if requested.
 2. Check each truck on arrival to make sure that the concrete is not retempered.
 3. Make necessary slump tests for uniformity control.
 4. Make air tests and yield tests as required.
 5. Make any and all test cylinders as may be required in the Specifications.
 6. Transport cylinders from the site to the laboratory.
 7. Notify the Engineers and/or his representative if any test results vary from the specified limits.
- F. Tests:
1. Concrete shall be tested by an approved testing laboratory as follows:
 - a. Standard 6" x 12" compression cylinders shall be in compliance with ASTM C39 in sets of four and shall be moist cured.
 - b. Break two cylinders at 7 days, and two cylinders at 28 days.
 - c. One set shall be made for approval of each mix design, one set for first pour of 50 cubic yards or less, and one set for each additional pour of 50 cubic yards.
 - d. If less than 50 cubic yards are placed in one day, one set shall be made for each day's pour.
 - e. All test cylinders shall be cast, moist cured and broken under laboratory conditions in accordance with the ASTM C31 and ASTM C39.
 - f. All four cylinders of a test shall be taken from the middle third of a single load.
 - g. Each cylinder shall be properly labeled with an identifying mark, the mix proportions, air content, amount of water, slump, and the location in the structure where the concrete was placed.
 - h. Test reports shall include all this information.
 - i. Distribute copies of reports as requested by the Engineer.
 - j. Should any results be questionable, the Engineer shall be notified immediately so that corrective measures can be taken.
 - k. Test cylinders that fails to meet requirements shall be preserved for inspection by the Engineer.

3.07 INSPECTION

- A. Before each pour, forms and reinforcing shall be inspected and approved by the Engineer.
- B. The Contractor shall give at least 24 hours' notice before such an inspection is required. No pour shall be started until the Engineer has given approval.
- C. No concreting may be done in the absence of the Engineer without written permission of the Engineer.

3.08 PROTECTION AND CURING

- A. All concrete shall be protected against injury by sun, rain, freezing, mechanical damage, or premature drying.
- B. All concrete shall be maintained above 50 degrees F in a moist or wet condition for at least the first 7 days after placement.
- C. On vertical surfaces keep forms on, or cover with burlap blankets, kept wet.
- D. On horizontal surfaces and floors to receive later finishes, cover with wet burlap, wet sand, or curing paper and keep saturated.
- E. Cement finish floors shall be covered with protective covering material with lapped and sealed edges after the concrete has set sufficiently to carry worker's weight.
- F. Covering shall remain in place until floor is cleaned. Weight covering with planks as required to hold it in place.
- G. Cold weather concreting:
 - 1. Cold weather protection shall conform to A.C.I. 306R, Cold Weather Concreting except as herein modified.
 - 2. Keep the forms free from snow, ice, mud, and other deleterious materials prior to placing concrete.
 - 3. Use of torches, open flames, salts, straw, hay or chemical is prohibited.
 - 4. When air temperature is 40 degrees F, or less, use only heated concrete, delivered to the forms at temperatures between 65 degrees F and 85 degrees F.
 - 5. All portions of freshly poured concrete shall be continually maintained at a temperature of not less than 50 degrees F for seven days.
 - 6. Specified temperature shall be maintained by heated enclosures, insulating blankets, insulated forms, or whatever approved methods are required to attain the specified result.
 - 7. Concrete shall not be placed on frozen soil
 - 8. After placement, protect against freezing and heaving of subgrade.
 - 9. Frozen concrete will be rejected and removed at the Contractor's expense.
 - 10. Accelerating admixtures shall not be accepted in lieu of winter protection.
- H. Hot weather concreting:
 - 1. Hot weather concreting shall conform to ACI 305R, Hot Weather Concreting except as modified herein.
 - 2. During warm dry weather special care and precautions should be taken to prevent premature setting which may cause shrinkage and surface checking.
 - 3. No concrete shall be placed at temperatures above 90 degrees F without approval of the Engineer.
 - 4. No water (except curing spray) shall be allowed to come in contact with the concrete or masonry surface for a minimum of 24 hours.
 - 5. Should the rising water place a stress on the concrete, proper bracing shall be provided.
 - 6. Loading shall not occur without prior approval by the Engineer, and proper safety precautions shall be the responsibility of the Contractor.

7. Curing compound may be used as specified herein, provided discoloration does not occur and application is in accordance with manufacturer's direction and is compatible with concrete finish.

3.09 SLABS ON GRADE

- A. Prepare subgrade and base as specified herein Contract Documents.
- B. Form depressed ribs under partitions as required by sloping gravel, or provide permanent side forms to retain gravel.
- C. Trench subgrade for electric conduit as detailed on Plans.
- D. Place all reinforcing above electrical conduit.
- E. Place slabs of thickness shown on Plans, vibrate, screed, float level, and finish as specified herein.

3.10 FINISHING, FORMED SURFACES FINISHES

- A. After the forms are removed, all concrete surfaces shall be inspected, and any poor joints, voids, stone pockets or other defective areas noted by the Engineer shall be repaired immediately at the Contractor's expense by cutting away the unsound area to a minimum depth of 1 inch, and refilling with mortar mixed using the same brand of cement as the original batch.
- B. Edges of the patch shall be square with the face, with feather-edging prohibited. Obtain approval of corrective action prior to repair.
- C. Care shall be taken to saturate the patched area and holes shall be filled in 1/2-inch layers with a delay for an initial set to take place before the succeeding layer is applied.
- D. If, in the opinion of the Engineer, improper consolidation is too extensive, or if the structure appears weakened by the voids, complete removal of the concrete in question may be required.
- E. Patches shall be kept moist for a minimum of three days.

3.11 FLOOR AND SLAB FINISHING:

- A. Finished floors and slabs shall be level to within 1/8" of finish floor elevation in ten feet.
- B. If this variation occurs, it must not be abrupt, but must taper so that the 1/8" variation takes place in not under 4 feet.
- C. Areas with drains shall have the surfaces sloped uniformly and true to the effect that no surface ponding occurs.
- D. If required by the Engineer, replace, grind or furnish underlayment to correct the variation, at the Contractor's expense.

- E. All floors and slabs shall be cured and protected as specified.
- F. Under quarry tile and ceramic tile screed and float top surface of slab, after concrete has been compacted, to accurate lines and levels as required to receive these materials.
- G. Floors receiving a tile finish are indicated on the Plans.\
- H. Where exposed concrete finish is specified, provide a steel trowelled finish.
- I. After concrete has set sufficiently to carry the weight of the workman, float with motor-driven rubber disc machine to thoroughly compact and close any surface voids.
- J. Dusting with dry cement or cement sand mixtures, to hasten drying, is prohibited.
- K. Dry time shall be controlled by controlling the water content and slump of the concrete when placed.
- L. Liquid hardener, as specified herein, shall be applied to exposed concrete finish floors where shown on the Contract Drawings.
- M. Cure floors thoroughly.
- N. Hardener shall be applied in accordance with Manufacturer's directions in at least two coat application, allowing 24 hours between coats.
- O. Coverage, for each coat, shall be one gallon per 100 square feet.
- P. After final coat is complete and dry, remove surplus hardener by scrubbing and mopping with water.
- Q. A float finish shall be applied to all exterior concrete and those areas not intended for occupancy, such as culvert inverts, bottoms of manholes and catch basins, pads, etc.

3.12 MISCELLANEOUS CONCRETE WORK

- A. General:
 - 1. Pour all sump pits, canopies, copings and provide all other miscellaneous concrete and cement work shown on the drawings.
 - 2. All such concrete shall be reinforced as shown. Provide all cement filled stair treads as detailed.
 - 3. Place bottoms and walls of pits and trenches monolithically.
- B. Concrete walks, curbs and gutters: Comply with Section 32 13 13, Concrete Paving.
- C. Equipment Bases:
 - 1. Unless otherwise shown, all equipment shall be erected on bases of Class B concrete.
 - 2. Thickness shall be as noted on the Plans, but at no time shall it measure less than 1 inch.

+ + END OF SECTION + +

MISCELLANEOUS CAST-IN-PLACE CONCRETE
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SECTION 11 68 33

SITE AMENITIES

PART 1 - GENERAL

1.1 DESCRIPTION

- A. The contractor shall provide all labor, materials, equipment and services necessary for and incidental to the installation of outdoor game equipment and amenities as shown on the drawings and as specified herein.

1.2 REFERENCES

- A. American Society for Testing and Materials (ASTM)
- B. American Institute of Steel Construction (AISC)
- C. American Welding Society (AWS)

1.3 SUBMITTALS

- A. Shop Drawings
 - 1. Indicate locations; pertinent details at minimum of 3/4" scale.

1.4 QUALITY ASSURANCE

- A. Manufacturer/Fabricator: Minimum of three (3) years' experience of successful experience in the manufacture/fabrication of the type of equipment specified.
- B. Installers: Minimum of three (3) years successful experience in the installation of the type of equipment specified

1.5 PRODUCT DELIVERY, STORAGE AND HANDLING

- A. Deliver, store, and handle all game as recommended by the manufacturer or fabricator, to prevent damage to equipment.

PART 2 - PRODUCTS

2.1 FLAGPOLE BASE COVER

- A. Description: Provide a decorative, circular, two-piece base cover to conceal the base of the existing multi-post flagpole. Cover shall be aluminum or corrosion-resistant composite and compatible with outdoor use.
- B. Dimensions:

1. Minimum inside diameter: 14 inches minimum – verify in field.
2. Height: 10 inches minimum.
3. Inside clearance shall fully accommodate existing post configuration without contact or interference.

C. Construction:

1. Fabricated from cast or formed aluminum, powder-coated finish, color to match adjacent furnishings: white.
2. Two-piece, bolt-together design with tamper-resistant stainless steel fasteners.
3. Cover shall be hollow (no grout or concrete fill) and removable for future maintenance access.

2.2 BENCHES – SALVAGED MEMORIAL BENCHES

- A. Scope: Salvage, protect, and reinstall existing granite memorial benches on new concrete pavement at locations shown on the Drawings.
- B. Salvage and Protection:
1. Carefully dismantle benches without damage.
 2. Clean contact surfaces of all debris and adhesive.
 3. Store in a secure, weather-protected location.
 4. Protect from staining, impact, and moisture until reinstallation.

PART 3 - PART 3 - EXECUTION

3.1 ERECTION

- A. Flagpole Base Cover Installation
1. Install over existing flagpole posts to conceal the base and create a unified architectural appearance.
 2. Base cover shall be secured to surrounding concrete pavement with stainless steel anchors and concealed fasteners at a minimum of three (3) equally spaced points around the perimeter.
 3. Shim and seal at concrete surface as needed to prevent rocking or movement.
 4. Do not fasten to flagpole posts or encase any part of them in concrete or grout.
- B. Reinstallation – Salvaged Memorial Benches:
1. Clean all granite surfaces with a pH-neutral cleaner.
 2. Set benches level and stable on concrete pavement.
 3. Use non-staining shims as needed; shim to prevent rocking.
 4. Secure bench tops to legs with concealed stainless steel pins and exterior-grade epoxy.
 5. Do not drill or alter granite without approval.

6. Where anchoring is required, drill into concrete and set stainless steel dowels with non-shrink epoxy.

C. Finish – Salvaged Memorial Benches:

1. Clean all adhesive residue and surface marks.

2. Benches shall be stable, damage-free, and acceptable to the Owner upon final inspection.

D. Construct concrete footings set below finished concrete course as shown on drawings. Set sleeves plumb, level and true.

E. Check equipment for alignment and hold in position during placement and finishing operations.

F. Erect equipment plumb, level and true.

G. All bolts shall be peened over.

H. Install safety surfacing as per manufacturers' recommendations, use "Poly Foam" padding where required for compliance with fall height requirements.

3.2 TOUCHING UP

A. After erection and installation are complete, touch up portions damaged during transportation and erection using same finish to match.

++ END OF SECTION ++

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SECTION 31 05 13

SOILS FOR EARTHWORK

PART 1 - GENERAL

1.01 SUMMARY

- A. Section includes:
 - 1. General Fill.

1.02 REFERENCE STANDARDS

- A. The following is a list of standards that may be referenced in this section:
 - 1. ASTM International (ASTM):
 - a. D1557, Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort.
 - b. D2487, Standard Practice for Classification of Soils for Engineering Purposes (Unified Soil Classification System).
 - c. D4318, Standard Test Method for Liquid Limit, Plastic Limit, and Plasticity Index of Soils.
 - d. D4972, Standard Test Method for pH of Soils.
 - e. D6913, Standard Test Methods for Particle-Size Distribution (Gradation) of Soils Using Sieve Analysis.
 - f. D6938, Standard Test Methods for In-Place Density and Water Content of Soil and Soil-Aggregate by Nuclear Methods.
 - g. D7928, Standard Test Method for Particle-Size Distribution (Gradation) of Fine-Grained Soils Using the Sedimentation (Hydrometer) Analysis.
 - h. F1647, Standard Test Methods for Organic Matter Content of Athletic Field Rootzone Mixes.

1.03 SUBMITTALS

- A. Comply with Section 01 33 00, Submittal Procedures.
- B. Action submittals:
 - 1. Submit gradations and sieve analyses, Atterberg limits, and Proctor densities to demonstrate conformance with these requirements.
 - 2. Submit name of imported materials source.
 - 3. Submit mineral analysis and nutrient content.
- C. Informational submittals:
 - 1. Copies of agreements between Contractor and private landowner accepting spoil material.

1.04 QUALITY ASSURANCE

- A. Furnish each General Fill material from single source throughout Work.

PART 2 - PRODUCTS

2.01 FILL AND BACKFILL MATERIALS

- A. Material specifications included herein are designated as “fill” materials and apply to both fill and backfill unless otherwise specified.
- B. General Fill:
 - 1. Excavated and reused material, graded.
 - 2. Free of lumps larger than 3 inches, rocks larger than 4 inches in any dimension, debris, roots wood, scrap material, vegetable matter, refuse, soft unsound particles, frozen deleterious, or other objectionable materials.
 - 3. Conforming to ASTM D2487 Group Symbol GW, GM, GC, SW, SM, or ML, or as otherwise approved by the Engineer.
- C. Imported General Fill:
 - 1. Bank run gravel, conforming to NYSDOT 733-11.
 - 2. Percent passing by weight per sieve size:
 - a. 4-inch: 100.
 - b. No. 40: 0 to 70.
 - c. No. 200: 0 to 15.
- D. Borrow Material: When insufficient job-excavated material is available, off-site borrow material meeting the requirements of General Fill and Imported General Fill may be used.

2.02 SOURCE QUALITY CONTROL

- A. Furnish materials of each type from the same source throughout Work.
- B. When tests indicate materials do not meet specified requirements, change material and retest.
- C. Furnish materials of each type from same source throughout Work.

PART 3 - EXECUTION

3.01 EXCAVATION

- A. Excavate subsoil from areas designated. Strip topsoil to full depth of topsoil in designated areas.
- B. All sod cut during excavation shall be removed and stored during construction so as to preserve the grass growth, and shall be replaced in position on completion of the Work.
- C. Stockpile excavated material meeting requirements for General Fill materials.
- D. Remove excess excavated materials not intended for reuse from the Site.

- E. All spoil materials shall be lawfully disposed off-site at appropriate locations selected and obtained by Contractor.
- F. No environmentally sensitive areas shall be used for spoil areas.
- G. Comply with requirements for stockpile storage included in the SWPPP.
- H. A copy of the signed agreement between the property owner and Contractor granting permission to deposit spoil shall be submitted to Engineer prior to placement.
- I. Remove excavated materials not meeting requirements for General Fill materials from the Site.

3.02 HAULING MATERIAL

- A. When it is necessary to haul material over the streets or pavements, Contractor shall provide suitable tight vehicles so as to prevent deposits on the streets or pavements.
- B. In all cases where any materials are dropped from the vehicles, Contractor shall clean up the same at least daily or as often as directed and keep the crosswalks, streets and pavements clean and free from dirt, mud, stone and other hauled materials.

3.03 STOCKPILING

- A. Stockpile materials on Site at locations designated and approved by Engineer and as otherwise required by Contract Documents.
- B. Stockpile in sufficient quantities to meet Project schedule and requirements.
- C. All excavation materials shall be stored in locations as to not endanger the Work, and so that easy access may be had at all times to all parts of the excavation.
- D. Separate differing materials with dividers or stockpile apart to prevent mixing.
- E. Prevent intermixing of soil types or contamination.
- F. Direct surface water away from stockpile sites to prevent erosion or deterioration of materials.
- G. Stockpile unsuitable materials on impervious material and cover to prevent erosion and leaching, until disposed.
- H. All excavated materials shall be kept clear of sidewalks, driveway entrances/exits, street crossings, and any other points that may inconvenience the public.
- I. Special precautions must be taken to permit access at all times to fire hydrants, fire alarm boxes, police and fire department driveways, and other points of public convenience.
- J. Where traffic is to be maintained, at least one-half of the street width must be kept open at all times.

- K. Approved types of bridging across trenches shall be constructed and maintained where necessary.
- L. Where conditions do not allow for storage of materials, materials excavated from the first 100 feet of any opening, or from such additional length as may be required, shall be removed from the street by Contractor as soon as excavated.
- M. The material subsequently excavated shall be used to refill the trench where the utility has been built, provided it fulfills the requirements for fill materials.
- N. If more material is excavated from any trench, excavation, or pit than can be refilled over the completed work or stored on the street, leaving space for traffic as herein provided, or within the limits of the right-of-way, the excess material shall be spoiled at locations selected and obtained by Contractor.
- O. When the facility is complete, Contractor shall bring back adequate amounts of satisfactory excavated materials as may be required to properly refill the trenches, excavations, or pits.
- P. If directed by Engineer, Contractor shall refill such trenches, excavations, or pits with special backfill or other suitable materials, and excess excavated materials shall be disposed as spoil.

3.04 STOCKPILE CLEANUP

- A. Remove stockpile, leave area in clean and neat condition. Grade Site surface to prevent free standing surface water.
- B. When borrow area is indicated, leave area in clean and neat condition.
- C. Grade Site surface to prevent free standing surface water.

+ + END OF SECTION + +

SECTION 31 05 16

AGGREGATES FOR EARTHWORK

PART 1 - GENERAL

1.01 SUMMARY

- A. Section includes material requirements and gradations for all unbound aggregates required by the Contract Documents.
- B. Aggregate mixes including in this specification include:
 - 1. Granular Fill.
 - 2. Pipe Bedding.
 - 3. Structural Fill.
 - 4. Sand Fill.
 - 5. Underdrain Filter.
 - 6. Pea Gravel.

1.02 REFERENCE STANDARDS

- A. The following is a list of standards that may be referenced in this Section:
 - 1. American Association of State Highway Transportation Officials (AASHTO):
 - a. M147, Standard Specification for Materials for Aggregate and Soil-Aggregate Subbase, Base and Surface Courses.
 - b. T180, Standard Specification for Moisture-Density Relations of Soils Using a 10-lb Rammer and a 18-in. Drop.
 - 2. ASTM International (ASTM):
 - a. C88, Standard Test Method for Soundness of Aggregates by Use of Sodium Sulfate or Magnesium Sulfate.
 - b. C136, Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates.
 - c. D698, Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft³).
 - d. D1557, Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft³).
 - e. D2487, Standard Classification of Soils for Engineering Purposes (Unified Soil Classification System).
 - f. D4318, Standard Test Method for Liquid Limit, Plastic Limit, and Plasticity Index of Soils.

1.03 SUBMITTALS

- A. Comply with Section 01 33 00, Submittal Procedures.
- B. Materials Source: Name of imported materials Suppliers.

1.04 QUALITY ASSURANCE

- A. Furnish each aggregate material from single source throughout Work.

PART 2 - PRODUCTS

2.01 GENERAL

- A. All granular materials shall be free from any organic or other deleterious materials.
- B. The quality of the gravel or stone particles shall be demonstrated per ASTM C88.
- C. The maximum weight loss at four (4) cycles shall be 20 percent.

2.02 MATERIALS

- A. Granular Fill:
 - 1. Shall consist of clean, sound, crushed stone, free from coatings, or recycled material approved for use in accordance with Section 733-19, "Recycled Materials Approved for Use as Earthwork Material" of the NYSDOT Standard Specifications.
 - 2. Conforming to New York State Department of Transportation Standard Specifications Section 733-04, Subbase Course, Type 2.
 - 3. Percent passing by weight per sieve size:
 - a. 2 inch: 100.
 - b. 1/4 inch: 25-60.
 - c. No. 40: 5 to 40.
 - d. No. 200: 0 to 10.
- B. Pipe Bedding:
 - 1. Shall consist of clean, sound, crushed stone and shall be free from coatings.
 - 2. Conform to NYSDOT 703-02 for coarse aggregate requirements.
 - 3. Equal parts, by volume, NYSDOT No. 1 Stone and NYSDOT No. 2 Stone.
- C. Structural Fill:
 - 1. Sandy gravel or gravely sand free from ice, snow, roots, stumps, and other deleterious materials.
 - 2. Liquid limit: 40.
 - 3. Plasticity limit: 15.
 - 4. Percent passing by weight per sieve size:
 - a. 1-1/2 inch: 100.
 - b. No. 4: 30 to 65.
 - c. No.10: 20 to 50.
 - d. No. 40: 5 to 30.
 - e. No. 100: 0 to 10.
- D. Sand Fill:
 - 1. Clean, hard, durable, uncoated particles, free from clay lumps and all deleterious substances.

2. Conforming to New York State Department of Transportation Standard Specifications Section 703-06, Cushion Sand.
 3. Percent passing by weight per sieve size:
 - a. 1/4-inch: 100.
 - b. No. 50: 0 to 35.
 - c. No. 100: 0 to 10.
- E. Underdrain Filter:
1. Conforming to New York State Department of Transportation Standard Specifications Section 733-20, Underdrain Filter, Type 1.
 2. Percent passing by weight per sieve size:
 - a. 1 inch: 100.
 - b. 1/2 inch: 30-100.
 - c. 1/4 inch: 0-30.
 - d. No. 10: 0-10.
 - e. No. 20: 0-5.
- F. Pea Gravel:
1. Natural well-graded stone, tumbled or naturally round, washed, free of clay, shale, organic matter; graded according to ASTM C136; to following limits:
 - a. Minimum Size: 1/8 inch.
 - b. Maximum Size: 3/8 inch.
- G. River Cobble:
1. Natural well-graded stone, tumbled or naturally round, washed, free of clay, shale, organic matter; graded according to ASTM C136; to following limits:
 - a. Minimum Size: 2 inch.
 - b. Maximum Size: 5 inch.

2.03 SOURCE QUALITY CONTROL

- A. Coarse Aggregate Material, Testing and Analysis: Perform sieve analysis, plasticity index, and soundness tests in accordance with ASTM C136, ASTM D4318.
- B. When tests indicate materials do not meet specified requirements, change material and retest at Contractor's expense.

PART 3 - EXECUTION

3.01 HAULING MATERIAL

- A. When it is necessary to haul material over the streets or pavements, Contractor shall provide suitable tight vehicles so as to prevent deposits on the streets or pavements.
- B. In all cases where any materials are dropped from the vehicles, Contractor shall clean up the same at least daily or as often as directed and keep the crosswalks, streets and pavements clean and free from dirt, mud, stone and other hauled material.

3.02 STOCKPILING

- A. Stockpile materials on Site at locations designated on the Drawings, the SWPPP, or as otherwise approved by Engineer.
- B. Stockpile in sufficient quantities to meet Project schedule and requirements.
- C. Separate different aggregate materials with dividers or stockpile individually to prevent mixing.
- D. Direct surface water away from stockpile site to prevent erosion or deterioration of materials.
- E. Stockpile unsuitable materials on impervious material and cover to prevent erosion and leaching, until disposed.

3.03 STOCKPILE CLEANUP

- A. Remove stockpile, leave area in clean and neat condition.
- B. Grade site surface to prevent free standing surface water.

+ + END OF SECTION + +

SECTION 31 05 19.13

GEOTEXTILES FOR EARTHWORK

PART 1 - GENERAL

1.01 SUMMARY

- A. This section includes performance and material requirements of geotextile underlayments as called on the Drawings, including:
 - 1. Filter fabric.
 - 2. Soil stabilization fabric.

1.02 REFERENCE STANDARDS

- A. The following is a list of standards which may be referenced in this section:
 - 1. American Association of State Highway and Transportation Officials (AASHTO):
 - a. M288, Standard Specification for Geotextile Specification for Highway Applications.
 - 2. ASTM International (ASTM):
 - a. D4355, Standard Test Method for Deterioration of Geotextiles by Exposure to Light, Moisture and Heat in a Xenon Arc Type Apparatus.
 - b. D4491, Standard Test Methods for Water Permeability of Geotextiles by Permittivity.
 - c. D4533, Standard Test Method for Trapezoid Tearing Strength of Geotextiles.
 - d. D4632, Standard Test Method for Grab Breaking Load and Elongation of Geotextiles.
 - e. D4751, Standard Test Method for Determining Apparent Opening Size of a Geotextile.
 - f. D4833, Standard Test Method for Index Puncture Resistance of Geomembranes and Related Products.
 - g. D4873, Standard Guide for Identification, Storage, and Handling of Geosynthetic Rolls and Samples.
 - h. D4884, Standard Test Method for Strength of Sewn or Bonded Seams of Geotextiles.
 - i. D4886, Standard Test Method for Abrasion Resistance of Geotextiles (Sand Paper/Sliding Block Method).
 - j. D6524, Standard Test Method for Measuring the Resiliency of Turf Reinforcement Mats (TRMs).
 - k. D6525, Standard Test Method for Measuring Nominal Thickness of Rolled Erosion Control Products.
 - l. D6566, Standard Test Method for Measuring Mass per Unit Area of Turf Reinforcement Mats.
 - m. D6567, Standard Test Method for Measuring the Light Penetration of a Turf Reinforcement Mat (TRM).
 - n. D6575, Standard Test Method for Determining Stiffness of Geosynthetics Used as Turf Reinforcement Mats (TRMs).

- o. D6818, Standard Test Method for Ultimate Tensile Properties of Rolled Erosion Control Products.

1.03 SUBMITTALS

- A. Comply with Section 01 33 00, Submittal Procedures.
- B. Action submittals:
 - 1. Product Data:
 - a. Manufacturer information including tensile strength, elongation, thickness, UV resistance, and other material specifications.
 - 2. Manufacturer's Certificate: Products meet or exceed specified requirements.
 - 3. Manufacturer Instructions: Installation requirements, including storage and handling procedures.

1.04 QUALIFICATIONS

- A. Manufacturer: Company specializing in manufacturing products specified in this Section with minimum three years' documented experience.
- B. Installer: Company specializing in performing Work of this Section with minimum three years of experience.

1.05 DELIVERY, STORAGE, AND HANDLING

- A. Comply with Section 01 61 00, Common Product Requirements.
- B. Inspection: Accept materials on Site in Manufacturers' original packaging and inspect for damage.
- C. Comply with ASTM D4873.
- D. Store materials according to manufacturer instructions.
- E. Protection:
 - 1. Protect materials from moisture and dust by storing in clean, dry location remote from construction operations areas.
 - 2. Provide additional protection according to manufacturer instructions.

1.06 WARRANTY

- A. The Contractor shall obtain and submit to the Owner from the manufacturer a standard warranty provided for the geotextiles.
- B. The warranty shall guarantee that the geotextile shall remain free from defects for a minimum of one (1) year from the date of substantial completion of the project.
- C. The Engineer will review the warranty for completeness prior to the Owner accepting its provisions.

PART 2 - PRODUCTS

2.01 FILTER FABRIC

- A. Description: Non-woven polypropylene, needle-punched fabric.
- B. Performance and design criteria:
 - 1. Weight: 4.0 oz / sq. yd., per ASTM D5261.
 - 2. Grab tensile: 120 lbs, per ASTM D4632.
 - 3. Grab elongation: 50%, per ASTM D4632.
 - 4. Trapezoidal tear strength: 50 lbs, per ASTM D4533.
 - 5. CBR puncture Resistance: 310 lbs, per ASTM D6241.
 - 6. Permittivity: 1.7 per second, per ASTM D4491.
 - 7. Water flow: 135 gpm / sq ft.
 - 8. AOS: No. 70 U.S. Sieve, per ASTM D4751.
 - 9. UV Resistance: 70%, per ASTM D4355.
- C. Manufacturer:
 - 1. TenCate Geosynthetics.
 - 2. Or approved equal.

2.02 SOIL STABILIZATION FABRIC

- A. Description: Non-biodegradable, woven polypropylene fabric.
- B. Performance and design criteria:
 - 1. Weight: 6.0 oz./sq. yd., per ASTM D5261.
 - 2. Grab tensile: 315 lbs, per ASTM D4632.
 - 3. Grab elongation: 15%, per ASTM D4632.
 - 4. Trapezoidal tear: 120 lbs., per ASTM D4533.
 - 5. CBR puncture Resistance: 900 lbs, per ASTM D6241.
 - 6. Permittivity: 0.05 per second, per ASTM D4491.
 - 7. Water flow: 4 gpm / sq ft.
 - 8. AOS: No. 40 U.S. Sieve, per ASTM D4751.
 - 9. UV Resistance (at 500 hours): 70%, in accordance with ASTM D4355.
- C. Manufacturers:
 - 1. TenCate Geosynthetics.
 - 2. Or approved equal.

2.03 ACCESSORIES

- A. Sewing thread: Durability equal to or greater than durability of geotextile.

2.04 SOURCE QUALITY CONTROL

- A. Certificate of Compliance:
 - 1. If manufacturer is approved by authorities having jurisdiction, submit certificate of compliance indicating Work performed at manufacturer's facility conforms to Contract Documents.

2. Specified shop tests are not required for Work performed by approved manufacturer.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Verify that underlying surface is smooth and free of ruts or protrusions that could damage geotextile material.

3.02 PREPARATION

- A. Subgrade Material and Compaction Requirements: As specified in Section 31 22 13, Subgrade Preparation.

3.03 INSTALLATION

- A. Geotextile material:
 1. Lay and maintain smooth and free of tensile stresses, folds, wrinkles, or creases.
 2. Ensure that material is in direct contact with subgrade.
 3. Orient with long dimension of each sheet parallel to direction of slope.
 4. Minimum unseamed joints overlap: 18 inches.
- B. Sand bags: Secure all geotextiles with sandbags, or an equivalent approved anchoring system.
- C. Seams:
 1. Minimum seamed joints overlap: 18 inches at longitudinal and transverse joints.
 2. Seams across slope: Lap upper panel over lower panel.
 3. Side slopes:
 - a. In all cases, seams on side slopes shall be parallel to the line of slope and sewn or fusion welded 5 feet from the toe-of-slope upward over the length of the slope and into the anchor trench.
 - b. No horizontal seams shall be allowed on side slopes, except for patching.
 4. Sewn seams:
 - a. Continuously sew seams on slopes greater than 10 percent.
 - b. Stitch Type: As recommended by geotextile manufacturer.
 - c. Tie off thread at the end of each seam to prevent unraveling.
- D. Penetrations: As recommended by geotextile manufacturer.
- E. Repairing damaged geotextiles:
 1. On slopes:
 - a. A patch made from the same geotextile shall be double seamed into place; with each seam 1/4-inch to 3/4-inch apart and no closer than 1 inch from any edge.

- b. Should any tear exceed 10% of the width of the roll, that roll shall be removed from the slope and replaced.
- 2. Flat slopes:
 - a. A patch made from the same geotextile shall be spot-seamed in place with a minimum of 24 inches of overlap in all directions.
 - b. Remove and replace geotextile rolls which cannot be repaired.
- F. Fill and cover:
 - 1. Place fill to prevent tensile stress or wrinkles in geotextile.
 - 2. Place fill from bottom of side-slopes upward.
 - 3. Do not drop fill from height greater than 3 feet.

3.04 PROTECTION

- A. Ballast: Provide adequate ballast to prevent uplift.
- B. UV Exposure: Do not leave material uncovered for more than 14 days after installation.
- C. Do not use staples or pins to hold geotextiles in place where located adjacent to other geosynthetic layers that could be damaged.
- D. Do not operate equipment directly on top of geotextile.

3.05 POST-CONSTRUCTION

- A. Upon completion of installation, the Contractor shall submit to the Engineer:
 - 1. All quality control documentation.
 - 2. The warranty obtained from the Manufacturer/Fabricator.

+ + END OF SECTION + +

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SECTION 31 10 00

SITE CLEARING

PART 1 - GENERAL

1.01 SUMMARY

- A. Section includes the performance and material requirements to clear the Site of rubbish, debris, vegetation, pavements called for demolition, and other preparatory necessary make ready the Site for improvements as shown on the Drawings.
- B. Site clearing includes, but is not limited to the removal of the following features:
 - 1. Surface debris.
 - 2. Designated paving, curbs, gutters, and sidewalks.
 - 3. Designated vegetation.
 - 4. Abandoned buried and overhead utilities.
 - 5. Scalping topsoil.

1.02 DEFINITIONS

- A. Interfering or Objectionable Material: Trash, rubbish, and junk, vegetation and other organic matter, whether alive, dead or decaying; topsoil.
- B. Clearing: Removal of interfering or objectionable material lying on or protruding above the ground surface.
- C. Grubbing: Removal of vegetation and other organic matter including stumps, buried logs, and roots greater than 2-inch caliper to a depth of 6 inches below grade.
- D. Stripping: Removal of topsoil remaining after applicable scalping is completed.
- E. Project Limits: Areas, as shown or specified, within which Work is to be performed.

1.03 SUBMITTALS

- A. Comply with Section 01 33 00, Submittal Procedures.
- B. Action submittals:
 - 1. Product Data: Submit data for all proposed herbicides. Indicate compliance with applicable codes for environmental protection.
 - 2. Submit applicator's license, where applicable.

1.04 QUALITY ASSURANCE

- A. Conform to applicable New York State Department of Environmental Conservation code for environmental requirements, disposal of debris, and use of herbicides.
- B. Obtain Engineer's approval of staked clearing, grubbing, and stripping limits prior to commencement of activities.

1.05 SCHEDULING AND SEQUENCING

- A. Prepare Site only after adequate erosion and sediment controls are in place.
- B. Limit areas exposed uncontrolled to erosion during installation of temporary erosion and sediment controls to a maximum of 0.5 acres.
- C. Schedule tree clearing, topping, and pruning to coincide with conservation windows for threatened and endangered species identified within the Project limits.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.01 GENERAL

- A. Comply with 16 NYCRR 753 and call Dig Safely New York service at 811 not less than three working days before performing Work.
- B. Request underground utilities to be located and marked within and surrounding construction areas.
- C. Coordinate activities with utility owners.
- D. Clear, grub, and strip areas actually needed for waste disposal, borrow, or Site improvements within the limits shown or specified.
- E. Do not injure or deface vegetation that is not designated for removal.
- F. Locate, identify, and protect utilities indicated to remain.
- G. Protect bench marks, survey control points, and existing structures from damage or displacement.
- H. Do not burn or bury materials on site.
- I. Leave site in clean condition.

3.02 LIMITS

- A. As follows, but not to extend beyond the Project limits:
 - 1. Excavation excluding trenches 5 feet beyond top of cut slopes.
 - 2. Trench excavation: 4 feet from trench centerline, regardless of actual trench width.
 - 3. Fill:
 - a. Clearing and grubbing: 5 feet beyond the toe of permanent fill.
 - b. Stripping: 2 feet beyond toe of permanent fill.
 - 4. Waste disposal:
 - a. Clearing: 5 feet beyond the perimeter of the Project limits.
 - b. Stripping: not required.

- c. Grubbing: around perimeter of the Project limits, as necessary for neat, finished appearance.
- 5. Structures: 15 feet outside of new structures.
- 6. Roadways: Clearing and grubbing 30 feet from roadway shoulders.
- 7. Overhead utilities: Clearing and grubbing entire width of easement and rights-of-way.
- 8. Underground utilities:
 - a. Clearing and grubbing: 5 feet outside of excavated areas.
 - b. Contractor is also responsible to clear any tree damaged, any tree that may die, or any tree that causes a potential hazard as a result of utility installation in the opinion of the Engineer.
- 9. Other areas: As shown on the Drawings.

- B. Remove rubbish, trash, and junk from entire area within the Project limits.

3.03 CLEARING

- A. Clear areas within limits shown or specified.
- B. Fell trees so that they fall away from facilities and vegetation not designated for clearing.
- C. Cut stumps not designated for grubbing flush with ground surface.
- D. Cut off shrubs, brush, weeds, and grasses to within 2 inches of ground surface.

3.04 GRUBBING

- A. Grub areas within limits shown or specified.
- B. Remove stumps in grubbing areas to a depth of 24-inches below existing or finished grade, whichever is greater.

3.05 TREE REMOVAL OUTSIDE CLEARING LIMITS

- A. Removal within Project limits:
 - 1. Dead, dying, leaning, or otherwise unsound trees that may strike and damage Project facilities in falling.
 - 2. Removal of trees outside of clearing limits must be approved by Engineer prior to work occurring.
- B. Cut stumps off flush with ground, remove debris, and if disturbed, restore surrounding area to its original condition.

3.06 TREE TOPPING AND PRUNING

- A. Comply with Section 01 59 39, Temporary Tree and Plant Protection.

3.07 SCALPING

- A. Excavate topsoil from areas to be further excavated, re-landscaped, or regraded without mixing with foreign materials for use in finish grading.

- B. Do not excavate wet topsoil.
- C. Remove excess topsoil not intended for reuse, from the Site.

3.08 STRIPPING

- A. Strip areas within limits to minimum depths shown or specified.
- B. Do not remove subsoil with topsoil.
- C. Stockpile strippings, meeting the requirements of Section 32 92 00, Turf and Grasses, for topsoil, separately from other excavated material.

3.09 DISPOSAL

- A. Clearing and grubbing debris:
 - 1. Lawfully dispose of debris off-site.
 - 2. Chipping:
 - a. Woody debris may be chipped.
 - b. Chips may be used for landscaping onsite as mulch or uniformly mixed with topsoil, provided that resulting mix will be fertile and not support combustion.
 - c. Maximum dimensions of chipped material used onsite shall be 1/4-inch by 2 inches.
 - d. Dispose of chips that are unsaleable or unsuitable for landscaping or other uses with unchipped debris.
 - 3. Limit off-site disposal of clearing and grubbing debris to locations that are approved by Federal, State, and local authorities, and will not be visible from the Project.
- B. Strippings:
 - 1. Dispose of strippings that are unsuitable for topsoil or that exceed quantity required for topsoil off-site.
 - 2. Stockpile topsoil in sufficient quantity to meet Project needs.
 - 3. Dispose of excess strippings as specified for clearing and grubbing.

+ + END OF SECTION + +

SECTION 31 22 13

SUBGRADE PREPARATION

PART 1 - GENERAL

1.01 SUMMARY

- A. Section includes:
 - 1. Cutting, grading, filling, rough contouring, and compacting Site for structures, building pads, features, and roadways.

1.02 REFERENCES

- A. The following is a list of standards which may be referenced in this section:
 - 1. ASTM International (ASTM):
 - a. D1557, Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort.
 - b. D5519, Standard Test Methods for Particle Size Analysis of Natural and Man-Made Riprap Materials.
 - c. D6913, Standard Test Methods for Particle-Size Distribution (Gradation) of Soils Using Sieve Analysis.
 - d. D6938, Standard Test Methods for In-Place Density and Water Content of Soil and Soil-Aggregate by Nuclear Methods.
 - e. D7928, Standard Test Method for Particle-Size Distribution (Gradation) of Fine-Grained Soils Using the Sedimentation (Hydrometer) Analysis.

1.03 SUBMITTALS

- A. Comply with Section 01 33 00, Submittal Procedures.
- B. Informational submittals:
 - 1. Submit field Proctor curves for each subgrade soil type to be prepared.

1.04 DEFINITIONS

- A. Optimum moisture content: As defined in Section 31 23 23, Fill.
- B. Prepared ground surface: Ground surface after completion of clearing and grubbing, scalping of sod, stripping of topsoil, excavation to grade and scarification and compaction of subgrade.
- C. Relative compaction: As defined in Section 31 23 23, Fill.
- D. Subgrade: Layer of existing soil after completion of clearing, grubbing, scalping of topsoil prior to placement of fill, roadway structures or base for floor slab.
- E. Proof-rolling: Testing of subgrade by compactive effort to identify areas that will not support the future loading without excessive settlement.

1.05 SCHEDULING AND SEQUENCING

- A. Complete applicable Work specified in Section 02 41 16, Structure Demolition; Section 31 10 00, Site Clearing, and Section 31 23 16, Excavation, prior to subgrade preparation.
- B. Prepare subgrade when unfrozen and free of ice and snow.

1.06 QUALITY ASSURANCE

- A. Notify the Engineer when subgrade is ready for compaction or proof-rolling or whenever compaction or proof-rolling is resumed after a period of extended inactivity.

PART 2 - PRODUCTS

(Not used)

PART 3 - EXECUTION

3.01 GENERAL

- A. Verify survey bench mark and intended elevations for Work are as indicated.
- B. Keep subgrade free of water, debris and foreign matter during compaction or proof-rolling.
- C. Bring subgrade to proper grade and cross-section and uniformly compact surface.
- D. Do not use sections of prepared ground as haul roads. Protect prepared subgrade from traffic.
- E. Maintain prepared ground surface in finished condition until next course or lift is placed.

3.02 FIELD PROCTORS

- A. Contractor shall collect representative samples of the subgrade soils to be prepared for improvement and send to an approved soils laboratory for determination maximum consolidation and optimum moisture in accordance with ASTM D1557.
- B. The Contractor shall determine optimum moisture and maximum density for each soil type incorporated into the Work and when the same subsoils are sourced from different suppliers.

3.03 PREPARATION

- A. Comply with 16 NYCRR 753 and call Dig Safely New York not less than three working days before performing Work.

- B. Request underground utilities to be located and marked within and surrounding construction areas.
 - C. Identify required lines, levels, contours, and datum.
 - D. Protect utilities and/or site features indicated to remain from damage.
 - E. Protect plant life, lawns, and other features remaining as portion of final landscaping.
 - F. Protect bench marks from excavating equipment and vehicular traffic.
- 3.04 SUBSOIL EXCAVATION
- A. Excavate subsoil from areas to be further excavated, or regraded.
 - B. Do not excavate wet subsoil or excavate and process wet material to obtain optimum moisture content.
 - C. When excavating through roots, perform Work by hand and cut roots with sharp axe.
 - D. Stockpile subsoil in area designated on Site to depth not exceeding 8 feet and protect from erosion.
- 3.05 FILLING
- A. Fill areas to contours and elevations with unfrozen materials.
 - B. Tolerances: Top surface of subgrade shall be filled to +/-0.10 foot from Plan elevation.
- 3.06 COMPACTION
- A. Under Unpaved Areas:
 - 1. Three passes with three-wheeled power roller weighing approximately 10 tons.
 - 2. Compact upper 6 inches to minimum of 90 percent of the Modified Proctor.
 - B. Under Pavement Structure, Floor Slabs on Grades, or Granular Fill Under Structures: Compact the 6-inch to minimum 95 percent of the Modified Proctor.
- 3.07 MOISTURE CONDITIONING
- A. Acceptable subgrade moisture range shall be between +3% and -2% of Optimum Moisture, as determined by the field Proctor.
 - B. Dry subgrade: Add water, then mix to make moisture content uniform throughout.
 - C. Wet subgrade: Aerate material by blading, disking, harrowing, or other methods to hasten the drying process.

3.08 FIELD QUALITY CONTROL

- A. Proof-roll subgrade with equipment specified herein to detect soft or loose subgrade or unsuitable material.
- B. Suitability determination:
 - 1. Test soft areas identified through proof-rolling for Optimum Moisture and density, per ASTM D6938.
 - 2. Demonstrate that material meets the definition of General Fill, per Section 31 05 13, Soils for Earthwork.
 - 3. Unsuitable subgrade:
 - a. If moisture is within optimum tolerances established by the field Proctors and the material is still yielding under compactive effort, relative to adjacent subgrade, then the material will be deemed unsuitable.
 - b. Notify the Engineer of unsuitable material prior to over-excavation.
- C. Perform laboratory material tests according to ASTM D1557 and ASTM D422.
- D. Perform in place compaction tests according to following:
 - 1. Density and moisture tests: ASTM D6938.
- E. Minimum frequency of testing: Every 500 square feet of the prepared subgrade.

3.09 CORRECTIVE ACTION

- A. Soft or loose subgrade:
 - 1. Over-excavate the unsuitable material to no deeper than 2 feet, in accordance with Section 31 23 16, Excavation.
 - 2. Line over-excavation with soil stabilization fabric, backfill with Structural Fill, and compact to maximum density.
 - 3. Notify Engineer if unsuitable material extends to greater than 2 feet deep.

+ + END OF SECTION + +

SECTION 31 23 16

EXCAVATION

PART 1 - GENERAL

1.01 SUMMARY

- A. Section includes performance requirements for excavation required to construct structures and utilities as shown on the Drawings.
- B. Excavation, in open cut, includes the loosening, removing, transporting, storage and disposal of all materials necessary to be removed for the construction and completion of all Work under the Contract.
- C. Compliance with 16 NYCRR 753:
 - 1. All excavation work shall be performed in accordance with 16 NYCRR 753, Protection of Underground Facilities.
 - 2. All operators operating excavating equipment under this contract shall be certified under the Dig Safely New York, Inc. Certified Excavator Program.

1.02 QUALITY ASSURANCE

- A. Survey control:
 - 1. Provide adequate survey control to avoid unauthorized over-excavation.
 - 2. Identify required lines, levels, contours, and datum.

1.03 SUBMITTALS

- A. Informational submittals:
 - 1. Excavation plan, detailing the following:
 - a. Method and sequencing information.
 - b. Proposed locations of stockpiled excavated materials.
 - c. Proposed on-site and off-site spoil disposal sites.
 - d. Number, types, and sizes of equipment proposed to perform excavations.
 - e. Reclamation of on-site spoil disposal areas.

1.04 WEATHER LIMITATIONS

- A. Material excavated when frozen or when air temperature is less than 32 degrees F shall not be used as fill or backfill until material completely thaws.
- B. Material excavated during inclement weather shall not be used as fill or backfill until after material drains and dries sufficiently for proper compaction.

1.05 SEQUENCING AND SCHEDULING

- A. Comply with 16 NYCRR 753 and call Dig Safely New York not less than three working days before performing Work.

- B. Request underground utilities to be located and marked within and surrounding construction areas.
- C. Coordinate activities with utility owners.
- D. Demolition: Coordinate Work as shown and as specified in Section 02 41 00, Demolition with excavations.
- E. Clearing and Grubbing: Complete applicable Work specified in Section 31 10 00, Site Clearing prior to excavating.
- F. Dewatering: Conform to applicable requirements of Section 31 23 19, Dewatering, prior to excavating.
- G. Excavation support: Install and maintain, as specified in Section 31 41 00, Shoring, as necessary to support sides of excavations and prevent detrimental settlement and lateral movement of existing facilities, adjacent property, and completed Work.

1.06 DEFINITIONS

- A. Earth: all materials such as sand, gravel, clay loam, pavements, ashes, cinders, mulch, roots, or pieces of timber, rippable rock, not requiring blasting, barring or wedging from its original bed, and specifically excludes all ledge and bed rock and individual boulders, concrete, or masonry larger than one-half cubic yard in volume.
- B. Backfill: selected materials for the backfilling of excavations and trenches up to the original surface of the ground or to other grades as may be shown or directed.
- C. Spoil: surplus excavated materials not required or not suitable for backfills or embankments.
- D. Embankments: fills constructed of selected materials above the original surface of the ground.
- E. Rock: ledge or bedrock requiring blasting, barring, or wedging from its original bed and individual boulders, concrete or masonry larger than one-half cubic yard in volume.

PART 2 - PRODUCTS

(Not used)

PART 3 - EXECUTION

3.01 GENERAL

- A. Perform all excavations in accordance with 16 NYCRR 753.

- B. Designate a "Competent Person" who shall be responsible for inspections of excavations on a daily basis and document and maintain daily trenching and excavation logs per OSHA 29 CFR 1926
- C. Excavate to lines, grades, and dimensions shown and as necessary to accomplish the Work.
 - 1. Excavate to within tolerance of +/-0.1 foot, except where dimensions or grades are shown or specified as maximum or minimum.
 - 2. Allow for forms, sheeting/shoring, dewatering, working space, granular base, topsoil, and similar items, wherever applicable.
 - 3. Trim to neat lines where concrete is to be deposited against earth.
- D. Slope banks with machine to angle of repose or less until shored.
- E. Grade top perimeter of excavation to prevent surface water from draining into excavation.
- F. Overexcavation:
 - 1. Do not overexcavate without written authorization of Engineer.
 - 2. Backfill unauthorized overexcavations with material as directed by Engineer at no additional cost to Owner.
- G. Notify utility company to remove and relocate utilities.
- H. Repair or replace items indicated to remain damaged by excavation.
- I. Use of explosives is not permitted.
- J. Notify Engineer of unexpected subsurface conditions.

3.02 EXCAVATION FOR STRUCTURES

- A. Excavate to specified foundation elevation utilizing a flat bottom bucket.
- B. Compact disturbed load bearing soil in direct contact with foundations to original bearing capacity in accordance with Section 31 23 23, Fill.
- C. Bearing capacity of footing subgrades shall be verified by a geotechnical engineer.
- D. Soft spots or soil that is determined to have inadequate capacity shall be overexcavated and replaced as specified in Section 31 05 16, Aggregates for Earthwork and placed and compacted in accordance with Section 31 23 23, Fill.
- E. Footing subgrades that become saturated or unstable shall be over excavated 6-inches and replaced with a 6-inch layer of Structural Fill.
- F. Provide 12 inches minimum clearance between excavation faces and footing formwork.
- G. Under cutting excavation faces for extended footings is not permitted.

3.03 UNCLASSIFIED EXCAVATION

- A. Excavation is unclassified.
- B. Complete all excavation regardless of the type, nature, or condition of the materials encountered.

3.04 EMBANKMENT AND CUT SLOPES

- A. Shape, trim, and finish embankments and cut slopes to conform to lines, grades, and cross-sections shown, with proper allowance for topsoil or slope protection, where shown.
- B. Remove stones and rock that exceeds 3-inch diameter and that are loose and may roll down slope.
- C. Remove exposed roots from cut slopes.
- D. Round tops of cut slopes in soil to not less than 6-foot radius, provided such rounding does not extend off-site or outside easements and rights-of-way, or adversely impacts existing facilities, adjacent property or completed Work.

3.05 STOCKPILING EXCAVATED MATERIAL

- A. Stockpile excavated material that is suitable for use as fill or backfill until material is needed.
- B. Post signs indicating proposed use of material stockpiled.
 - 1. Signs shall be readable from all directions of approach to each stockpile.
 - 2. Signs shall be clearly worded and readable by equipment operators from their normal seated position.
- C. Confine stockpiles to within easements, rights-of-way, and approved work areas.
- D. Do not obstruct roads or streets.
- E. Do not stockpile excavated material adjacent to trenches and other excavations, unless excavation side slopes and excavation support systems are designed, constructed, and maintained for stockpile loads.
- F. Do not stockpile excavated materials near or over existing facilities, adjacent property, or completed Work, if weight of stockpiled material could induce excessive settlement.
- G. Do not stockpile excavated material within the drip line of existing trees.

3.06 FIELD QUALITY CONTROL

- A. Perform inspection of excavation and controlled fill operations to confirm stability and accordance with OSHA standards and Laws and Regulations.

- B. Footing subgrades shall be verified for specified bearing capacity under all buildings by a geotechnical engineer.

3.07 PROTECTION

- A. Underpin adjacent structures which may be damaged by excavation work.
- B. Prevent displacement or loose soil from falling into excavation
 1. Maintain soil stability.
 2. All material which slides, falls, or caves into excavation due to any cause whatsoever shall be removed and disposed off-site.
- C. Protect bottom of excavations and soil adjacent to and beneath foundation from freezing, oversaturation, and construction traffic.
- D. Protect structures, utilities and other facilities indicated to remain from damage caused by settlement, lateral movement, undermining, washout, and other hazards created by earth operations.
- E. Protect plant life, lawns, rock outcroppings and other features remaining as portion of final landscaping.
- F. Protect bench marks, survey control points, existing structures, fences, sidewalks, paving and curbs from excavating equipment and vehicular traffic.
- G. Repair or replace items indicated to remain damaged by excavation.

3.08 DISPOSAL OF SPOIL

- A. Lawfully dispose of excavated materials which are unsuitable or exceed quantity needed for fill or backfill off-site.
- B. Dispose of debris resulting from removal of underground facilities, as specified in Section 02 41 16, Demolition for demolition debris.
- C. Dispose of debris resulting from removal of organic matter, trash, refuse, and junk as specified in Section 31 10 00, Site Clearing, for clearing and grubbing debris.

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SECTION 31 23 16.13

TRENCHING

PART 1 - GENERAL

1.01 SUMMARY

- A. Section includes:
 - 1. Excavating trenches for utilities as indicated on the Drawings or as directed by Engineer.
 - 2. Backfill and compaction extending up to, and including, initial backfill.
 - 3. Excavation for associated site structure such as manholes, inlets, and catch basins are specified in Section 31 23 16, Excavation.

1.02 REFERENCE STANDARDS

- A. ASTM International (ASTM):
 - 1. ASTM D1557, Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft³).
 - 2. ASTM D6938, Standard Test Methods for In-Place Density and Water Content of Soil and Soil-Aggregate by Nuclear Methods (Shallow Depth).
- B. Occupational Safety and Health Administration (OSHA):
 - 1. 29 CFR 1926.650, Safety and Health Regulations for Construction.

1.03 SUBMITTALS

- A. Comply with Section 01 33 00, Submittal Procedures.
- B. Action submittals:
 - 1. Report and certification of gradation for each type of fill.
 - 2. Field density reports.
 - 3. One optimum moisture-maximum density curve for each type of fill.
 - 4. Schedule replacement operations.

1.04 DEFINITIONS

- A. Utility: A buried pipe, duct, conduit, or cable.
- B. Pipe Zone: trench fill zone between the bottom of the pipe and the top of the pipe extending for the entire trench width.

1.05 COORDINATION

- A. Verify Work associated with lower elevation utilities is complete before placing higher elevation utilities.

PART 2 - PRODUCTS

2.01 FILL MATERIALS

- A. Concrete: Comply with Section 03 30 53, Miscellaneous Cast-in-Place Concrete.
- B. General Fill and Select General Fill: Comply with Section 31 05 13, Soils for Earthwork.
- C. Structural Fill: Comply with Section 31 05 16, Aggregates for Earthwork.
- D. Granular Fill: Comply with Section 31 05 16, Aggregates for Earthwork.
- E. Pipe Bedding: Comply with Section 31 05 16, Aggregates for Earthwork.

2.02 ACCESSORIES

- A. Geotextile Fabric: As specified in Section 31 05 19.13, Geotextiles for Earthwork.

PART 3 - EXECUTION

3.01 LINES AND GRADES

- A. Lay utilities to lines and grades indicated on Drawings.
- B. Engineer reserves the right to changes in lines, grades, and depths of utilities when changes are required for Project conditions.
- C. Use laser-beam instrument with qualified operator to establish lines and grades.

3.02 PREPARATION

- A. Mark all planned excavations with white paint.
- B. Comply with 16 NYCRR 753 and call Dig Safely New York at 811 not less than three (3) working days before performing Work.
- C. Request underground utilities to be located and marked within and surrounding construction areas.
- D. Coordinate activities with utility owners.
- E. Identify required lines, levels, contours, and datum locations.
- F. Protect plant life, lawns, and other features remaining as portion of final landscaping.
- G. Protect bench marks, existing structures, fences, sidewalks, paving, and curbs from excavating equipment and vehicular traffic.
- H. Maintain and protect above and below grade utilities indicated to remain.

- I. Establish temporary traffic control when trenching is performed in public right-of-way.
- J. Relocate controls and reroute traffic as required during progress of Work.

3.03 TRENCHING

- A. Excavate subsoil required for utilities.
- B. Remove lumped subsoil, boulders, and rock up of 1/6 cubic yards, measured by volume.
- C. All excavations within 24 inches of existing water, gas, or electric lines shall be performed according to Dig Safely New York requirements.
- D. Do not advance open trench more than 300 feet ahead of installed utility, nor leave unfilled for more than 100 feet in the rear thereof without consent of the Engineer.
- E. Excavation of the trench shall be fully completed at least 20 feet in advance of the utility installation, unless specifically permitted otherwise.
- F. Trenches shall not be left opened overnight.
- G. Cut trenches sufficiently wide to enable installation and allow inspection.
- H. Remove water or materials that interfere with Work.
- I. Excavate bottom of trenches minimum distance wider than outside diameter of pipe on each side as shown on the Drawings.
- J. Ledge rock, shale, boulders and large stones shall be removed to provide minimum bottom and side clearances, for the size of pipe being laid in each case, as follows:
 - 1. Minimum clearance:
 - a. Below pipe: 6 inches.
 - b. At sides: 6 inches.
- K. Where concrete embedment or cradle is to be placed, it shall be placed in accordance with the details shown on the Drawings.
- L. Excavate trenches to depth indicated on the Drawings.
- M. Provide a flat bottom with uniform and continuous bearing and support for bedding material, piping and/or utilities.
- N. Do not interfere with 45-degree bearing splay of foundations.
- O. When Project conditions permit, slope side walls of excavation starting 24 inches above top of pipe.
- P. When side walls cannot be sloped, provide sheeting and shoring to protect excavation as specified in this Section.

- Q. Unsuitable subgrade:
1. When subsurface materials at bottom of trench are loose or soft, excavate to greater depth as directed by Engineer until suitable material is encountered.
 2. Cut out soft areas of subgrade not capable of compaction in place as directed by Engineer and place a single layer of stabilization fabric to cover the entire over-excavated surface area]
 3. Backfill with Structural Fill.
- R. Hand trim for bell and spigot pipe joints.
- S. Remove loose material.
- T. Grade bottom of trench by hand to be specified line and grade with proper allowance for pipe thickness and pipe base.
- U. All trenches shall be so graded that the spigot end of the pipe will be accurately centered in the adjacent pipe bell when laid, without raising the pipe off the trench bottom.
- V. Re-grading of a trench bottom which is too high will be permitted.
- W. Correction of a subgrade that is too low shall be done only by placing and compacting Structural Fill material in accordance with Section 31 05 16, Aggregates for Earthwork over the entire width of the trench and regrading.
- X. Trench bottom shall form a continuous and uniform bearing and support for pipe between bell holes.
- Y. Concrete encasement:
1. Where concrete cradle or encasement is required, the trench subgrade elevation will be determined by the required concrete section in each case.
 2. Unless otherwise authorized by Engineer, concrete cradle or encasement shall extend across the full width of the trench as excavated, and the concrete therein shall be poured directly against vertical trench banks.
 3. In the case of concrete cradle or encasement of pipe in a sheeted trench, the concrete may be poured directly against sheeting which is to be left in place in the trench, as specified.

3.04 TRENCH WIDTH

- A. Minimum width of trenches shall be as shown on the Drawings.
- B. Increase trench widths by thickness of sheeting.
- C. Maximum trench width: Unlimited, unless otherwise shown or specified, or unless excess width will cause damage to existing facilities, adjacent property, or completed Work.

3.05 PIPE BEDDING GROOVES FOR NON-PERFORATED DRAIN LINES

- A. Semicircular, trapezoidal, or 90-degree-V.

- B. Excavated or plowed into trench bottom.
- C. Forming groove by compaction is not acceptable.

3.06 TEST PITS

- A. For the purpose of locating underground obstructions, Contractor shall make such excavations in advance of the Work.

3.07 SHEETING AND SHORING

- A. Comply with Section 31 41 00, Shoring.
- B. Sheet, shore, and brace excavations to prevent danger to persons, structures and adjacent properties and to prevent caving, erosion, and loss of surrounding subsoil.
- C. In no case will bracing be permitted against pipes or structures in trenches or other excavations.
- D. Contractor shall be solely responsible for the safety and adequacy of all sheeting and bracing.
- E. Repair damage caused by failure of sheeting, shoring, or bracing and for settlement of filled excavations or adjacent soil.
- F. Repair damage to new and existing Work from settlement, water or earth pressure or other causes resulting from inadequate sheeting, shoring, or bracing.

3.08 PIPE BEDDING

- A. Install to full width of trench, as detailed on the Drawings.
- B. Compact to at least 95 percent of its maximum density as determined by ASTM D1557.
- C. Ensure that no unfilled or uncompacted areas occur beneath pipe.
- D. Bell (Joint) holes: At each joint, dig bell holes of ample dimensions in bottom of trench, and at sides where necessary, to permit joint to be made properly and to permit easy visual inspection of entire joint.
- E. Protect all utilities from lateral displacement and possible damage resulting from superimposed backfill loads, impact or unbalanced loading during backfilling operations by being adequately embedded in suitable pipe embedment material.
- F. Concrete cradles and pipe encasement:
 - 1. Install concrete cradles and encasement where shown on the Drawings or ordered by Engineer.
 - 2. Brace pipe in all directions to prevent flotation prior to concrete placement.

3.09 BACKFILLING

- A. General:
 - 1. Backfill trenches to contours and elevations with unfrozen fill materials.
 - 2. Install metallic tape in accordance with Section 33 05 97, Identification Devices for Buried Utilities.
 - 3. Systematically backfill to allow maximum time for natural settlement.
 - 4. Do not backfill over porous, wet, frozen, or spongy subgrade surfaces.
 - 5. Maintain optimum moisture content of fill materials to attain required compaction density.
 - 6. When for any reason the work is left unfinished, all trenches and excavations shall be filled and all roadways and sidewalks left unobstructed with their surfaces in a safe and satisfactory condition.
 - 7. Protect and cover open trench to prevent danger to the public with H20 load rated road plates.
- B. Haunching:
 - 1. Place in 6-inch lifts compacted to at least 95 percent of its maximum density, as determined by ASTM D1557.
 - 2. Place such that even distribution is maintained on each side of the pipe at all times.
- C. Initial Backfill:
 - 1. Place in 6-inch lifts compacted to at least 95 percent of its maximum density, as determined by ASTM D1557 unless otherwise specified.
 - 2. Place such that even distribution is maintained on each side of the pipe at all times.
- D. Final Backfill shall be in accordance with Section 31 23 23, Fill.

3.10 DRAINAGE

- A. All material deposited in roadway ditches or other water courses crossed by the line of trench or near a structure shall be removed immediately after backfilling is completed and the section grades and contours of such ditches or water course restored to their original condition, in order that surface drainage will be obstructed no longer than necessary.
- B. Backfilling of trenches for pipes installed beneath or across roadways, driveways, walks and other traffic ways adjacent to drainage ditches and water courses shall not be done prior to the completion of backfilling to the original ground surface of the trench on the upstream side of such traffic-way in order to prevent the impounding of water at any point after the pipe has been laid, and all necessary bridges and other temporary structures required to maintain traffic across such unfilled trenches shall be constructed and maintained.
- C. All backfilling shall be done in such a manner that water will not accumulate in unfilled or partially filled trenches.

- D. When trenches are constructed in or across roadway ditches or other water courses, the backfill shall be protected from surface erosion by adequate and environmentally sound means.

3.11 RESTORATION OF SURFACES

- A. The various types of street surface, gutters and culverts, disturbed, damaged or destroyed during the performance of the Work under Contractor, shall be restored and maintained as specified herein and as shown and directed.
- B. Restoration of property:
 - 1. Contractor shall restore all pavement, driveways, sidewalks, gutters, culverts, trees, shrubs, lawns, landscaped areas and any other public or private property damaged as a result of Work under this Contract.
 - 2. The quality of materials and workmanship used in the restoration shall produce a condition equal to or better than the condition before the work began.
- C. Time of replacement:
 - 1. In general, permanent restoration of street surfaces will not be permitted until one month's time has elapsed after trenches have been completely backfilled as specified.
 - 2. A greater length of time, but not more than nine 9 months, may be allowed to elapse before permanent restoration of street surfaces is undertaken, if, in the opinion of Engineer such additional time is required for complete shrinkage and settlement of the backfill.
 - 3. If Contractor is permitted to replace pavement at any time by Engineer, it shall not relieve Contractor of responsibility to make repairs to damage caused by settlement for a period of one year, or as elsewhere specified.
- D. Schedule of operation: Develop a schedule of replacement operations and submit for approval.
- E. Temporary resurfacing and repaving:
 - 1. Immediately upon completion of refilling of the trench or excavation, Contractor shall place a temporary pavement over all disturbed areas of the streets, driveways, alleys and other traveled places where the original surface has been disturbed by his operations.
 - 2. The temporary re-pavement shall be of a character satisfactory in all respects and safe for public travel.
 - 3. The temporary resurfacing shall consist of a minimum of six inches of well-graded broken stone with such additional depth as is necessary to withstand the traffic to which it is subjected.
 - 4. Where concrete pavements are removed, the broken stone shall be surfaced with "cold patch".
 - 5. The surface of the temporary repaving shall conform to the street grades.
 - 6. Mounding up of the material over the trench and covering the same with loose broken stone will not be considered as compliance with the above requirements.
- F. Dust control:

1. Treat all surfaces, not covered with cold patch, as approved by Engineer.
 2. Use of calcium chloride and/or petroleum products for dust control is prohibited.
- G. Maintenance:
1. Maintain temporary re-pavement in a safe and satisfactory condition until permanent repaving is complete.
 2. Contractor shall immediately remove and restore to a satisfactory condition any and all such resurfacing and re-pavements as shall become unsatisfactory and not in accordance with the terms and intent of the Contract Documents.
- H. Preparation for Permanent Replacement:
1. After due notice and within the time specified, the temporary broken stone or gravel pavement shall be prepared as the base to receive the permanent pavement in accordance with Section 32 11 23, Aggregate Base Course for Exterior Improvements.
 2. It shall be brought to the required grade and cross section and thoroughly compacted before placing the permanent pavement.
 3. Service boxes, manhole frames and covers, and similar structures, within the area of pavement to be replaced and not conforming to the new work, shall be set to established grade by Contractor.

3.12 FIELD QUALITY CONTROL

- A. Perform in place compaction tests in accordance with the following:
1. Density Tests: ASTM D1557.
 2. Moisture Tests: ASTM D3017.
- B. When tests indicate Work does not meet specified requirements, remove Work, replace, compact, and retest.
- C. Frequency of tests: Each lift every 100 linear feet of trench.
- D. The following reports in quadruplicate shall be submitted directly to the Engineer:
1. Report and Certification of Gradation.
 2. Field Density Reports.
 3. One optimum moisture-maximum density curve for each type of fill.

3.13 PROTECTION OF FINISHED WORK

- A. Reshape and re-compact fills subjected to vehicular traffic during construction.

3.14 TRENCH BACKFILL SCHEDULE

- A. Pipe and Buried Utility Foundations: Structural Fill.
- B. Bedding:
1. Pipe Bedding Material: All piping unless otherwise specified extending 6-inches below the outside diameter of the pipe barrel.
- C. Haunching:

1. Pipe Bedding Material: All piping unless otherwise specified.

D. Initial Backfill:

1. Pipe Bedding Material: All piping unless otherwise specified.

E. Final Backfill:

1. Structural Fill.

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SECTION 31 23 19

DEWATERING

PART 1 - GENERAL

1.01 SUMMARY

- A. Section includes:
 - 1. Dewatering system.
 - 2. Surface water control system.
 - 3. Monitoring wells.
 - 4. System operation and maintenance.
 - 5. Water disposal.

1.02 REFERENCE STANDARDS

- A. The following is a list of standard which may be referenced in this Section:
 - 1. ASTM International (ASTM):
 - a. C33, Standard Specification for Concrete Aggregates.

1.03 SUBMITTALS

- A. Comply with Section 01 33 00, Submittal Procedures.
- B. Informational submittals:
 - 1. Submit proposed dewatering plan, including the following:
 - a. Product information for sediment control.
 - b. Pump product information, cut sheets, and performance curves.

1.04 DEFINITIONS

- A. Dewatering includes the following:
 - 1. Lowering of ground water table and intercepting horizontal water seepage to prevent ground water from entering excavations and trenches.
 - 2. Reducing piezometric pressure within strata to prevent failure or heaving of excavations and trenches.
 - 3. Disposing of removed water.
 - 4. Surface Water Control: Removal of surface water within open excavations or cofferdams.

1.05 SYSTEM DESCRIPTION

- A. Provide dewatering and surface water control systems to permit Work to be completed on dry and stable subgrade.
- B. Furnish standby equipment stored at Project site and ready for immediate use upon failure of dewatering equipment.

1.06 PERFORMANCE REQUIREMENTS

- A. Design dewatering systems to:
 - 1. Lower water table within areas of excavation to minimum of 2 feet below bottom of excavation to permit Work to be completed on dry and stable subgrade.
 - 2. Relieve hydrostatic pressures in confined water bearing strata below excavation to eliminate risk of uplift or other instability of excavation.
 - 3. Prevent damage to adjacent properties, buildings, structures, utilities, and facilities from construction operations.
 - 4. Prevent loss of fines, quick condition, or softening of foundation subgrade.
 - 5. Maintain stability of sides and bottoms of excavations and trenches; face, walls, and bottoms of tunnels; and side and bottoms of shafts.
 - 6. Comply with water quality criteria specified in the discharge permit for the receiving stream.
- B. Design surface water control systems to:
 - 1. Collect and remove surface water and seepage entering excavation.
 - 2. Comply with water quality criteria specified in the discharge permit for the receiving stream.

1.07 QUALITY ASSURANCE

- A. Comply with authorities having jurisdiction for the following:
 - 1. Drilling and abandoning of wells used for dewatering systems.
 - 2. Water discharge and disposal from pumping operations.
 - 3. Assume sole responsibility for dewatering and surface water control systems and for loss or damage resulting from partial or complete failure of protective measures and settlement or resultant damage caused by ground water control operations.

1.08 SEQUENCING

- A. Sequence work to obtain required permits before start of dewatering operations.
- B. Sequence Work to install and test monitoring systems minimum 3 days before testing and operating dewatering systems.
- C. Sequence work to install and test dewatering and surface water control systems minimum 3 days before starting excavation, trenching, tunneling, and/or shaft drilling.

PART 2 - PRODUCTS

2.01 DEWATERING EQUIPMENT

(Not used)

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Comply with 16 NYCRR 753 and call Dig Safely New York Utility Line Information service at 811 not less than three (3) working days before performing Work.
- B. Request underground utilities to be located and marked within and surrounding construction areas.

3.02 PREPARATION

- A. Protect existing adjacent buildings, structures, and improvements from damage caused by dewatering operations.

3.03 DEWATERING SYSTEM

- A. Locate system components to allow continuous dewatering operations without interfering with installation of permanent Work and existing public right-of-way, sidewalks and adjacent buildings, structures, and improvements.
- B. Water shall not be allowed to rise over or come in contact with any masonry, concrete or mortar, until at least twenty-four (24) hours after placement, and no stream of water shall be allowed to flow over such work until such time as the Engineer may permit.
- C. Unless otherwise specified, all excavations which extend down to below the ground water elevation at the sites of structures shall be dewatered by lowering and maintaining the ground water beneath such excavations at an elevation not less than that specified herein at all times when work thereon is in progress, during subgrade preparation and the placing of structures or pipe thereon.
- D. Install wellpoints to stabilize the subgrade when an upward pressure or flow of water in combination with a fine-grained subsurface material may cause a quick condition.
- E. Wellpoint headers, points and other pertinent equipment shall not be placed within the limits of the excavation in such a manner or location as to interfere with the laying of pipe or trenching operations or with the excavation for and construction of other structures.
- F. In areas where ground water enters the excavation but does not cause a quick condition, the ground water may be removed by any practical method which does not damage the subgrade, cause the same to become unstable or interferes with the construction operations.

3.04 SURFACE WATER CONTROL SYSTEM

- A. Provide ditches, berms, and other devices to divert and drain surface water from excavation area.

- B. Divert surface water and seepage water within excavation areas into sumps and pump water into drainage channels, storm drains, and/or settling basins in accordance with requirements of agencies having jurisdiction.
- C. Control and remove unanticipated water seepage into excavation.

3.05 SYSTEM OPERATION AND MAINTENANCE

- A. The Contractor shall at all times during construction provide and maintain proper and satisfactory means and devices for the removal of all water entering the excavations, and shall remove all such water as fast as it may collect, in such manner as shall not interfere with the prosecution of the work or the proper placing of pipe, masonry, concrete, structures or other work.
- B. Where wellpoints are used, the groundwater table shall be continuously (day and night) maintained to an elevation of not less than twenty-four (24) inches below the excavation and when subgrade is reached the ground water shall be maintained not less than twenty-four (24) inches below the subgrade.
- C. The ground water control requirements specified for well-pointing operations apply to other dewatering methods.
- D. Operate dewatering system continuously until backfill is minimum 1 foot above normal ground water table elevation and structures will not float.
- E. Suitable stand-by pumping equipment shall be provided to insure the maintenance of the specified lowering of the water table.
- F. Provide supervision of dewatering system by personnel skilled in operation, maintenance, and replacement of system components.
- G. Conduct daily observation of dewatering system and monitoring system.
- H. Make required repairs and perform scheduled maintenance.
- I. Fill fuel tanks before tanks reach 25 percent capacity.
- J. Modify dewatering and surface water control systems when operation causes or threatens to cause damage to new construction, existing site improvements, adjacent property, or adjacent water wells.
- K. Correct unanticipated pressure conditions affecting dewatering system performance.
- L. Do not discontinue dewatering operations without Engineer's approval.
- M. Repair all damage caused by improper management of water.

3.06 WATER DISPOSAL

- A. Water pumped or drained from excavations, or any sewers, drains, or water courses encountered in the work, shall be disposed of in a suitable and environmental manner

without injury to adjacent property, the work under construction, or to pavements, roads and drives.

- B. No water shall be discharged into sanitary sewers.
- C. Sanitary sewage shall be pumped to sanitary sewers or shall be disposed of by an approved method.

3.07 SYSTEM REMOVAL

- A. Remove dewatering and surface water control systems after dewatering operations are discontinued.

3.08 FIELD QUALITY CONTROL

- A. After dewatering system is installed, perform pumping test to determine when selected pumping rate lowers water level in well below pump intake.
- B. Adjust pump speed, discharge volume, or both to ensure proper operation of each pump.

+ + END OF SECTION + +

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SECTION 31 23 23

FILL

PART 1 - GENERAL

1.01 SUMMARY

- A. Section includes:
 - 1. Backfilling Site structures to subgrade elevations.
 - 2. Fill under paving.
 - 3. Fill for over-excavation.
- B. Related Work specified elsewhere:
 - 1. Section 31 05 13, Soils for Earthwork.
 - 2. Section 31 05 16, Aggregates for Earthwork.
 - 3. Section 31 05 19.13, Geotextiles for Earthwork.

1.02 REFERENCE STANDARDS

- A. ASTM International (ASTM):
 - 1. D1557, Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/cu. ft).
 - 2. D6938, Standard Test Methods for In-Place Density and Water Content of Soil and Soil-Aggregate by Nuclear Methods (Shallow Depth).

1.03 SUBMITTALS

- A. Comply with Section 01 33 00, Submittal Procedures.
- B. Material source: Submit name of imported fill materials suppliers.

1.04 DEFINITIONS

- A. Optimum moisture: the moisture content in a cohesive soil that results in a maximum compacted density, in accordance with ASTM D1557.
- B. Relative compaction:
 - 1. The reduction in volume of aggregates and aggregate mixes after vibratory compaction, expressed as a percent volume reduction from a loose, dumped state to a compacted state.
 - 2. Relative compaction is only measured on cohesionless soils.

PART 2 - PRODUCTS

2.01 FILL MATERIALS

- A. General Fill: As specified in Section 31 05 13, Soils for Earthwork.
- B. Structural Fill: As specified in Section 31 05 16, Aggregates for Earthwork.

- C. Granular Fill: As specified in Section 31 05 16, Aggregates for Earthwork.

2.02 ACCESSORIES

- A. Filter Fabric: As specified in Section 31 05 19.13, Geotextiles for Earthwork.
- B. Stabilization Fabric: As specified in Section 31 05 19.13, Geotextiles for Earthwork.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Verify that sub-drainage, dampproofing, or waterproofing installation has been inspected.
- B. Verify underground tanks are anchored to their own foundations to avoid flotation after backfilling.
- C. Verify structural ability of unsupported walls to support loads imposed by fill.

3.02 PREPARATION

- A. Compact subgrade to density requirements for subsequent backfill materials.
- B. Unsuitable Materials:
 - 1. Cut out soft areas of subgrade not capable of compaction in place.
 - 2. Backfill with Structural Fill and compact to density equal to or greater than requirements for subsequent fill material.
- C. Proof roll to identify soft spots; fill and compact to density equal to or greater than requirements for subsequent fill material.

3.03 BACKFILLING

- A. Backfill areas to contours and elevations with unfrozen materials.
- B. Systematically backfill to allow maximum time for natural settlement.
- C. Do not backfill over porous, wet, frozen, or spongy subgrade surfaces.
- D. Place material in continuous layers as follows if not specified elsewhere:
 - 1. General Fill: Maximum 8 inches compacted depth.
 - 2. Structural Fill: Maximum 6 inches compacted depth.
 - 3. Granular Fill: Maximum 6 inches compacted depth.
- E. Compaction:
 - 1. Underneath Structures, Paving, Sidewalks, Final Backfill for Trenches, and all Other Areas Not Specifically Identified: Compact to at least 95 percent of its maximum density, as determined by ASTM D1557.
 - 2. Underneath Grassed Areas: Compact to at least 90 percent of its maximum density, as determined by ASTM D1557.

- F. Employ placement method that does not disturb or damage other Work.
- G. Maintain optimum moisture content of backfill materials to attain required compaction density.
- H. Remove surplus backfill materials from Site at no additional cost to Owner.
- I. Leave fill material stockpile areas free of excess fill materials.

3.04 TOLERANCES

- A. Top surface of backfilling under paved areas: Plus or minus 1 inch from required elevations.
- B. Top Surface of general backfilling: Plus or minus 1 inch from required elevations.

3.05 FIELD QUALITY CONTROL

- A. Perform laboratory material tests according to ASTM D1557.
- B. Perform in place compaction tests according to following:
 - 1. Density tests: in accordance with ASTM D6938.
 - 2. Moisture Tests: in accordance with ASTM D6938.
- C. When tests indicate Work does not meet specified requirements, remove Work, replace, and retest.
- D. Frequency of Tests: once per lift.
- E. Proof roll compacted fill surfaces under paving.

3.06 PROTECTION OF FINISHED WORK

- A. Reshape and re-compact fills subjected to vehicular traffic.

3.07 FILL SCHEDULE

- A. Under Structures: Granular Fill
- B. Under Paved Areas: Structural Fill.
- C. Side Backfill Adjacent to Structures: Drainage Fill.
- D. Over-Excavated Areas:
 - 1. Underneath Structures: Structural Fill.
 - 2. Other Areas: General Fill.
- E. Other Areas: General Fill.

+ + END OF SECTION + +

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SECTION 32 11 23

AGGREGATE BASE COURSES FOR EXTERIOR IMPROVEMENTS

PART 1 - GENERAL

1.01 SUMMARY

- A. Section includes performance and material requirements for aggregate subbase for roadway construction.

1.02 REFERENCE STANDARDS

- A. ASTM International (ASTM):
 - 1. D1557, Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/cu. ft).
 - 2. D2940, Standard Specification for Graded Aggregate Material for Bases or Subbases for Highways or Airports.
 - 3. D6938, Standard Test Methods for In-Place Density and Water Content of Soil and Soil-Aggregate by Nuclear Methods (Shallow Depth).

1.03 SUBMITTALS

- A. Comply with Section 01 33 00, Submittal Procedures.
- B. Materials Source: Name of aggregate materials suppliers.

1.04 QUALITY ASSURANCE

- A. Furnish each aggregate material from single source throughout Work.

PART 2 - PRODUCTS

2.01 AGGREGATE MATERIALS

- A. Subbase aggregate: Granular Fill as specified in Section 31 05 16, Aggregates for Earthwork.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Verify compacted substrate is dry and ready to support paving and imposed loads.
- B. Proof-roll substrate minimum two perpendicular passes with a 10-ton vibratory roller to identify soft spots.
- C. Remove soft substrate and replace with compacted structural fill as specified in Section 31 05 16, Aggregates for Earthwork.

- D. Verify substrate has been inspected, gradients and elevations are correct.

3.02 PREPARATION

- A. Correct irregularities in substrate gradient and elevation by scarifying, reshaping, and re-compacting.
- B. Do not place fill on soft, muddy, or frozen surfaces.
- C. Install geotextile or geogrid over subgrade as specified.

3.03 AGGREGATE PLACEMENT

- A. Place aggregate equal thickness layers to total compacted thickness indicated on Contract Drawings.
- B. Maximum Loose Lift Thickness: 8 inches.
- C. Level and contour surfaces to elevations, profiles, and gradients indicated.
- D. Add small quantities of fine aggregate to coarse aggregate when required to assist compaction.

3.04 COMPACTION

- A. Compact materials to at least 95 percent of maximum dry density as determined from test strip, according to ASTM D1557.
- B. Maintain optimum moisture content of fill materials to attain specified compaction density.
- C. Use mechanical tamping equipment in areas inaccessible to compaction equipment.

3.05 TOLERANCES

- A. Maximum variation from flat surface: 1/2 inch measured with 10 foot straight edge.
- B. Maximum variation from thickness: 1/4 inch.
- C. Maximum variation from elevation: 1/2 inch.

3.06 FIELD QUALITY CONTROL

- A. Compaction testing will be performed according to ASTM D6938.
- B. When tests indicate Work does not meet specified requirements, remove Work, replace and retest.
- C. Frequency of tests: One test for every 1000 sq. yd. of each layer compacted aggregate.

+ + END OF SECTION + +

SECTION 32 12 16

ASPHALT PAVING

PART 1 - GENERAL

1.01 SUMMARY

- A. Section includes all material and performance requirements for asphalt paving materials as called on the Drawings, including:
 - 1. Binder course.
 - 2. Top course.
 - 3. Tack coats.
- B. See Section 32 11 23, Aggregate Base Courses for Exterior Improvements for aggregate base course requirements.

1.02 REFERENCE STANDARDS

- A. The following is a list of standards which may be referenced in this Section:
 - 1. American Association of State Highway and Transportation Officials (AASHTO):
 - a. M17, Standard Specification for Mineral Filler for Bituminous Paving Mixtures.
 - b. M81, Standard Specification for Cut-Back Asphalt (Rapid Curing Type).
 - c. M82, Standard Specification for Cut-Back Asphalt (Medium Curing Type).
 - d. M140, Standard Specification for Emulsified Asphalt.
 - e. M208, Standard Specification for Cationic Emulsified Asphalt.
 - f. T166, Standard Method of Test for Bulk Specific Gravity of Compacted Asphalt Mixtures Using Saturated Surface-Dry Specimens.
 - g. T176, Standard Method of Test for Plastic Fines in Graded Aggregates and Soils by Use of the Sand Equivalent Test.
 - h. T230, Standard Method of Test for Determining Degree of Pavement Compaction of Bituminous Aggregate Mixtures.
 - i. T245, Standard Method of Test for Resistance to Plastic Flow of Bituminous Mixtures Using Marshall Apparatus.
 - j. T246, Standard Method of Test for Resistance of Deformation and Cohesion of Bituminous Mixtures by Means of Hveem Apparatus.
 - k. T247, Standard Method of Test for Preparation of Test Specimens of Bituminous Mixtures by Means of California Kneading Compactor.
 - l. T283, Standard Method of Test for Resistance of Compacted Bituminous Mixture to Moisture-Induced Damage.
 - m. T304, Standard Method of Test for Uncompacted Void Content of Fine Aggregate (Method A).
 - 2. Asphalt Institute (AI):
 - a. Manual Series No. 2 (SP-2), Mix Design Methods for Asphalt Concrete.

- b. Superpave Series No. 2 (SP-2), Superpave Mix Design.
- 3. ASTM International (ASTM):
 - a. D4318, Test Methods for Liquid Limit, Plastic Limit, and Plasticity Index of Soils.
 - b. D4791, Test Method for Flat Particles, Elongated Particles, or Flat and Elongated Particles in Coarse Aggregate.
 - c. D5281, Test Method for Determining the Percentage of Fractured Particles in Coarse Aggregate.
 - d. E329, Specification for Agencies Engaged in the Testing and/or Inspection of Materials Used in Construction.
- 4. State of New York Department of Transportation, Standard Specifications.

1.03 DEFINITIONS

- A. Combined aggregate: All mineral constituents of asphalt concrete mix, including mineral filler and separately sized aggregates.
- B. RAP: Reclaimed asphalt pavement.
- C. Standard Specifications: State of New York Department of Transportation (NYSDOT) Standard Specifications.

1.04 DESIGN REQUIREMENTS

- A. Prepare asphalt mix design in accordance the Standard Specifications.
- B. All thicknesses of pavement courses described herein or shown on the Drawings represent compacted thicknesses.

1.05 SUBMITTALS

- A. Comply with Section 01 33 00, Submittal Procedures.
- B. Informational submittals:
 - 1. Test report for asphalt concrete:
 - a. Submit a minimum 10 days prior to start of production.
 - b. Show appropriate test method(s) for each material and the test results.
 - 2. Manufacturer's Certificate of Compliance for the following materials:
 - a. Aggregate: gradation, source test results as defined in Section 703 of the NYSDOT Standard Specifications.
 - b. Asphalt for binder: Type, grade, and viscosity-temperature curve.
 - c. Tack coat: Type and grade of asphalt.
 - d. Additives.
 - e. Mix: Conforms to job-mix formula.
 - 3. Statement of qualification for independent testing laboratory.
 - 4. Test results:
 - a. Mix design.
 - b. Asphalt concrete core.
 - c. Gradation and asphalt content of uncompacted mix.

1.06 QUALITY ASSURANCE

- A. Perform work in accordance with the Standard Specifications as amended and/or supplement herein.
- B. Qualifications:
 - 1. Independent Testing Laboratory: In accordance with ASTM E329.
 - 2. Asphalt concrete mix formula shall be prepared by approved, certified independent laboratory under the supervision of a certified asphalt technician.
- C. Compaction control strip:
 - 1. General:
 - a. Construct to approximately 4,300 square feet in area and at a location that will become a portion of the completed paved area.
 - b. Thickness: Typical thickness to be paved on the Project.
 - 2. Rollers used for compaction:
 - a. Steel wheel rollers: Minimum static weight of 10 tons.
 - b. Pneumatic rollers: Capable of exerting pressure of 80 psi on bituminous surface.
 - c. Vibratory rollers: Minimum static weight of 6 tons, capable of applying a 10-ton impact force equipped with amplitude and frequency control specifically designed for compaction of bituminous mixtures.
 - 3. Compaction:
 - a. Compact bituminous mat using standard rolling pattern that covers the entire control strip. Request that the Engineer performs a final density test.
 - b. Continue rolling until no further compaction can be obtained as determined by field density testing.
 - c. Temperature and condition of bituminous mat shall be considered workable when further compaction can no longer be obtained.
 - 4. Target density determination:
 - a. Select test point near center of normal roller pass, but no closer than 2 feet from the edge of mat and 50 feet from each end of the control strip. Mat thickness at this point shall be at least the depth of the finished pavement.
 - b. This shall be the point at which no further densification can be obtained.
 - 5. Establish a new target density if changes are made in the mix design, nominal depth of mat being placed, aggregate source, or material properties.

1.07 AMBIENT CONDITIONS

- A. Weather and seasonal limitations shall comply with the NYSDOT Standard Specifications Section 402-3.01.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. Mixtures: designed in accordance with NYSDOT standards:
 - 1. Top Course: 9.5 mm F3 Top Course HMA.
 - 2. Binder Course: 19.0 mm F9 Binder Course HMA.
- B. Tack coat:
 - 1. Shall be applied between all lifts of HMA courses and where new asphalt meets existing asphalt or concrete.
 - 2. Comply with the requirements of NYSDOT Section 702 Bituminous Materials

2.02 ASPHALT CONCRETE MIX

- A. General:
 - 1. Mix formula shall not be modified except with written approval of the Engineer.
 - 2. Source changes:
 - a. Should material source(s) change, establish new asphalt concrete mix formula before new material(s) is used.
 - b. Perform check tests of properties of plant-mix bituminous materials on first day of production and as requested by the Engineer to confirm that properties are in compliance with design criteria.
 - c. Make adjustments in gradation or asphalt content as necessary to meet design criteria.
- B. Asphalt concrete: as specified in Section 403 of the Standard Specifications.
- C. Composition:
 - 1. Hot-mix asphalt plant of aggregate, mineral filler if required, and paving grade asphalt cement.
 - 2. The several aggregate fractions shall be sized, uniformly graded, and combined in such proportions that resulting mixture meets grading requirements of the mix.
- D. Aggregate:
 - 1. General: as specified in Section 703 of the Standard Specifications.
 - 2. RAP is permitted to be used in accordance with the Standard Specifications.
- E. Mineral filler: in accordance with Section 703-08 of the Standard Specifications.
- F. Asphalt cement: Paving grades 18-60, as specified in Section 702 of the Standard Specifications.

PART 3 - EXECUTION

3.01 GENERAL

- A. Traffic control:
 - 1. Comply with Section 01 50 00, Temporary Facilities and Controls.
 - 2. Minimize inconvenience to traffic, but keep vehicles off freshly-treated or paved surfaces to avoid pickup and tracking of asphalt.
- B. Driveways: Repave driveways from which pavement was removed. Leave driveways in as good or better condition than before start of construction.

3.02 LINE AND GRADE

- A. Provide and maintain intermediate control of line and grade, independent of underlying base, to meet finish surface grades and minimum thickness.
- B. Shoulders: Construct to line, grade, and cross-section shown.

3.03 APPLICATION EQUIPMENT

- A. In accordance with the Standard Specifications.

3.04 PREPARATION

- A. Prepare subgrade and subbase in accordance with the Standard Specifications and as supplemented herein.
- B. Existing Roadways:
 - 1. Modify profile by grinding, milling, or overlay methods as approved, to provide meet lines and surfaces and to produce smooth riding connection to existing facilities.
 - 2. Remove existing material to a minimum depth of 1 inch.
 - 3. Paint edges to meet line with tack coat prior to placing new pavement.
- C. Thoroughly coat edges of contact surfaces (curbs, manhole frames) with emulsified asphalt or asphalt cement prior to laying new pavement. Prevent staining of adjacent surfaces.

3.05 PAVEMENT APPLICATION

- A. General: Place asphalt concrete mixture on approved, prepared subbase or base as applicable in accordance with the Standard Specifications and as shown on the Drawings.
- B. Tack coat:
 - 1. Prepare material, as specified in the Standard Specifications prior to application.
 - 2. Apply uniformly to clean, dry surfaces avoiding overlapping of applications.
 - 3. Do not apply more tack coat than necessary for the day's paving operation.
 - 4. Touch up missed or lightly-coated surfaces and remove excess material.

5. Application rate: Minimum 0.05 to 0.15 gallons per square yard of asphalt (residual if diluted emulsified asphalt) of surface area or as specified in the Standard Specifications, whichever is greater.
- C. Pavement mix:
1. Prior to paving:
 - a. Sweep primed surface free of dirt, dust, or other foreign material.
 - b. Patch holes in tack-coated surface with asphalt concrete pavement mix.
 - c. Blot excess tack material with sand.
 2. Total compacted thickness: As shown on the Drawings.
 3. Apply such that meet lines are straight and edges are vertical.
 4. Collect and dispose of segregated aggregate from raking process. Do not scatter material over finished surface.
 5. Joints:
 - a. Offset edge of each layer a minimum of 6 inches so joints are not directly over the underlying layer.
 - b. Offset longitudinal joints in roadway pavements so longitudinal joints in wearing layer coincide with pavement centerlines and lane divider lines.
 - c. Form transverse joints by cutting back on the previous day's run to expose full vertical depth of layer.
 6. Succeeding lifts: Apply tack coat to pavement surface between each lift.
 7. After placement of pavement, seal meet line by painting a minimum of 6 inches on each side of the joint with cut-back or emulsified asphalt. Cover immediately with sand.
- D. Compaction:
1. Comply with the requirements of the Standard Specifications.
 2. Joint compaction shall follow the requirements the Standard Specifications.
- E. Tolerances: Tolerances shall comply with the Standard Specifications.
- F. Seal coat:
1. General: Apply seal coat of paving grade or emulsified asphalt to finished surface at longitudinal and transverse joints, joints at abutting pavements, areas where asphalt concrete was placed by hand, patched surfaces, and other areas as directed by the Engineer.
 2. Preparation:
 - a. Surfaces that are to be sealed shall be maintained free of holes, dry, and clean of dust and loose material.
 - b. Seal in dry weather and when temperature is above 35 degrees F.
 3. Application:
 - a. Fill cracks over 1/16-inch in width with asphalt-sand slurry or approved crack sealer prior to sealing.
 - b. When sealing patched surfaces and joints with existing pavements, extend a minimum of 6 inches beyond edges of patches.

3.06 PAVEMENT OVERLAY

- A. Preparation:

1. Pavement overlay preparation shall comply with the Standard Specifications.
- B. Application:
 1. Pavement overlay application shall comply with the Standard Specifications.

3.07 PATCHING

- A. Preparation:
 1. Remove damaged, broken, or unsound asphalt concrete adjacent to patches.
 2. Trim straight lines exposing smooth, sound, vertical edges.
 3. Prepare patch subgrade as specified in the Standard Specifications.
- B. Application:
 1. Patch thickness: 3 inches or thickness of adjacent asphalt concrete, whichever is greater.
 2. Place asphalt concrete mix across full width of patch in layers of equal thickness.
 3. Spread and grade asphalt concrete with hand tools or mechanical spreader, depending on size of area to be patched.
- C. Compaction: Follow compaction requirements specified in the Standard Specifications.
- D. Tolerances: Comply with the Standard Specifications.

3.08 FIELD QUALITY CONTROL

- A. General: Provide the services of an approved certified independent testing laboratory to conduct tests.
- B. Field density tests:
 1. Perform tests from cores or sawn samples in accordance with AASHTO T230 and AASHTO T166.
 2. Measure with properly operating and calibrated nuclear density gauge in accordance with ASTM D2950.
 3. Maximum density: In accordance with ASTM D2041, using sample of mix taken prior to compaction from the same location as density test sample.
- C. Testing frequency:
 1. Quality control test:
 - a. Asphalt content, aggregate gradation: once per every 500 tons of mix or once every 4 hours, whichever is greater.
 - b. Mix design properties, measured maximum (Rice's) specific gravity: Once every 1,000 tons or once every 8 hours, whichever is greater.
 2. Density tests: Once every 500 tons of mix or once every 4 hours, whichever is greater.

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SECTION 32 13 13
CONCRETE PAVING

PART 1 - GENERAL

1.01 SUMMARY

- A. This Section includes performance and material requirements for reinforced and unreinforced concrete paving for:
 - 1. Roadways.
 - 2. Parking areas.
 - 3. Driveway aprons.
 - 4. Sidewalks.
 - 5. Slip-formed curbs and gutters.
- B. Related Work specified elsewhere:
 - 1. Section 31 22 13, Subgrade Preparation.
 - 2. Section 32 11 23, Aggregate Base Courses.
 - 3. Section 32 17 23, Pavement Markings.
- C. Definitions:
 - 1. Standard Specifications: State of New York Department of Transportation (NYSDOT) Standard Specifications.

1.02 REFERENCE STANDARDS

- A. American Association of State Highway and Transportation Officials (AASHTO):
 - 1. M6, Standard Specification for Fine Aggregate for Portland Cement Concrete.
 - 2. M80, Standard Specification for Coast Aggregate for Portland Cement.
 - 3. M153, Standard Specification for Preformed Sponge Rubber and Cork Expansion Joint Fillers for Concrete Paving and Structural Construction.
 - 4. M157, Standard Specifications for Ready-Mix Concrete.
 - 5. M213, Standard Specification for Preformed Expansion Joint.
 - 6. M227, Standard Specification for Steel Bars, Carbon, Merchant Quality, Mechanical Properties.
 - 7. M324, Standard Specification for Joint and Crack Sealants, Hot Applied, for Concrete and Asphalt Pavements.
- B. American Concrete Institute (ACI):
 - 1. 301, Specifications for Structural Concrete.
 - 2. 305R, Hot Weather Concreting.
 - 3. 306R, Cold Weather Concreting.

4. 304, Guide for Measuring, Mixing, Transporting, and Placing Concrete.
 5. 308, Standard Practice for Curing Concrete.
 6. 318/318R, Building Code Requirements for Structural Concrete and Commentary.
 7. 325.9R, Guide for Construction of Concrete Pavements and Concrete Bases.
- C. ASTM International (ASTM):
1. A184, Standard Specification for Fabricated Deformed Steel Bar Mats for Concrete Reinforcement.
 2. A185, Standard Specification for Steel Welded Wire Fabric, Plain, for Concrete Reinforcement.
 3. A497, Standard Specification for Steel Welded Wire Fabric, Deformed, for Concrete Reinforcement.
 4. A615, Standard Specification for Deformed and Plain Billet-Steel Bars for Concrete Reinforcement.
 5. A706, Standard Specification for Low-Alloy Steel Deformed and Plain Bars for Concrete Reinforcement.
 6. A767, Standard Specification for Zinc-Coated (Galvanized) Steel Bars for Concrete Reinforcement.
 7. A775, Standard Specification for Epoxy-Coated Steel Reinforcing Bars.
 8. A884, Standard Specification for Epoxy-Coated Steel Wire and Welded Wire Reinforcement.
 9. A934, Standard Specification for Epoxy-Coated Prefabricated Steel Reinforcing Bars.
 10. C31, Standard Practice for Making and Curing Concrete Test Specimens in the Field.
 11. C33, Standard Specification for Concrete Aggregates.
 12. C39, Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens.
 13. C42, Standard Test Method for Obtaining and Testing Drilled Cores and Sawed Beams of Concrete.
 14. C88, Standard Test Method for Soundness of Aggregates by Use of Sodium Sulfate or Magnesium Sulfate.
 15. C94, Standard Specification for Ready-Mixed Concrete.
 16. C143, Standard Test Method for Slump of Hydraulic Cement Concrete.
 17. C150, Standard Specification for Portland Cement.
 18. C172, Standard Practice for Sampling Freshly Mixed Concrete.
 19. C173, Standard Test Method for Air Content of Freshly Mixed Concrete by the Volumetric Method.
 20. C231, Standard Test Method for Air Content of Freshly Mixed Concrete by the Pressure Method.
 21. C260, Standard Specification for Air-Entraining Admixtures for Concrete.

22. C309, Standard Specification for Liquid Membrane-Forming Compounds for Curing Concrete.
23. C494, Standard Specification for Chemical Admixtures for Concrete.
24. C595, Standard Specification for Blended Hydraulic Cements.
25. C618, Standard Specification for Coal Fly Ash and Raw or Calcined Natural Pozzolan for Use as a Mineral Admixture in Concrete.
26. C803, Test Method for Penetration Resistance of Hardened Concrete.
27. C805, Test Method for Rebound Number of Hardened Concrete.
28. C979, Standard Specification for Pigments for Integrally Colored Concrete.
29. C989, Standard Specification for Ground Granulated Blast-Furnace Slag for Use in Concrete and Mortars.
30. C1017, Standard Specification for Chemical Admixtures for Use in Producing Flowing Concrete.
31. C1064, Standard Test Method for Temperature of Freshly Mixed Hydraulic-Cement Concrete.
32. C1116, Standard Specification for Fiber-Reinforced Concrete and Shotcrete.
33. C1315, Standard Specification for Liquid Membrane-Forming Compounds Having Special Properties for Curing and Sealing Concrete.
34. C1330, Specification for Cylindrical Seal Backing for Use with Cold Liquid Applied Sealants.
35. C1371, Standard Test Method for Determination of Emittance of Materials Near Room Temperature Using Portable Emissometers.
36. C1549, Standard Test Method for Determination of Solar Reflectance Near Ambient Temperature Using a Portable Solar Reflectometer.
37. D920, Standard Specification for Elastomeric Joint Sealants.
38. D994, Standard Specification for Preformed Expansion Joint Filler for Concrete Paving and Structural Construction (Nonextruding and Resilient Bituminous Types).
39. D1751, Standard Specification for Preformed Expansion Joint Filler for Concrete Paving and Structural Construction (Nonextruding and Resilient Bituminous Types).
40. D1752, Standard Specification for Preformed Sponge Rubber and Cork Expansion Joint Fillers for Concrete Paving and Structural Construction.
41. D2628, Specification for Preformed Polychloroprene Elastomeric Joint Seals for Concrete.
42. D2828, Specification for Non-Bituminous Inserts for Contraction Joints in Portland Cement Concrete Airfield Pavement, Sawable Type.
43. D3406, Specification for Joint Sealant, Hot-Applied, Elastomeric, Jet Fuel Resistant Type for Portland Cement Concrete Pavements.
44. D3569, Specification for Joint Sealant, Hot-Applied, Elastomeric-Type, for Portland Cement Concrete Pavements.

45. D3581, Specification for Joint Sealant, Hot-Applied, Jet-Fuel-Resistant-Type, for Portland Cement and Tar-Concrete Pavements.
46. D5249, Specification for Backer Material for Use With Cold- and Hot-Applied Joint Sealants in Portland Cement Concrete and Asphalt Joints.
47. D5893, Specification for Cold-Applied, Single Component, Chemically Curing Silicone Joint Sealant for Portland Cement Concrete Pavements.
48. D6690, Standard Specification for Joint and Crack Sealants, Hot Applied, for Concrete and Asphalt Pavements.
49. E329, Specification for Agencies Engaged in Testing and Inspection of Materials Used in Construction.
50. E408, Standard Test Methods for Total Normal Emittance of Surfaces Using Inspection-Meter Techniques.
51. E903, Standard Test Method for Solar Absorptance, Reflectance, and Transmittance of Materials Using Integrating Spheres.
52. E1918, Standard Test Method for Measuring Solar Reflectance of Horizontal and Low-Sloped Surfaces in the Field.
53. E1980, Standard Practice for Calculating Solar Reflectance Index of Horizontal and Low-Sloped Opaque Surfaces.

D. National Ready Mixed Concrete Association (NRMCA).

1.03 SUBMITTALS

A. Comply with Section 01 33 00, Submittal Procedures.

B. Action submittals:

1. Product data: admixtures.
2. Design data:
 - a. Concrete mix design signed by concrete mix designer.
 - b. Minimum information:
 - 1) Name of ready-mix plant.
 - 2) Project.
 - 3) Engineer.
 - 4) Contractor.
 - 5) Mix design number.
 - 6) Specified concrete strength.
 - 7) Water-cement-fly ash ratio.
 - 8) Maximum aggregate size.
 - 9) Cement content.
 - 10) Fly ash content.
 - 11) Water content.
 - 12) Type, name, and amount of admixtures.
 - 13) Unit weight.
 - 14) Slump.

- 15) Ingredient proportions corrected for average moisture content for particular times of year.
3. Joint drawings: Identify location and spacing of each type of joint.
4. Gradation for coarse and fine aggregates, and combined gradation. List percent passing for each sieve size.
5. Detailed plan for cold weather placements, including curing and protection.
6. Detailed plans for hot weather placements, including curing and protection.

C. Informational submittals:

1. Manufacturer's Certificate of Compliance:
 - a. Portland cement.
 - b. Admixtures.
 - c. Fly ash.
 - d. Aggregates.
2. Statements of Qualifications:
 - a. Mix designer.
 - b. Batch plant.
 - c. Testing laboratory.
3. Test reports:
 - a. Admixtures: Chemical ingredients and percentage of chloride in each admixture and fly ash.
 - b. Fly ash: Source test analysis and amount used in accordance with ASTM C94, Section 16.
 - c. Mix design: for each trial, signed by qualified mix designer.
 - d. Laboratory mixes: cylinder test results.
4. Concrete delivery tickets:
 - a. For each batch of concrete before unloading at the Site.
 - b. Minimum delivery ticket information:
 - 1) Name of ready-mix plant.
 - 2) Serial number of ticket.
 - 3) Date and truck number.
 - 4) Name of Contractor.
 - 5) Job name and location.
 - 6) Mix design number.
 - 7) Quantity of concrete delivered.
 - 8) Type and quantity of admixtures.
 - 9) Quantity of water added at batch plant.
 - 10) Time of loading, arriving at the Site, and unloading.
 - 11) Volume of water added by receiver of concrete at their initials.
 - c. Record of drum revolution counter, type, and brand.

1.04 QUALITY ASSURANCE

A. Qualifications:

1. Mix Designer: Licensed professional engineer registered in New York State or a certified concrete mix designer approved by NYSDOT.
 2. Testing and Inspection Agency: Comply with ASTM E329.
 3. Batch plant: Currently certified by the National Ready Mixed Concrete Association.
- B. Pre-Paving conference:
1. Hold among the Contractor, Subcontractor involved in concrete paving and the Engineer.
 2. Hold conference at least 14 days prior to the start of concrete paving operations.
 3. Conference cannot be held until the Engineer has received concrete mix design and admixture submittals.
 4. Items to be discussed:
 - a. Mix design.
 - b. Method of placement.
 - c. Curing.
 - d. Finishing schedule.
 - e. Traffic control.
 - f. Protection of Work.
- C. Hot Weather Concreting: Conform to ACI 305R.
- D. Cold Weather Concreting: Conform to ACI 306R.

1.05 DELIVERY, STORAGE, AND HANDLING

- A. Comply with Section 01 61 00, Common Product Requirements.
- B. Transport ready-mix concrete in accordance with ASTM C94.

PART 2 - PRODUCTS

2.01 CONCRETE MATERIALS

- A. Concrete mix design:
 1. The requirements of the following sections of the NYSDOT Standard Specifications shall apply unless otherwise indicated on the Drawings:
 - a. Portland cement: 701-01.
 - b. Coarse aggregate: 703-02.
 - c. Concrete sand: 703-07.
 - d. Admixtures: 711-08.
 - e. Water: 712-01.
 2. Compressive strength: 4,000 psi at 28 days.
 3. Air entrainment: 5% to 7%.
 4. Maximum water-cement ratio: 0.44.
 5. Maximum slump: 4 inches.

2.02 ANCILLARY MATERIALS

- A. Tie bars: Grade 40 deformed steel bars, conforming to Section 03 21 00, Reinforcing Steel.
- B. Dowels: Conform to the requirements of AASHTO M227, Grade 70.
- C. Joint filler:
 - 1. Contraction joints shall be placed between expansion joints at equal intervals not exceeding six (6) feet.
 - 2. These joints shall be formed either by use of steel division plates, 1/8-inch thick, or by approved methods of cutting a groove in the surface of the finished concrete.
 - 3. Expansion joints shall be pre-molded strips of asphaltic felt of the required thickness, as wide as the thickness of the walk, and laid in one piece as long as the full length of the slab.
- D. Joint sealant:
 - 1. Shall be a one-component, non-priming, urethane, self-leveling (pour grade) sealant.
 - 2. Joint sealant material shall fully comply with Federal Specification TT-S-00230C, Type 1, Class A, and ASTM C920, Type S, Grade P, Class 25, Use T, M.
- E. Backer rod:
 - 1. Backer material conforming to ASTM D5249.
 - 2. Cylindrical sealant backing conforming to ASTM C1330.
- F. Curing compound: Per NYSDOT Standard Specifications, Section 701.
- G. Curing membranes:
 - 1. White, polyethylene sheet.
 - 2. Waterproof paper.
 - 3. Cotton or jute mats.
- H. Evaporation retardant: Confilm, as manufactured by Master Builders Company, or approved equal.

2.03 EQUIPMENT

- A. Ready-mixed concrete batch plants: Certified by NYSDOT.
- B. Batch plants:
 - 1. Conform to requirements of Section 701 of the NYSDOT Standard Specifications.
 - 2. Bins shall have adequate separate compartments for fine aggregate, each separate size of coarse aggregate and cement.

3. Bins and compartments shall be tight and ample to prevent spilling from one bin to another.
 4. Separate compartments, including weighing hoppers, shall discharge freely and efficiently.
 5. Scales for weighing aggregates and cement may be either beam type or springless dial type.
 6. Scales shall be accurate within 0.5 percent under operating conditions throughout the range of use and, tested and adjusted as often as the Engineer may deem necessary to assure their continued accuracy.
 7. Equipment for dispensing water and admixtures shall provide a separate feed, accurate quantity measurement, and shall inject water and admixture at a time in the mixing process to ensure thorough and complete mixing throughout the batch.
 8. Automatically controlled batchers shall have automatically interlocked mechanisms providing the following:
 - a. Positive weighing and discharge of cement and of each separate size aggregate.
 - b. Interlocking between weighing hoppers to prevent part of batch from being discharged until each separate hopper has been filled with correct proportion.
 - c. Simultaneous discharge of hoppers.
 - d. Lockable compartment containing time setting controls.
 9. Equip mixers with a timing device that will not permit batch to be discharged until specified mixing time has elapsed.
 10. The means of storing, measuring and introducing water into the mixer shall provide positive control and accurate measurement.
- C. Ready-mixed concrete trucks:
1. As specified in Section 701 of the NSDOT Standard Specifications.
 2. Agitator mixer type.
 3. Equipped with operable electrically-actuated drum revolution counter.
 4. Use of non-agitator equipment is will not be permitted.
 5. Each mixer shall carry a clearly visible manufacturer's plate showing capacity of mixer and other pertinent operating rates and limits.
 6. Provisions shall be made at the mixer for controlled addition of air-entraining admixtures or other special components of the mix.
 7. Mixing speed: 70 to 100 revolutions at a mixing speed recommended by the truck mixer manufacturer.
- D. Hauling equipment:
1. As specified in Section 701 of the NYSDOT Standard Specifications.
 2. Upon delivery of each batch of concrete to the Site, submit a trip ticket to the Engineer.
- E. Paving equipment:
1. Slipform paver:

- a. Place concrete paving with two separate machines, a spreader and a slipform paver. Machines, when operating in tandem shall spread, consolidate, screed, and float finish freshly placed concrete paving in one pass with a minimum of hand-finishing.
 - b. Each machine shall be fully self-propelled and equipped with electronic controls to control line and grade from both sides.
 - c. Spreader shall be able to deliver mix without segregation or displacing reinforcing steel.
 - d. Able to vibrate concrete paving for full width and depth and be equipped with vibrating tubes or arms to work in concrete paving.
 - e. Sliding forms shall be held together rigidly to prevent them from spreading.
 - f. Form shall be long enough so concrete slump will not exceed 1/4-inch.
 - g. Supports of paver and other equipment which ride on previously-placed pavement shall be equipped to prevent marring, edge breaking, or chipping of previously placed pavement.
- 2. Bridge deck finisher/paver: A bridge or similar finishing/paving machine utilizing previously constructed and cured curb and gutter as side forms and support for machine rails may be used with prior approval of the Engineer.
- F. Concrete saws:
- 1. Provide power-driven concrete saws for sawing joints or finishing concrete, adequate in number of units and power to complete sawing at required rate.
 - 2. Saws and related equipment shall be of proven adequacy and design to perform efficiently and shall be subject to immediate replacement, if specified results are not obtained.
 - 3. Standby saw shall be available at the Site.
- G. Smoothness testing equipment: Supply two 12-foot straight edges for determining smoothness.

PART 3 - EXECUTION

3.01 WEATHER LIMITATIONS

- A. Concrete shall not be placed:
- 1. Until the air temperature in the shade is 40 degrees F and rising and is forecast to remain above 40 degrees F.
 - 2. On frozen ground.
 - 3. During periods of rain or snow.

- B. Concrete placement shall not continue when air temperature drops below 40 degrees F.
- C. Protect concrete pavement from inclement weather for 7 days after it has been placed, when rain is imminent, and when air temperature drops or is forecast to drop below 40 degrees F.

3.02 PREPARATION

- A. Prepare base as specified in Section 304 of the NYSDOT Standard Specifications.
- B. Dampen base thoroughly prior to concrete placement; standing water will not be permitted.
- C. Complete formwork prior to concrete placement. Area in which concrete is to be placed shall be smooth and free of ruts, projections, debris, spilled concrete, mud, sloughed soil, standing water, organic and other objectionable materials.
- D. Construction joints: Inspect prior to concrete placement.
- E. Prior to placing paving equipment in position, full width and length of the area on which the tracks of the paving equipment is to operate shall be brought to density and surface tolerances required.
- F. Protect existing exposed surfaces such as grates, catch basins, air valves, manholes, and clean-out lids from splattered and spilled concrete during concrete placement by use of durable waterproof paper.
- G. Furnish operable backup vibrator on Site prior to concrete placement.

3.03 SLIP-FORM PAVING

- A. Deliver from hauling vehicle to paving machine hopper.
- B. Contractor's equipment hauling Portland cement concrete or reinforcement will not be permitted on prepared subgrade, but will be allowed on the base, with turns or other maneuvering kept to a minimum. Damage to subgrade or base shall be corrected to the satisfaction of the Engineer.
- C. Machine placement:
 - 1. Place in final position uniformly in one layer, so a minimum of finishing will be necessary to provide a dense, homogenous pavement conforming to true grade and cross-section.
 - 2. Spreader shall receive Portland cement concrete mixture in its hopper and uniformly spread and strike it off at proper thickness for full width of area being paved.

3. Paver shall vibrate, consolidate, and finish slab to proper grade and cross-section.
- D. Paver:
1. Paver shall be operated with as continuous forward movement as possible.
 2. Coordinate mixing, delivering, and spreading Portland cement concrete to provide uniform progress.
 3. Stopping and starting paver shall be held to a minimum.
 4. If for any reason it is necessary to stop forward motion of the paver, vibratory and tamping elements shall also be stopped immediately.
 5. No external force shall be applied to the paver, except with approval of the Engineer.
- E. While placing Portland cement concrete, make provisions for construction joints, placing dowels, tie bars, and other devices, as called on the Drawings, and as specified herein.
- F. Portland cement concrete shall be rejected if it:
1. Is not in place within 1 hour after being mixed.
 2. Has begun to take an initial set prior to placement.
 3. Has been re-tempered with water.
- G. If necessary, supplemental hand spreading and distributing shall be with shovels. Rakes will not be permitted.
- H. Portland cement concrete shall not be fouled with foreign matter.
- I. Use vibrators to consolidate Portland cement concrete pavement at least 6 feet each side of construction joints and expansion joints.
- J. Defects:
1. Fill areas of minor honeycomb or other minor defect in composition of Portland cement concrete along exposed edges of Portland cement concrete with a stiff mortar of cement and fine aggregate.
 2. Apply to moistened Portland cement concrete to satisfaction to Engineer.
 3. Areas showing serious defects of concrete composition shall be removed and replaced with pavement of specified quality for full width of strip between longitudinal joints or edges and for a length of not less than between the nearest transverse joint.

3.04 JOINTS

- A. General:
1. Referred to as contraction or construction, either of which may be transverse or longitudinal, as called on the Drawings or as approved by the Engineer.

2. Joints, backer material, joint filler, and joint sealants shall extend to pavement edges or to each other, and shall be constructed perpendicular to the pavement surface.
3. Joints shall not vary from specified or indicated line by more than 1/4 inch.
4. Joint drawings: Contractor's joint layout submittal shall consider joint placement in curb and gutter, at catch basins, and position of manholes and other large structures, as well as other limitations as specified herein.
5. Place manholes and other similar large structures in line of joint, or if impractical, isolate structure from pavement with pre-molded joint filler, 1/2-inch wide, conforming to AASHTO M213 and ASTM D1751.

B. Contraction joints:

1. Sawed type with poured filler:
 - a. Sawing shall be to a depth as shown on the Drawings with a maximum width of 1/4 inch and a minimum width of 1/8 inch, in straight lines as shown or as approved by the Engineer.
 - b. Perform saw cuts as soon as concrete pavement has set enough to permit sawing without tearing or raveling, before uncontrolled cracking results, and within 24 hours of placing Portland cement concrete.
 - c. Saw by be single or tandem, as the Contractor may elect, and shall be controlled by a guide to a true line.
 - d. Clean joints thoroughly of foreign matter before pouring approved rubber asphalt filler.
 - e. Tops of joint filler shall be true to pavement cross-section within 1/8 inch and shall be protected from damage by concrete paving operations.
 - f. Areas containing uncontrolled cracks shall be removed and replaced.
 - g. Restore curing agents broken or damaged by sawing operations.
2. Space longitudinal joints as shown on the Drawings at the interface between lanes, normally at intervals between 12 and 16 feet.
3. Transverse joints shall be as shown on the Drawings or as approved by the Engineer, with intervals of 12 to 16 feet.

C. Construction joints:

1. Construct when there is an interruption of longer than 45 minutes in Portland cement concrete placing operations or where specified.
2. Place parallel with intended contraction joint.
3. Tool both free edges of joints with 1/8 inch radius rounder to remove laitance and mortar resulting from finishing operations and to provide clean, rounded edge.
4. Tooling shall not form ridges on surface of concrete.

5. New concrete pavement placed contiguous to joint shall conform to proportions and consistency of previously placed concrete.
6. Transverse construction joint:
 - a. Doweled type by using #8 x 3'-0" long dowels at 12-inch centers coated with plastic, grease, heavy oil or other approved material that will neither bond with nor be harmful to operation at a depth of 1/2 the pavement thickness parallel to the centerline.
 - b. If sufficient Portland cement concrete has not been mixed at the time of interruption to place a construction joint at least 3 feet from a planned contraction joint, remove excess Portland cement concrete back to a position to satisfactorily meet these criteria and to satisfaction of the Engineer.
 - c. Fill joint which has opened to a width of 1/8 inch or greater during construction or maintenance periods with poured filler.
 - d. Do not construct within 3 feet of a transverse contraction joint.
7. Longitudinal construction joint:
 - a. Tied type using #5 x 3'-0" deformed tie bars at 12-inch centers.
 - b. Tie bars:
 - 1) Not required at construction joints between concrete pavement and gutter, except where shown on the Drawings and specified herein.
 - 2) Placement:
 - a) Plastic concrete: Insert before vibrating and finishing concrete pavement.
 - b) Hardened concrete:
 - i) Drill hole, insert, and grout tie bars into place.
 - ii) Drill holes large and deep enough to allow tie bars to be inserted with grout.
 - iii) Perform any time after concrete pavement has attained enough strength to resist damage caused by drilling.
 - iv) Tie bars shall be grouted a maximum of 3 hours prior to placement of adjacent concrete pavement.
 - 3) Replace loose tie bars by drilling and grouting as specified herein.

D. Scored joints:

1. Configuration: 1/4-inch wide by 1/4-inch deep at locations indicated on the Drawings, formed by tooling concrete while it is still fresh.
2. Do not fill or seal.
3. Layout of joints shall be straight and true and shall not vary from indicated line by more than 1/4 inch.

3.05 SURFACE FINISHING

- A. Use temporary screeds. Wet screeding and jitterbugging shall not be permitted.
- B. Pavements shall have a surface tolerance of 1/4 inch in 10 feet, in accordance with ACI 325.9R.
- C. Salting, spreading of cement, or cement-sand mixtures to speed up hardening shall not be permitted.
- D. Exposed pavement edges shall be edged to a 1/2-inch radius and construction joints shall be edged to 1/8 inch radius after finishing. Edging shall not form ridges on pavement surface.
- E. Pavement shall be treated and protected by use of evaporation retardant applied in accordance with manufacturer's written instructions.
- F. Flat surfaces shall be treated immediately after screeding and floating or if time period greater than 15 minutes occurs between finishing operations.
- G. Pavements shall be screeded, floated, and given a broomed, skid-resistant finish.

3.06 CURING OF CONCRETE PAVEMENT

- A. Immediately after final floating, surface finishing, and edging has been completed, and while Portland cement concrete surface is still moist, cover and cure entire exposed surface for at least 72 hours in accordance with one of the following provisions:
 - 1. Liquid Membrane-Forming Compounds:
 - a. Apply compound uniformly to Portland cement concrete by pressure-spray methods at a rate which will form an impervious membrane, by at least at a rate of 1 gallon per 150 square feet.
 - 2. Other membranes:
 - a. Apply to damp Portland cement concrete as soon as it can be placed without marring surface.
 - b. Place in tact with surface, extend beyond sides or edges of slabs or forms, and fasten down to hold it in position as a waterproof and moisture-proof covering.
 - c. Laps shall be sufficient to maintain tightness equivalent to sheeting.
 - d. Transverse laps for waterproof shall be at least 18 inches, and longitudinal seams shall be cemented.
 - e. Cotton or jute mats shall be saturated with water prior to placing and kept fully wetted during the curing period.

- B. Timing and application:
 - 1. Concrete shall be cured by use of curing compound, for a minimum of 7 days after concrete placement, in accordance with ACI 308.
 - 2. Curing compounds shall be applied in accordance with the manufacturer's written instructions.
 - 3. Exposed surfaces shall be sprayed with curing compound immediately after free surface water has disappeared from finished surface.
- C. Concrete temperature shall be maintained in accordance with ACI 306R.
- D. Curing compounds shall not come into contact with hardened concrete that is to be concreted against.

3.07 FIELD QUALITY CONTROL

- A. Retain independent testing or inspection agency to perform inspection, sampling, and testing.
- B. Concrete sampling:
 - 1. In accordance with ASTM C172.
 - 2. Take sample not less than every 5,000 square feet or fraction thereof of concrete placed each day.
- C. Perform the following tests on each sampling:
 - 1. Slump: ASTM C143.
 - 2. Air content: ASTM C231.
 - 3. Compressive strength: ASTM C39.
 - 4. Flexural strength: ASTM C78.
- D. Strength tests:
 - 1. Make and cure cylinders and beams in accordance with ASTM C31.
 - 2. Cylinders:
 - a. Make four, standard 6-inch diameter by 12-inches high.
 - b. Cure on in field and three in laboratory.
 - 3. Beams:
 - a. Make three standard 6 inches by 6 inches by 21 inches.
 - b. Cure in the field.
 - 4. Compressive:
 - a. Test one field-cured cylinder at 7 days and two laboratory-cured cylinders at 28 days.
 - b. Test last cylinder at 56 days, if 28-day cylinder is below specified strength.
 - 5. Flexural: Test one beam at 7 days and two beams at 28 days.
- E. Acceptance of concrete shall be in accordance with ACI 318/318R.
- F. Concrete with compressive strength less than specified, as evidenced by cylinder tested at 56 days, shall be additionally tested as follows:

1. Less than 500 psi low in compression or less than 75 psi low in flexure:
 - a. Penetration Resistance Test: Per ASTM C803.
 - b. Rebound Hammer Test: Per ASTM C805.
 - c. Perform tests within 24 hours of non-conforming strength tests.
2. More than 500 psi low in compression or more than 75 psi low in flexure:
 - a. Concrete coring: Take three standard cores from the concrete representing original specimens.
 - b. Take and prepare cores in accordance with ASTM C42.
 - c. Test cores in accordance with ASTM C39.
 - d. Take cores within 24 hours of non-conforming strength test.

3.08 CLEANING

- A. Clean concrete splatter from exposed surfaces.
- B. Thoroughly broom and wash concrete surfaces before opening to traffic.

3.09 PROTECTION OF CONCRETE

- A. Do not operate construction equipment or allow traffic on newly placed concrete pavement until the following requirements are met:
 1. Joints have been filled as specified herein.
 2. Concrete has attained a compressive strength of at least 4,000 psi.
- B. Protect new concrete from construction operations, mechanical disturbances, water flow, and soiling until open for traffic.
- C. Erect and maintain suitable barriers to protect concrete from traffic or other detrimental trespass until pavement is opened to traffic.
- D. Maintain watchmen after normal working hours for at least a 24-hour period to ensure barriers are not removed or destroyed, and that trespass and vandalism upon pavements do not occur.
- E. Wherever it is necessary that traffic, including Contractor's vehicles and equipment, be carried from one side of pavement to the other, construct suitable bridges over pavement, and maintain them in good condition as long as they may be required.
- F. Leaving gaps in pavement to facilitate movement of traffic will not be allowed, unless prior written permission is received from the Engineer.
- G. Protect new concrete from dirt, asphalt, and other deleterious substances that may be tracked onto new pavement from construction activities.

- H. Pavement damaged by traffic or damaged from any other cause, prior to acceptance, shall be repaired or replaced to conform to the requirements herein.

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SECTION 32 17 23

PAVEMENT MARKINGS

PART 1 - GENERAL

1.01 SUMMARY

- A. Section includes:
 - 1. Traffic lines and markings.
 - 2. Legends.
 - 3. Paint.
 - 4. Glass beads.
- B. Definitions:
 - 1. Standard Specifications: State of New York, Department of Transportation (NYSDOT) Standard Specifications.

1.02 REFERENCE STANDARDS

- A. The following is a list of standards which may be referenced in this Section:
 - 1. American Association of State Highway and Transportation Officials (AASHTO):
 - a. M237, Standard Specification for Epoxy Resin Adhesives for Bonding Traffic Markers to Hardened Portland Cement and Asphalt Concrete.
 - b. M247, Standard Specification for Glass Beads Used in Traffic Paint.
 - c. M248, Standard Specification for Ready-Mixed White and Yellow Traffic Paints.
 - d. M249, Standard Specification for White and Yellow Reflective Thermoplastic Striping Material (Solid Form).
 - 2. ASTM International (ASTM):
 - a. D4280, Standard Specification for Extended Life, Nonplowable, Prismatic, Raised Retroreflective Pavement Markers.
 - 3. Federal Specifications (FS):
 - a. A-A-2886A, Paint, Traffic, Solvent-Based.
 - b. TT-B-1325C, Beads (Glass Spheres); Retroreflective.

1.03 SUBMITTALS

- A. Comply with Section 01 33 00, Submittal Procedures.
- B. Action submittals:
 - 1. Product Data for each product or material incorporated into the Work:
 - a. Paint.

- b. Thermoplastic material.
 - c. Reflective markers
 - d. Epoxies, resins, and primers.
 - e. Glass beads: proposed gradation.
- 2. Manufacturer Instructions:
 - a. Application temperatures, eradication requirements, application rate, line thickness, type of glass beads, and bead embedment and application rate.
 - b. Installation requirements, including storage and handling procedures.
- 3. Qualifications Statements:
 - a. Qualifications for manufacturer and applicator.
 - b. Manufacturer's approval of applicator.

1.04 QUALITY ASSURANCE

- A. The pavement marking Manufacturer shall have been in the active manufacture of specified products for at least three years.
- B. Applicator:
 - 1. The Applicator shall be an individual or firm specializing in the proper installation of the pavement marking specified herein.
 - 2. The Applicator shall have a minimum of three years of experience in applying the pavement markings specified and shall be certified and approved by the Manufacturer.

1.05 DELIVERY, STORAGE, AND HANDLING

- A. Comply with Section 01 60 00, Common Product Requirements.
- B. Storage:
 - 1. Store in accordance with the Manufacturer's instructions.
 - 2. Paint:
 - a. Invert containers several days prior to use if paint has been stored more than two months.
 - b. Minimize exposure to air when transferring paint.
 - c. Seal drums and tanks when not in use.
 - 3. Protection:
 - a. Protect materials from moisture and dust by storing in clean, dry location remote from construction operations areas.
 - b. Provide additional protection according to manufacturer instructions.

PART 2 - PRODUCTS

2.01 GENERAL

- A. All products shall be in accordance with Section 640 and Section 727 of the NYSDOT Standard Specifications.

2.02 PAINT

- A. Color: white, yellow, or blue.
- B. Traffic paint shall comply with Section 640-2 and Section 727-03 of the NYSDOT Standard Specifications.
- C. Paint shall be homogeneous, easily stirred to smooth consistency, with no hard settlement or other objectionable characteristics during a storage period of 6 months.

2.03 THERMOPLASTIC MARKING

- A. Color: white, yellow, or blue.
- B. Thermoplastic markings shall be in accordance with Section 737-01 of the NYSDOT Standard Specifications.

2.04 GLASS BEADS

- A. Glass beads shall comply with Section 727-05 of the NYSDOT Standard Specifications.

PART 3 - EXECUTION

3.01 GENERAL

- A. Surface Preparation, Application, and Protection: Comply with Section 635, Section 640, and Section 687 of the NYSDOT Standard Specifications.

3.02 APPLICATION

- A. Do not apply materials if surface and ambient temperatures are outside temperature ranges required by pavement marking Manufacturer.
- B. Do not apply exterior coatings during rain or snow if relative humidity is outside range required by Manufacturer, or if moisture content of surfaces exceeds that required by Manufacturer.
- C. Minimum Conditions: Do not apply paint if temperatures are expected to fall below 55 degrees F within 24 hours after application.

- D. Thermoplastic Compound: Do not apply unless pavement surface temperature is minimum 55 degrees F and rising.
- E. Maximum VOCs: Do not exceed limit required by State or Environmental Protection Agency.

3.03 FIELD QUALITY CONTROL

- A. Inspect for incorrect location, insufficient thickness, line width, coverage, retention, uncured or discolored material, and insufficient bonding.
- B. Acceptance:
 - 1. Repair lines and markings which, after application and curing, do not meet following criteria:
 - a. Incorrect location.
 - b. Insufficient thickness, width, coverage, or retention.
 - c. Uncured or discolored material.
 - d. Insufficient bonding.

3.04 CLEANING

- A. Collect and lawfully dispose of residues from painting operations.

3.05 PROTECTION

- A. Protect painted pavement markings from vehicular and pedestrian traffic until paint is dry and track free.
- B. Follow Manufacturer instructions or use minimum of 30 minutes of dry time.

+ + END OF SECTION + +

SECTION 32 17 26

TACTILE WARNING SURFACING

PART 1 - GENERAL

1.01 SUMMARY

- A. Section includes: Cast iron embedded tactile warning surface units and accessories.

1.02 SUBMITTALS

- A. Comply with Section 01 33 00, Submittal Procedures.
- B. Product Data: Submit manufacturer's information including characteristics, dimensions, domes, and special shapes.
- C. Manufacturer's Certificate: Certify that products meet or exceed specified requirements.
- D. Manufacturer's Instructions: Submit detailed instructions on installation requirements, including storage and handling procedures.

1.03 QUALITY ASSURANCE

- A. Perform Work according to New York State Department of Transportation and ADA standards.
- B. Manufacturer: Company specializing in manufacturing products specified in this Section with minimum three years of experience.
- C. Installer: Company specializing in performing Work of this Section with minimum three years' documented experience.

1.04 DELIVERY, STORAGE, AND HANDLING

- A. Store and protect materials according to manufacturer's instructions.

1.05 WARRANTY

- A. Furnish five-year manufacturer's warranty for tactile warning surfacing.

PART 2 - PRODUCTS

2.01 TACTILE WARNING SURFACING

- A. Manufacturer:
 - 1. EJ USA, Inc., East Jordan, MI.
 - 2. Or approved equal.
- B. Description:
 - 1. ADA-compliant tactile warning surfaces for visually impaired pedestrians.
 - 2. Suitable for installation on both asphalt and concrete.
- C. Materials:
 - 1. Cast Iron.
 - 2. Uncoated natural finish.
- D. Design and performance criteria:
 - 1. Loading: Single-wheel HS20-44, according to AASHTO HB-17.
 - 2. Resistant to impacts, wear, freeze-thaw, UV exposure, and stains.
- E. Domes:
 - 1. Spacing and size shall conform to the dimensions shown on the current NYSDOT standard sheets.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Verify that substrate is level or to correct grade, is smooth, is capable of supporting tactile warning surface units and imposed loads, and is otherwise ready to receive Work of this Section.

3.02 PREPARATION

- A. Follow all applicable manufacturer's requirements for environmental conditions, surface preparation, installation procedures, curing procedures, and materials compatibility.

3.03 INSTALLATION

- A. Install tactile warning units in wet concrete in conformance with manufacturer's instructions.

3.04 FIELD QUALITY CONTROL

- A. Inspect for correct location, extent of coverage, and final grade.

3.05 CLEANING

- A. Clean tactile warning surfacing according to manufacturer's instructions.

3.06 PROTECTION

- A. Protect tactile warning surfacing from vehicular and pedestrian traffic on newly installed tactile warning surface modules for period of time as instructed by manufacturer.

3.07 MAINTENANCE

- A. Furnish service and maintenance of tactile warning surfacing for three years from date of Substantial Completion.

+ + END OF SECTION + +

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SECTION 32 92 00

TURF AND GRASSES

PART 1 - GENERAL

1.01 SUMMARY

- A. This Section specifies material and performance requirements for turf and grasses, as shown on the Drawings and as otherwise called herein.
- B. This Section includes the following:
 - 1. Site preparation.
 - 2. Imported topsoil.
 - 3. Seeding materials.
 - 4. Soil amendments.
 - 5. Erosion control blankets.

1.02 SUBMITTALS

- A. Comply with Section 01 33 00, Submittals.
- B. Seed:
 - 1. Grass seed:
 - a. Certification of grass seed from seed vendor for the grass-seed mixture stating the botanical and common name and percentage by weight of each species and variety, and percentage of purity, germination, and weed seed.
 - b. Include the year of production and date of packaging.
 - 2. Naturalizing seed mix:
 - a. Certification from seed vendor stating the botanical and common name and percentage by weight of each species and variety, and percentage of purity.
 - b. Include the year of production and date of packaging.
- C. Hydro mulch material certification. Use phosphorus free fertilizer.
- D. Topsoil: Topsoil test results.
- E. Soil amendments:
 - 1. Product certification signed by manufacturers certifying that their products comply with specified requirements.
 - 2. Manufacturer's certified analysis for standard products.
- F. Planting schedule indicating anticipated dates and locations for each type of seeding.

- G. Product data in the form of manufacturer's technical data, specifications, and installation instructions for erosion control blankets and accessories.

1.03 QUALITY ASSURANCE

- A. Installer Qualifications: Engage an experienced Installer who has completed landscaping work similar in material, design, and extent to that indicated for this Project and with a record of successful grass establishment.
- B. Topsoil Analysis: Furnish the topsoil analysis in accordance with Specification Section 32 93 00, Plants.
- C. Soil Amendment: Prepare a soil amendment procedure that will adjust all of the topsoil to be used in construction lawns to a pH of 6.5 if the pH testing indicates a pH other than 6.5.
- D. Grass Seed Analysis:
 - 1. Employ at no cost to the Owner a qualified independent testing agency to provide analysis of a sample grass seed taken after delivery to the site.
 - 2. The seed mixture shall be tested for seed species and proportions, purity, and germination percentages as indicated on the Schedules at the end of this Section.
- E. Naturalizing Seed Mix, Steep Slope Seed Mix, and Wet Meadow Seed Mix Analysis:
 - 1. Fresh, clean, dry, new-crop seed complying with the Association of Official Seed Analysts' "Rules for Testing Seeds" for purity and germination tolerances.
 - 2. The seed mixture shall be tested for seed species and varieties, proportions by weight as indicated Seed Mixtures Schedule at the end of this Section.
- F. Conform to American Society of Testing and Materials (ASTM), Standard Specifications and Methods of Testing.
- G. Erosion Control Blankets: Product data.

1.04 DELIVERY, STORAGE, AND HANDLING

- A. Comply with Section 01 61 00, Common Product Requirements.
- B. Packaged Materials:
 - 1. Deliver packaged materials in containers showing weight, analysis, and name of manufacturer.
 - 2. Protect materials from deterioration during delivery and while stored at site.

- C. Seed: Deliver seed in original sealed, labeled, and undamaged containers.
- D. Topsoil: Do not deliver to the site, stockpile or spread muddy or frozen topsoil.

1.05 COORDINATION AND SCHEDULING

- A. Seeding Time: Sow grass seed between March 15th and May 15th or between August 15th and September 30th, except as otherwise accepted by the Engineer.
- B. Weather limitations:
 - 1. Proceed with planting only when existing and forecast weather conditions are suitable for work.
 - 2. When drought, excessive moisture or other unsatisfactory conditions prevail, the work shall be stopped. When special conditions warrant a variance to the turf operations, proposed times shall be submitted to the Engineer for approval prior to implementation.
 - 3. Do not place topsoil on subgrade that is frozen, excessively wet, extremely dry or otherwise detrimental to seeding, planting or proper grading.

PART 2 - PRODUCTS

2.01 SEED

- A. Seed: Fresh, clean, dry, new-crop seed complying with the Association of Official Seed Analysts' "Rules for Testing Seeds" for purity and germination tolerances.
 - 1. Seed Mixes:
 - a. Provide seed of species and varieties, proportions by weight, and minimum percentages of purity, and germination as indicated on Schedules at the end of this Section.
 - b. The maximum percentage of weed seed shall not exceed 0.1% by weight.

2.02 TOPSOIL

- A. Topsoil: ASTM D5268, pH range of 5.5 to 7.5, organic content between 5% and 10%, free of stones 1 inch or larger in any dimension, roots, plants, sods, clay lumps and other extraneous materials harmful to plant growth.

2.03 SOIL AMENDMENTS

- A. Lime:
 - 1. ASTM C602, Class T, agricultural limestone containing a minimum 80 percent calcium carbonate equivalent, with a minimum 99 percent

passing a No. 8 sieve and a minimum 75 percent passing a No. 60 sieve.

2. Provide lime in the form of dolomitic limestone.

B. Water: Potable.

2.04 FERTILIZER

A. Commercial Fertilizer: Commercial-grade fertilizer of neutral character, consisting of fast- and slow-release nitrogen, 50 percent derived from natural organic sources of urea-form and potassium in the following composition:

1. Composition: 3 percent nitrogen, 1 percent phosphorous, and 2 percent potassium, by weight (3N-1P-2K) in amounts to achieve rate of 2-4 lb of nitrogen per 1000 sq. ft./year.
2. Composition based on soil reports: Nitrogen, phosphorous, and potassium in amounts recommended in soil reports from a qualified soil-testing agency to achieve rate of 2-4 lb of nitrogen per 1000 sq. ft./year.
3. Use of fertilizers with more than 0% content of phosphorus is not allowed.

2.05 MULCHES

A. Organic Mulch: Organic mulch, free from deleterious materials, consisting of one of the following:

1. Straw Mulch: Provide air-dry, clean, mildew- and seed-free, salt hay or threshed straw of wheat, rye, oats, or barley.
2. Fiber Mulch: Biodegradable dyed-wood cellulose-fiber mulch, nontoxic, free of plant growth- or germination-inhibitors, with maximum moisture content of 15% and a pH range of 4.5 to 6.5.

B. Asphalt Emulsion Tackifier: Asphalt emulsion, ASTM D977, Grade SS-1, nontoxic and free of plant growth- or germination-inhibitors.

C. Nonasphaltic Tackifier: Colloidal tackifier recommended by fiber-mulch manufacturer for slurry application, nontoxic and free of plant growth- or germination-inhibitors.

2.06 EROSION CONTROL BLANKETS

A. Blankets: Biodegradable twisted jute or coir-spun mesh, 0.92 lb per sq. yd minimum, with 50 to 65 percent of open area. Include manufacturer's recommended wire staples.

B. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

1. North American Green.
2. East Coast Erosion Blankets.

3. Propex Geosynthetics, BP Amoco Group.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Examine areas to receive grass seed for compliance with requirements and for conditions affecting performance of work of this Section. Do not proceed with installation until unsatisfactory conditions have been corrected.

3.02 PREPARATION

- A. Protect structures, utilities, sidewalks, pavements, and other facilities, trees, shrubs, and plantings from damage caused by planting operations.
- B. Protect adjacent and adjoining areas from hydroseed overspraying.
- C. Provide 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.

3.03 LAWN PLANTING PREPARATION

- A. Limit subsoil preparation to areas that will be planted in the immediate future.
- B. Loosen subsoil to a minimum depth of 2 inches. Remove stones larger than 1-1/2 inches in any dimension and sticks, roots, rubbish, and other extraneous matter.
- C. In areas of crushed stone backfill, excavate crushed stone to allow for spreading of topsoil. Provide topsoil layer of 12 inches minimum
- D. Spread topsoil to minimum depth of 6 inches and as required to meet thickness, grades, and elevations shown, after light rolling and natural settlement. Do not spread if topsoil or subgrade is frozen.
- E. Place approximately 1/2 the thickness of topsoil required. Work into top of loosened subgrade to create a transition layer and then place remainder of topsoil.
- F. Preparation of Unchanged Grades: Where lawns are to be planted in areas unaltered or undisturbed by excavating, grading, or surface soil stripping operations, prepare soil as follows:
 - 1. Remove and dispose of existing grass, vegetation, and turf. Do not turn over into soil being prepared for lawns.
 - 2. Till surface soil to a depth of at least 6 inches. Apply required soil amendments and initial fertilizers and mix thoroughly into top 4 inches

- of soil. Trim high areas and fill in depressions. Till soil to a homogenous mixture of fine texture.
- 3. Clean surface soil of roots, plants, sod, stones, clay lumps, and other extraneous materials harmful to plant growth.
- 4. Remove waste material, including grass, vegetation, and turf, and legally dispose of it off the Owner's property.
- G. Grade lawn areas to a smooth, even surface with loose, uniformly fine texture. 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. Remove trash, debris, stones larger than 1-1/2 inches in any dimension, and other objects that may interfere with planting or maintenance operations.
- H. Moisten prepared lawn areas before planting when soil is dry. Water thoroughly and allow surface to dry before planting. Do not create muddy soil.
- I. Restore prepared areas if eroded or otherwise disturbed after fine grading and before planting.

3.04 EROSION CONTROL BLANKETS

- A. Install erosion control blankets on slopes with gradient 3:1 or steeper.
- B. For permanent installation prepare soil before installing blankets, including any necessary application of lime, fertilizer, and seed.
- C. Spread erosion control blankets over prepared soil starting from the top of slope. Anchor each blanket in 6 inches deep and 6 inches wide trench, with 12 inches of blanket extended beyond trench up-slope to be folded over the filled trench. Anchor blanket in trench with a row of stakes spaced 12 inches apart. Backfill trench and compact fill material. Apply seed to compacted soil. Fold blanket over compacted soil and secure it with a row of stakes spaced 12 inches apart.
- D. Roll blankets down or horizontally across the slope. Fasten blankets to soil surface by placing stakes at locations indicated or recommended by manufacturer. Overlap parallel blankets 2 inches to 5 inches as recommended by manufacturer. Overlap consecutive blankets spliced down the slope 3 inches "shingle style", end over end. Stake through overlapped areas 12 inches apart across entire blanket width.

3.05 SEEDING NEW LAWNS

- A. Sow seed with a spreader or a seeding machine. Do not broadcast or drop seed when wind velocity exceeds 5 mph. Evenly distribute seed by sowing equal quantities in 2 directions at right angles to each other.

- B. Do not use wet seed or seed that is moldy or otherwise damaged in transit or storage.
- C. Sow seed at the following rates:
 - 1. Lawn Seed Mix Seeding Rate: 5 lb per 1000 sq. ft.
 - 2. Naturalizing Seed Mix Seeding Rate: 1/2 lb per 1,000 sq. ft. or 20 lb per acre.
 - 3. Steep Slope Seed Mix Seeding Rate: 1 lb per 1,000 sq. ft. or 60 lb per acre.
 - 4. Wet Meadow Seed Mix Seeding Rate: 1/2 lb per 1,000 sq. ft. or 20 lb per acre.
- D. Rake seed lightly into top 1/8 inch of topsoil, roll lightly, and water with fine spray.
- E. Protect seeded slopes exceeding 5:1 against erosion with erosion-control blankets, as specified in this section.
- F. Protect seeded areas with slopes less than 1:6 against erosion by spreading straw mulch after completion of seeding operations. Spread uniformly at a minimum rate of 2 tons per acre to form a continuous blanket 1-1/2 inches loose depth over seeded areas. Spread by hand, blower, or other suitable equipment.
- G. Anchor straw mulch by spraying with asphalt-emulsion tackifier at the rate of 10 to 13 gal. per 1,000 sq. ft. Take precautions to prevent damage or staining of structures or other plantings adjacent to mulched areas. Immediately clean damaged or stained areas.

3.06 HYDROSEEDING NEW LAWNS (CONTRACTOR'S OPTION)

- A. Hydroseeding:
 - 1. Mix specified seed, fertilizer, and fiber mulch in water, using equipment specifically designed for hydroseed application.
 - 2. Continue mixing until uniformly blended into homogenous slurry suitable for hydraulic application.
 - 3. Mix slurry with nonasphaltic tackifier.
 - 4. Apply slurry uniformly to all areas to be seeded in a 1-step process.
 - 5. Apply mulch at the minimum rate of 1,500 lb per acre dry weight but not less than the rate required to obtain specified seed-sowing rate.

3.07 RECONDITIONING LAWNS

- A. Recondition existing lawn areas damaged by Contractor's operations, including storage of materials or equipment and movement of vehicles. Also recondition lawn areas where settlement or washouts occur or where minor regrading is required.

- B. Remove sod and vegetation from diseased or unsatisfactory lawn areas; do not bury into soil. Remove topsoil containing foreign materials resulting from Contractor's operations, including oil drippings, fuel spills, stone, gravel, and other construction materials, and replace with new topsoil.
- C. Where substantial lawn remains, mow, de-thatch, core aerate, and rake. Remove weeds before seeding. Do not use herbicides.
- D. Remove waste and foreign materials, including weeds, soil cores, grass, vegetation, and turf, and legally dispose of it off the Owner's property.
- E. Till stripped, bare, and compacted areas thoroughly to a depth of 6 inches.
- F. Apply required soil amendments and initial fertilizers and mix thoroughly into top 4 inches of soil. Provide new planting soil as required to fill low spots and meet new finish grades.
- G. Apply seed and protect with straw mulch as required for new lawns.
- H. Water newly planted areas and keep moist until new grass is established.

3.08 SATISFACTORY LAWN

- A. Seeded lawns will be satisfactory provided requirements, including maintenance, have been met and a healthy, uniform, close stand of grass is established, free of weeds, bare spots exceeding 5 by 5 inches, and surface irregularities.
- B. Replant lawns that do not meet requirements and continue maintenance until lawns are satisfactory.
- C. Weed control in seed mix areas: spot spray with approved herbicides or hand pull. When there is a heavy infestation, trim plantings to a height of 8 inches. Do not trim later than mid-September.

3.09 MAINTENANCE

- A. Begin maintenance of lawns immediately after each area is planted and continue until acceptable lawn is established, but for not less than the following periods:
 - 1. Seeded Lawns: 60 days after date of Substantial Completion.
 - 2. When full maintenance period has not elapsed before end of planting season, or if lawn is not fully established at that time, continue maintenance during next planting season.
- B. Maintain and establish lawns by watering, fertilizing, weeding, mowing, trimming, replanting, and other operations. Roll, regrade, and replant bare or eroded areas and re-mulch to produce a uniformly smooth lawn.

1. Replant bare areas with same materials specified for lawns.
 2. Add new mulch in areas where mulch has been disturbed by wind or maintenance operations sufficiently to nullify its purpose. Anchor as required to prevent displacement.
- C. Watering: Provide and maintain temporary piping, hoses, and lawn-watering equipment to convey water from sources and to keep lawns uniformly moist to a depth of 4 inches.
1. Lay out temporary lawn-watering system and arrange watering schedule to prevent wilting, puddling, erosion, and displacement of seed or mulch. Lay out temporary watering system to avoid walking over muddy or newly seeded areas.
 2. Water lawn at the minimum rate of 1 inch per week.
- D. Mowing:
1. Mow lawns as soon as there is enough top growth to cut with mower set at specified height for principal species planted.
 2. Repeat mowing as required to maintain specified height without cutting more than 40 percent of the grass height.
 3. Remove no more than 40 percent of grass-leaf growth in initial or subsequent mowings.
 4. Do not delay mowing until grass blades bend over and become matted. Do not mow when grass is wet.
 5. Schedule initial and subsequent mowings to maintain following grass height:
 - a. Mow grass from 2-1/2 to 3 inches high.
 - b. Mow seed mixes after plantings reach height of 18 inches.
 - c. Use a mower or string trimmer to trim plants to a height of 8 inches.
 - d. Do not mow later than mid-September.
 6. After seed mix areas are established, mow once per year in early spring.
- E. Postfertilization: Apply fertilizer to lawn after first mowing and when grass is dry.
1. Use fertilizer that will provide actual nitrogen of at least 1 lb per 1000 sq. ft. of lawn area.

3.10 CLEANUP AND PROTECTION

- A. Promptly remove soil and debris created by lawn work from paved areas. Clean wheels of vehicles before leaving site to avoid tracking soil onto surface of roads, walks, or other paved areas.
- B. Erect barricades and warning signs as required to protect newly planted areas from traffic. Maintain barricades throughout maintenance period until lawn is established.

3.11 TOPSOIL AMENDMENTS SCHEDULE

- A. Lawns: Provide topsoil amendments in not less than the following quantities:
1. Weight of lime per 1000 sq. ft.: 50 lb.
 2. Weight of commercial fertilizer per 1000 sq. ft.: 20 lb

3.12 SEED MIXTURES SCHEDULE

- A. Grass Seed Mix A: Provide low maintenance “No Mow” certified grass-seed blend or mix of four types of low growing fescues, proportioned by weight, as follows:

Proportion	Name	Min. Pct. Germ.	Min. Pct. Germ.
40 %	Creeping Red Fescue (Festuca rubra)	80	95
30 %	Hard Fescue (Festuca ovina)	85	98
25%	Red Fescue chewings type (Festuca rubra var commutata)	85	98
5 %	Perennial Ryegrass (Lolium perenne)	90	98

- B. Grass Seed Mix B: Provide certified grass-seed blend or mix, proportioned by weight, as follows:

Proportion	Name	Min. Pct. Germ.	Min. Pct. Pure Seed
60 %	Kentucky Bluegrass (<i>Poa pratensis</i>) varieties: North Star, Jefferson, Midnight, Rugby II, NuGlade (in equal parts)	80	95
10 %	Red Creeping Fescue (<i>Festuca rubra</i> spp <i>rubra</i>) varieties: Jasper II, Salsa, Shademaster (in equal parts)	85	98
10 %	Chewings Fescue (<i>Festuca rubra</i> spp <i>commutata</i>) varieties: Longfellow II, Intrigue, Ambassador, Shadow II (in equal parts)	85	98
10 %	Hard Fescue (<i>Festuca ovina</i>) varieties: Rescue II, Stonehedge, Oxford (in equal parts)	85	98
10 %	Perennial Ryegrass (<i>Lolium perenne</i>) varieties: Ascend, Wizard, Panther, Brightstar II	90	98

- C. Naturalizing Seed Mix: Provide certified seed mix, ERNMX-153, as provided by Ernst Conservation Seeds, LLP, or approved equivalent.
- D. Steep Slope Seed Mix: Provide certified seed mix, ERNMX-181, as provided by Ernst Conservation Seeds, LLP, or approved equivalent.
- E. Wet Meadow Seed Mix: Provide certified seed mix, ERNMX-122, as provided by Ernst Conservation Seeds, LLP, or approved equivalent.

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SECTION 32 93 00

PLANTS

PART 1 - GENERAL

1.01 SUMMARY

- A. This Section includes the following:
 - 1. Trees.
 - 2. Shrubs.
 - 3. Topsoil and soil amendments.
 - 4. Fertilizers and mulches.
 - 5. Stakes and guys.

1.02 SUBMITTALS

- A. Product certificates signed by manufacturers certifying that their products comply with specified requirements.
 - 1. Manufacturer's certified analysis for standard products.
 - 2. Analysis for other materials by a recognized laboratory made according to methods established by the Association of Official Analytical Chemists, where applicable.
 - 3. Label data substantiating that trees, shrubs, and planting materials comply with specified requirements.
 - 4. Product data for stakes, guys, webbing, watering bags, and landscape edging.
- B. Samples of each of the following:
 - 1. One (1) lb sample of organic and stone mulches required for Project, in labeled plastic bags.
 - 2. Twelve (12) inch sample of the landscape edging.
- C. Material tests:
 - 1. Material test reports from qualified independent testing agency indicating and interpreting test results relative to compliance of the following materials with requirements indicated.
 - 2. Analysis of imported topsoil.
- D. Planting schedule indicating anticipated dates and locations for each type of planting.
- E. Maintenance instructions recommending procedures to be established by Owner for maintenance of landscaping during an entire year. Submit before expiration of required maintenance periods.

1.03 QUALITY ASSURANCE

- A. Installer Qualifications: Engage an experienced Installer who has completed landscaping work similar in material, design, and extent to that indicated for this Project and with a record of successful landscape establishment.
- B. Nursery Stock:
 - 1. Provide quality, size, genus, species, and variety of trees and shrubs indicated, complying with applicable requirements of ANSI Z60.1 “American Standard for Nursery Stock”.
 - 2. Provide healthy, vigorous stock, grown in recognized nursery in accordance with good horticultural practice and free of disease, insects, eggs, larvae and defects such as knots, sun-scald, injuries, abrasions, or disfigurement.
- C. Topsoil Analysis:
 - 1. Engage at no cost to the Owner a qualified independent soil-testing agency to provide a soil analysis stating percentages of organic matter, inorganic matter (silt, clay, and sand), deleterious material, pH, and mineral and plant-nutrient content of topsoil with recommendations as to quantities of nitrogen, phosphorus, and potash nutrients and any limestone, aluminum sulfate, or other soil amendments to be added to produce a satisfactory topsoil.
 - 2. Include topsoil source information.
- D. Measurements:
 - 1. Measure trees and shrubs according to ANSI Z60.1 with branches and trunks or canes in their normal position.
 - 2. Do not prune to obtain required sizes. Take caliper measurements 6 inches above ground for trees up to 4-inch caliper size, and 12 inches above ground for larger sizes.
 - 3. Measure main body of tree or shrub for height and spread; do not measure branches or roots tip-to-tip.

1.04 DELIVERY, STORAGE, AND HANDLING

- A. Comply with Section 01 61 00, Common Product Requirements.
- B. Packaged Materials:
 - 1. Deliver packaged materials in containers showing weight, analysis, and name of manufacturer.
 - 2. Protect materials from deterioration during delivery and while stored at site.
- C. Trees and Shrubs:
 - 1. Deliver freshly dug trees and shrubs.
 - 2. Do not prune before delivery, except as approved by Architect.

3. Protect bark, branches, and root systems from sun scald, drying, sweating, whipping, and other handling and tying damage.
 4. Do not bend or bind-tie trees or shrubs in such a manner as to destroy natural shape.
 5. Provide protective covering during delivery.
 6. Do not drop trees and shrubs during delivery.
 7. Immediately after digging bare-root stock, pack root system in wet straw, hay, or other suitable material to keep root system moist until planting.
- D. Handle balled and burlapped stock by the root ball.
- E. Deliver trees and shrubs after preparations for planting have been completed and install immediately.
- F. Planting:
1. If planting is delayed more than six hours after delivery, set planting materials in shade, protect from weather and mechanical damage, and keep roots moist.
 2. Set balled stock on ground and cover ball with soil, peat moss, sawdust, or other acceptable material.
 3. Do not remove container-grown stock from containers before time of planting.
 4. Water root systems of trees and shrubs stored on site with a fine-mist spray. Water as often as necessary to maintain root systems in a moist condition.

1.05 PROJECT CONDITIONS

- A. Utilities:
1. Determine location of above grade and underground utilities and perform work in a manner which will avoid damage.
 2. Hand excavate, as required.
 3. Maintain grade stakes set by others until removal is mutually agreed upon by parties concerned.
- B. Excavation: When conditions detrimental to plant growth are encountered, such as rubble fill, adverse drainage conditions, or obstructions, notify Landscape Architect before planting.

1.06 COORDINATION AND SCHEDULING

- A. Coordinate installation of planting materials during normal planting seasons for each type of plant material required.
- B. Plant trees and shrubs between April 1 and June 1, or between September 1 and November 1.

1. Do not plant when the ground is frozen, or excessively wet, or during drought and heat of the summer.

1.07 WARRANTY

- A. General Warranty: The special warranty specified in this Article shall not deprive the Owner of other rights the Owner may have under other provisions of the Contract Documents and shall be in addition to, and run concurrent with, other warranties made by the Contractor under requirements of the Contract Documents.
- B. Special Warranty: Warrant the following living planting materials for a period of one year after date of Substantial Completion, against defects including death and unsatisfactory growth, except for defects resulting from lack of adequate maintenance, neglect, or abuse by Owner, abnormal weather conditions unusual for warranty period, or incidents that are beyond Contractor's control.
 1. Trees.
 2. Shrubs.
 3. Perennials and grasses.
- C. Remove and replace dead planting materials immediately unless required to plant in the succeeding planting season.
- D. Replace planting materials that are more than 25 percent dead or in an unhealthy condition at end of warranty period.
- E. A limit of one replacement of each plant material will be required, except for losses or replacements due to failure to comply with requirements.

PART 2 - PRODUCTS

2.01 TREE AND SHRUB MATERIAL

- A. General: Furnish nursery-grown trees and shrubs conforming to ANSI Z60.1, with healthy root systems developed by transplanting or root pruning. Provide well-shaped, fully-branched, healthy, vigorous stock free of disease, insects, eggs, larvae, and defects such as knots, sun scald, injuries, abrasions, and disfigurement.
- B. Grade: Provide trees and shrubs of sizes and grades conforming to ANSI Z60.1 for type of trees and shrubs required. Trees and shrubs of a larger size may be used if acceptable to Architect, with a proportionate increase in size of roots or balls.
- C. Label each tree and shrub with securely attached, waterproof tag bearing legible designation of botanical and common name.

- D. Only native plant material is used in the Project. Substitutions of non-native plants will not be accepted.
- 2.02 DECIDUOUS TREES
- A. Shade Trees: Single-stem trees with straight trunk, well-balanced crown, and intact single central leader, of height and caliper indicated, conforming to ANSI Z60.1 for type of trees required.
 - B. Small Trees: Small upright or spreading type, branched or pruned naturally according to species and type, and with relationship of caliper, height, and branching recommended by ANSI Z60.1.
 - C. Provide balled and burlapped trees.
- 2.03 SHRUBS
- A. Form and Size: Shrubs with not less than the minimum number of canes required by and measured according to ANSI Z60.1 for type, shape, and height of shrub.
 - B. Provide balled and burlapped or container grown shrubs.
- 2.04 CONIFEROUS EVERGREENS
- A. Form and Size: Normal-quality, well-balanced, coniferous evergreens, of type, height, spread, and shape required, conforming to ANSI Z60.1.
 - B. Provide balled and burlapped coniferous evergreens.
- 2.05 TOPSOIL
- A. Topsoil: ASTM D 5268, pH range of 5.5 to 7.5, organic content between 5% and 10%, free of stones 1 inch or larger in any dimension, roots, plants, sods, clay lumps and other extraneous materials harmful to plant growth.
 - B. Topsoil Source: Amend existing soil stockpiled on the site to produce topsoil. Supplement with imported topsoil when required. Obtain topsoil from naturally well-drained sites where topsoil occurs at least 4 inches deep; do not obtain from bogs or marshes.
- 2.06 SOIL AMENDMENTS
- A. Peat Humus: Finely divided or granular texture, with a pH range of 6 to 7.5, composed of partially decomposed moss peat (other than sphagnum), peat humus, or reed-sedge peat.
 - B. Manure: Well-rotted, unleached stable or cattle manure containing not more than 25 percent by volume of straw, sawdust, or other bedding materials; free

of toxic substances, stones, sticks, soil, weed seed, and material harmful to plant growth.

- C. Water: Potable.

2.07 FERTILIZER

- A. 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-form, phosphorous, and potassium in the following composition:
1. Composition for Trees and Shrubs: not less than 5 percent nitrogen, 0 percent phosphorous, and 5 percent potassium (5N-0P-5K), by weight.
 2. Composition based on soil reports: Nitrogen, phosphorous, and potassium in amounts recommended in soil reports from a qualified soil-testing agency.
 3. Rates for Shrubs: 2-3 lbs/100sq of planting bed.
 4. Rates for Trees: 5lbs/1 inch of trunk diameter.

2.08 MULCH

- A. Organic Mulch: Organic mulch, free from deleterious materials and suitable as a top dressing of trees and shrubs, consisting of one of the following:
1. Single hammer milled hardwood bark.
- B. Stone Mulch for Gravel Drip Strip: Hard, durable natural round gravel, washed free of loam, sand, clay, and other foreign substances, color: range of tan and brown, complying with NYS DOT Article 703-02 for screened gravel and the following gradation requirements:

<u>Sieve Size</u>	<u>Percent Passing by Weight</u>
1-inch	100
1/2-inch	90-100
1/4-inch	0-15
No. 200	0-1

2.09 STAKES AND GUYS

- A. Underground Anchor System: Medium or large anchor strap system with drive in heavy-duty anchors for trees.
- B. Upright and Guy Stakes: Rough-sawn, sound, new hardwood, free of knots, holes, cross grain, and other defects, 2 by 2 inches by 84 inches long, pointed at one end.

- C. Tree Tie Webbing: 3/4-inch wide polypropylene tree tie webbing tape soft and smooth, with 900 lb tensile strength, lock stitch design to prevent unraveling, and very low stretch.
- D. Flags: Standard surveyor's plastic flagging tape, white, 6 inches long.

2.10 MISCELLANEOUS MATERIALS

- A. 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 instructions.
- B. Watering Bags: TreeGator or approved equivalent 20 gal. watering bags with reinforced cording and drip holes. Use one bag per each tree or shrub.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Examine areas to receive landscaping for compliance with requirements and for conditions affecting performance of work of this Section. Do not proceed with installation until unsatisfactory conditions have been corrected.

3.02 PREPARATION

- A. Lay out individual tree and shrub locations and areas for multiple plantings. Stake locations, outline areas, and secure Architect's approval before the start of planting work. Make minor adjustments as may be required.

3.03 PLANTING SOIL PREPARATION

- A. Before mixing, clean topsoil of roots, plants, sods, stones, clay lumps, and other extraneous materials harmful to plant growth.
- B. Mix soil amendments and fertilizers with topsoil at rates indicated. Delay mixing fertilizer if planting does not follow placing of planting soil within a few days.
- C. A "Planting Soil Amendments Schedule" is included at the end of this Section.
- D. For tree pit or trench backfill, mix planting soil before backfilling and stockpile at site.

3.04 EXCAVATION FOR TREES

- A. Pits and Trenches:

1. Excavate with vertical sides and with bottom of excavation slightly raised at center to assist drainage. Loosen hard subsoil in bottom of excavation.
 2. Balled and Burlapped Trees: Excavate approximately 2 times as wide as ball diameter and equal to ball depth.
 3. In areas of crushed stone backfill, excavate crushed stone minimum 5 times as wide as ball or container diameter and 18 inches minimum deeper than depth of a root ball. Compact imported soil under root balls to avoid tree or shrub sinking.
- B. Dispose of subsoil removed from landscape excavations. Do not mix with planting soil or use as backfill.
- C. Obstructions:
1. Notify Architect if unexpected rock or obstructions detrimental to trees or shrubs are encountered in excavations.
 2. Hardpan Layer: Drill 6-inch-diameter holes into free-draining strata or to a depth of 10 feet, whichever is less, and backfill with free-draining material.
- D. Drainage: Notify Architect if subsoil conditions evidence unexpected water seepage or retention in tree or shrub pits.
- E. Fill excavations with water and allow to percolate out, before positioning trees and shrubs.

3.05 PLANTING TREES AND SHRUBS

- A. Set balled and burlapped stock plumb and in center of pit or trench with top of ball raised above adjacent finish grades as indicated.
- B. Place stock on bottom of planting pit.
- C. Remove burlap and wire baskets from tops of balls and partially from sides, but do not remove from under balls. Remove pallets, if any, before setting. Do not use planting stock if ball is cracked or broken before or during planting operation.
- D. Place backfill around ball in layers, tamping to settle backfill and eliminate voids and air pockets. When pit is approximately 1/2 backfilled, water thoroughly before placing remainder of backfill. Repeat watering until no more is absorbed. Water again after placing and tamping final layer of backfill.
- E. Set container-grown stock plumb and in center of pit or trench with top of ball raised above adjacent finish grades as indicated.
- F. Carefully remove containers so as not to damage root balls.

- G. Place stock on bottom of planting pit.
- H. Place backfill around ball in layers, tamping to settle backfill and eliminate voids and air pockets. When pit is approximately 1/2 backfilled, water thoroughly before placing remainder of backfill. Repeat watering until no more is absorbed. Water again after placing and tamping final layer of backfill.
- I. Dish and tamp top of backfill to form a 3-inch- high mound around the rim of the pit. Do not cover top of root ball with backfill.

3.06 TREE GUYING AND STAKING

- A. Underground Anchor System: Use medium or large anchor strap system with drive in heavy-duty anchors for trees. Use a drive rod (1m – 1.5 m length) to drive anchors in the ground along the rootball (manual or mechanical). Provide necessary anchoring kit size based on size of root ball and size of tree.
- B. Upright Staking and Tying: Stake trees of 2- through 5-inch caliper. Stake trees of less than 2-inch caliper only as required to prevent wind tip-out. Use a minimum of 2 stakes of length required to penetrate at least 18 inches below bottom of backfilled excavation and to extend at least 60 inches above grade. Set vertical stakes and space to avoid penetrating balls or root masses. Support trees with tree tie webbing but in a manner as to avoid rigid restraint of tree movement.
- C. Guying and Staking: Guy and stake evergreen trees unless otherwise indicated. Securely attach no fewer than 3 guys to stakes 30 inches long, driven to grade. Attach flags to each webbing, 30 inches above finish grade.

3.07 TREE AND SHRUB MAINTENANCE

- A. Maintain trees and shrubs by pruning, cultivating, watering, weeding, fertilizing, restoring planting saucers, tightening and repairing stakes and guy supports, and resetting to proper grades or vertical position, as required to establish healthy, viable plantings.
- B. Spray as required to keep trees and shrubs free of insects and disease. Restore or replace damaged tree wrappings.
- C. Maintain trees and shrubs for the following period:
 - 1. Maintenance Period: 12 months following Substantial Completion.

3.08 TREE AND SHRUB PRUNING

- A. Prune, thin, and shape trees and shrubs according to standard horticultural practice. Prune trees to retain required height and spread. Do not cut tree

leaders; remove only injured or dead branches from flowering trees. Prune shrubs to retain natural character. Shrub sizes indicated are size after pruning.

3.09 MULCHING

- A. Mulch backfilled surfaces of pits, trenches, planted areas, and other areas indicated.
- B. Organic Mulch:
 - 1. Apply the following average thickness of organic mulch and finish level with adjacent finish grades. Do not place mulch against trunks or stems.
 - 2. Thickness: 3 inches.

3.10 INSTALLATION OF MISCELLANEOUS MATERIALS

- A. Apply antidesiccant using power spray to provide an adequate film over trunks, branches, stems, twigs, and foliage.
- B. When deciduous trees or shrubs are moved in full-leaf, spray with antidesiccant at nursery before moving and again 2 weeks after planting.

3.11 CLEANUP AND PROTECTION

- A. During landscaping, keep pavements clean and work area in an orderly condition.
- B. Protect landscaping from damage due to landscape operations, operations by other contractors and trades, and trespassers. Maintain protection during installation and maintenance periods. Treat, repair, or replace damaged landscape work as directed.

3.12 DISPOSAL OF SURPLUS AND WASTE MATERIALS

- A. Disposal: Remove surplus soil and waste material, including excess subsoil, unsuitable soil, trash, and debris, and legally dispose of it off the Owner's property.

3.13 PLANTING SOIL AMENDMENTS SCHEDULE

- A. Tree Pits or Trenches: Provide soil amendments in not less than the following quantities:
 - 1. Ratio of loose peat humus to topsoil by volume: 2 parts.
 - 2. Weight of commercial fertilizer per cu. ft.: 1/2 lbs.
- B. Shrub Beds: Provide soil amendments in not less than the following quantities:
 - 1. Ratio of loose peat humus to topsoil by volume: 2 parts.

2. Weight of commercial fertilizer 100 sq. ft.: 2-3 lbs.

+ + END OF SECTION + +