Buffalo Outer Harbor Access and Activation Civic Project - Phase 2

WILKESON POINTE

225 Fuhrmann Blvd, Buffalo, NY

ERIE CANAL HARBOR DEVELOPMENT CORPORATION

Steven Ranalli, VP of Waterfront Development

Erie Canal Harbor Development Corporation 95 Perry Street, 5th Floor Buffalo, NY 14203

Volume 1 of 2



Prime Consultant

TWMLA – A Fisher Associates Studio 1001 West Seneca Street Suite 201 Ithaca. NY 14850

Architect

Chiang | O'Brien Architects, DPC 214 North Aurora Street Ithaca, NY 14850

Food Service Consultant

Clevenger Frable LaVallee 39 Westmoreland Ave White Plains, NY 10606

Lighting Designer

Tillett Lighting Design Associates 15 Maiden Lane Suite 508 New York, NY 10038

Structural/Civil Engineer

WSP USA 50 Lakefront Boulevard, Suite 111 Buffalo NY 14202

Environmental Engineer

The LiRo Group 690 Delaware Avenue Buffalo NY 14209

M/E/P Engineer

Encorus Group 23 Mechanic Street Springville, NY 14141

Habitat Restoration

Biohabitats, Inc. Great Lakes Bioregion 2026 Murray Hill Road, Suite 102 Cleveland, OH 441

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Erie Canal Harbor Development Corporation Outer Harbor Phase 1C – Wilkeson Pointe Improvements

NOTICE TO BIDDERS

<u>Bids</u>: Bid proposals shall be submitted as described in the **Information to Bidders**.

<u>Project Description:</u> This project is located at Wilkeson Pointe at the Buffalo Outer Harbor and consists of habitat restoration, parking lot improvements, improved pedestrian and bike paths, and construction of a small amenity building for restrooms and storage.

<u>Pre-Bid Meeting</u>: A non-mandatory pre-bid meeting will be held on **May 12, 2023, at 10:00** a.m. at the project site.

<u>Questions</u>: Questions on this solicitation (including Requests For additional Information) must be submitted in writing and provided to the Owner no later than **May 19, 2023, at 4:00 p.m.** Requests received thereafter will not be addressed. Any questions or comments regarding this solicitation may be directed to the dedicated email included in the Information to Bidders. Contact with any other person at ECHDC or ESDC or the State regarding this solicitation is prohibited by law.

Contracts: The following contract will be bid at this time:

ECHDC OUTER HARBOR PH1C-01 – SITE CONSTRUCTION

ECHDC OUTER HARBOR PH1C-02 – GENERAL TRADES

ECHDC OUTER HARBOR PH1C-03 – MECHANICAL TRADES (PLUMBING/HVAC)

ECHDC OUTER HARBOR PH1C-01 – ELECTRICAL WORK

<u>Contract Documents</u>: Contract documents will be available for examination at the locations indicated below:

Contract documents will be posted on the New York Contract Reporter and Erie Canal Harbor Development Corporation website. Reproductions of the Documents will be at the cost of the potential contractor.

<u>Form of Bid:</u> Bids must be submitted upon the proposal form(s) furnished in the Proposal Booklet, and must not be detached from the booklet. Addendum pages, if issued, shall be stapled to the original pages and submitted as required attached to the original bid form.

Bid Guarantee: Each bid shall be accompanied by an acceptable form of bid guarantee in an amount equal to ten percent (10%) of the amount of the base bid payable to the Erie Canal Harbor Development Corporation as a guarantee that if the bid is accepted, the bidder will execute the Contract within ten (10) days after the notice to proceed. Failure to submit a bid bond or certified check with bid will result in automatic disqualification of bid. Failure to submit a bid on the proposal form(s) furnished in the Proposal Booklet, or submittal of form(s) detached from the Proposal Booklet will result in automatic disqualification of bid.

<u>Definitions</u>: The Owner shall be defined as the Erie Canal Harbor Development Corporation (ECHDC), a subsidiary of the New York State Urban Development Corporation, d/b/a Empire State Development Corporation (ESDC), 633 Third Ave, New York, NY 10017. The Construction Manager shall be defined as Turner Construction Company, 50 Lakefront Blvd, Buffalo, NY 14202. The design consultants are Bergmann Associates and Trowbridge.

NOTICE TO BIDDERS 000001 - 1

Erie Canal Harbor Development Corporation Outer Harbor Phase 1B – Bell Slip Improvements

<u>Opening of Bids</u>: At the date and time noted for receipt of proposals, the proposals will be publicly opened and read aloud via a conference call. Only those bids in the hands of the Erie Canal Harbor Development Corporation, available to be read at the time and date designated above will be considered.

<u>Owner's Rights</u>: The Erie Canal Harbor Development Corporation reserves the right to waive any informalities, or reject any or all bids, or to make any contract which it deems to be in the best interest of the Erie Canal Harbor Development Corporation or the project sponsors.

Bid Withdrawal: No bidder may withdraw his bid within ninety (90) days after actual opening thereof.

Non-Discrimination and Contractor & Supplier Diversity: Empire State Development's Non-Discrimination and Contractor & Supplier Diversity policy will apply. The contractor shall be required to use Good Faith Efforts to achieve Minority and Women-owned Business Enterprise ("MWBE") participation of no less than 15% MBE and 15% WBE related to the total value of ESD's funding. MWBE contractors are encouraged to apply. The contractor shall also be required to use Good Faith Efforts to achieve Service-Disabled Veteran-Owned Business (SDVOB) participation of no less than 6% related to the total value of ESD's funding. Additional requirements and required form can be found in the Bid Forms section of the bid package.

Prevailing Wages: Prevailing wage provisions will apply.

Project Duration:

Contract duration is from the **tentative award date**, **July 10**, **2023** to Final Completion Date, **December 31**, **2024.** An interim notice to proceed shall be granted to the apparent low bidder to allow for commencement of submittals and shop drawings and construction fencing.

ECHDC expects **substantial completion** to be **October 31, 2024.** The Contractor shall undertake project efforts and required correspondence in earnest and with diligence to meet the schedule and maintain progress despite adverse seasonal weather conditions.

<u>Qualifications:</u> All bidders must complete all sections of the Contractor Qualifications Statement for a bid to be declared responsive (See **Bid Forms, Attachment #1 – Contractor Qualifications Statement**). The contract will be awarded to the lowest responsible bidder that meets the minimum qualifications.

The low bidder shall demonstrate its responsibility to perform and complete all required work by submitting a statement of its experience and of any subcontractors which the low bidder intends to use to perform the work. The low bidder shall include his plan or program for providing sufficient labor and equipment to perform the project as detailed by the project documents, within the allotted time frame and sequencing for the project. Low bidder is encouraged to employ local labor.

The low bidder must demonstrate a minimum of five (5) years of experience and the completion of five (5) projects of similar scope and value. The work history shall also demonstrate project experience under accelerated work schedules, completion of work under critical deadlines and projects where site work was performed in adverse winter weather conditions. Additional qualification requirements and certifications as required by the individual technical specifications must be met by either the Prime Contractor or a qualified Subcontractor.

The prime Contractor shall obtain bid and performance bonds directly from a Surety Company with a minimum rating by A.M. Best of (A-) in the "Best's Key Rating Guide". The surety firm must be licensed to bond construction projects in the state of New York. The Prime Contractor and/or subcontractor(s) must 000001 - 2 NOTICE TO BIDDERS

Erie Canal Harbor Development Corporation Outer Harbor Phase 1C – Wilkeson Pointe Improvements

demonstrate the experience level for the various work elements as listed below:

Empire State Development may require the low bidder to further demonstrate its responsibility to perform and complete the work by submitting additional information regarding the low bidder's experience, obtaining labor/work force and financial resources. The prime Contractor shall demonstrate that they have the financial resources to perform the work. If requested by Empire State Development, additional information must be submitted by the low bidder within seven (7) calendar days of the request. All information pertaining to the bidder's financial resources shall be submitted by a Certified Public Accountant.

Other:

Contractor's performing project work must be duly licensed in the City of Buffalo and by other entities governing the work. Contractor's bid is to include an acknowledgment that the Contractor (and their subcontractors and suppliers) possesses the necessary licenses (or have filed licensing applications) with the City of Buffalo. Contractor's bid is to also include an acknowledgement that the Contractor (and their subcontractors and suppliers), are licensed by governing agencies of jurisdiction as required to complete the work and possess the requisite capabilities required by the Contract Documents including specific qualifications identified therein.

Contractor is responsible to ascertain, obtain and pay all costs for any additional licensing and permits needed to perform the work. Permits needed to complete the work, and to be obtained by the contractor are expected to include (but not necessarily limited to) City of Buffalo Construction Permits.

All respondents to this procurement will be required to comply with ESDC's form of agreement and insurance requirements.

NOTICE TO BIDDERS 000001 - 3

OWNER / CONTRACTOR SUPPLEMENTARY CONDITIONS BETWEEN

ERIE CANAL HARBOR DEVELOPMENT CORPORATION

AND

FOR

BUFFALO OUTER HARBOER; WILKESON POINTE IMPROVEMENT PROJECT

Dated: July 14, 2022

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EXHIBIT B

Labor and Material Payment Bond

SUPPLEMENTARY CONDITIONS

Erie Canal Harbor Development Corporation ("Owner"), a subsidiary of New York State Urban Development Corporation d/b/a the Empire State Development Corporation ("ESDC"), having an office at 95 Perry Street, 5th Floor, Buffalo, NY 14203.

For the purposes of this Contract, the term "Contractor" shall mean the awarded corporation for the Wilkeson Pointe Improvement Project as selected by the Owner.

SECTION 1

CONTRACT PRICE

Contractor has been selected to provide construction services as denoted in the Drawings, Project Manuals and all other Contract Documents referenced herein (the "Buffalo Outer Harbor, Wilkeson Pointe Improvement Project" or the "Project") upon the terms and conditions hereinafter provided and agrees to perform all work and labor required, necessary, proper for or incidental to the work and to furnish all supplies and materials required, necessary, proper for or incidental to the work for the total not to exceed the sum of (the "Contract Price"), which sum shall be deemed to be in full consideration for the performance by Contractor of all the duties and obligations of Contractor under the Contract (the "Project").

SECTION 2

SCOPE OF WORK, MATERIALS AND LABOR

2.1 Owner's Representative

The Owner may designate a representative to act on its behalf with respect to certain obligations and duties under this agreement related to the administration of the Project (the "Owner's Representative"). The Owner's Representative may be an employee of the Owner, ESDC or an independent consultant. The Owner may change the designation of the Owner's Representative, in its sole discretion, with written notice to the Contractor. The Owner's Representative shall be the only individual with authority to bind the Owner under the terms of this Agreement. More than one Owner's Representative may be designated by the Owner from time to time during the Project. The Owner's Representative shall be Turner Construction. For the purposes of this Agreement, any decision, action or other responsibility of the Construction Manager shall be deemed to be a duty, right or obligation of the Owner's Representative. Furthermore, any decision or action under this Agreement which may bind the Owner may only be made by the Owner's Representative.

2.2 Architect and Construction Manager

- (a) The term "Architect" shall mean TWLA (a Fisher Associates Landscape Architecture Design Studio) as the Architect/Engineer retained by the Owner or ESDC to provide design or consulting services related to Contractor's Work as the Owner may designate from time to time.
- (b) A Construction Manager, Turner Constrction, has been engaged for this Project to serve as an advisor to Owner and to provide assistance in administering the Contract for construction between Owner and each Contractor, according to a separate contract between Owner and Construction Manager.

2.3 <u>Definition of Work</u>

- (a) All materials to be furnished and labor and work to be performed and completed by Contractor and all duties and obligations of Contractor as required in the Contract Documents are herein collectively referred to as the "Work". Contractor shall perform and complete for the Owner all Work required by and in conformity with the Contract Documents for this contract.
- (c) Pursuant to section 220 (3-a) of the New York State Labor Law, each Contractor and Subcontractor shall maintain payroll records, subscribed and affirmed by him as true, showing the hours and days worked by each worker, laborer, or mechanic, the occupation at which he worked, the hourly wage rate paid and the supplements paid or provided for this project. The Contractor shall submit such payroll records for himself and each of his Subcontractors, 30 days after the issuance of the first payroll and every 30 days thereafter until submission of the last payroll for this project, including weeks not worked. Failure to submit payroll records in the accordance with Section 220 (3-2) of the New York State Labor Law shall be sufficient condition to withhold progress payments, until compliance. The payroll records shall be submitted to the Construction Manager.

2.4 Contract Documents

The "Contract Documents" shall consist of the following:

- (a) Information to Bidders
- (b) All documents and forms listed in the Information to Bidders Section IX
- (c) Project Manual and Addenda, if any, as identified in the project manual (such Specifications and Addenda, as the same may be amended from time to time, are herein referred to as the "Specifications").
- (d) Construction Documents.
- (e) The Payment Bond and Performance Bond in Exhibit A and B.
- (f) Bid Form including alternates and unit prices accepted by the Owner as applicable.
- (g) Change Orders

The Contract Documents form the contract between the Owner and Contractor. Reference in the Contract Documents to "the Contract", "the contract", "this contract", or "the Construction Contract" shall be deemed to include all of the Contract Documents. References to "this Agreement", "the Agreement", or "the agreement" shall refer to this instrument, which is one of the Contract Documents.

2.5 Intent of Contract Documents

(a) The intent of the Contract Documents is to include in the Work all labor and materials, insurance, tools, equipment, permits, licenses, taxes, approvals, transportation, surveys, testing, field engineering, and other professional services water, heat, utilities, transportation and other professional services (other than the services of the architect, engineers, attorneys and the inspection, survey and testing services of the Owner) whether temporary or permanent and whether or not incorporated or to be incorporated in the work and any other items required to execute and complete the Work satisfactorily and in accordance with the Contract Documents.

Contractor shall perform and complete the Work in accordance with this intent and shall perform all work incidental thereto or as is usually performed in connection therewith, or as is reasonably inferable therefrom, it being the intention that all work usually performed by the trade covered by this Agreement and necessary to produce the intended result be performed by Contractor whether or not specifically covered by the Contract Documents.

- (b) The Contract Documents are complementary and what is called for one shall be as binding as if called for by all.
- (c) If any conflicts or ambiguities are found or between the Drawings and Specifications, or among any of the Contract Documents, they shall be brought to the attention of the Architect immediately for resolution. The Contract Documents will be interpreted so as to secure in all cases the most substantial and complete performance of the Work as is most consistent with the needs and requirements of the Work such that the best quality or greatest quantity of labor or material is provided. In the event of a conflict between the drawings and the finish schedule, the intent as interpreted by the Architect, shall govern.
- (d) Addenda to parts of the Contract Documents are for the purpose of varying, modifying, rescinding or adding to portions of the Contract Documents. Where an addendum modifies a portion of a paragraph or a section, the remaining paragraphs, sections or portions thereof shall remain in force, unless otherwise stated in the addendum.
- (e) Captions, headings, cover pages and table of contents contained in the Contract Documents are inserted only to facilitate reference and for convenience and in no way define, limit or describe the scope, intent or meaning of any provision of the Contract.
- (f) Words and abbreviations which have well-known technical or trade meanings are used in the Contract Documents in accordance with such recognized meanings.
- (g) A typical or representative detail indicated on the Drawings shall constitute the standard for workmanship and material throughout corresponding parts of the Work. Where necessary, and where reasonably inferable from the Drawings or Specifications, Contractor shall adapt such representative detail for application to such corresponding parts of the Work. The details of such adaption shall be subject to prior approval by Architect. Repetitive features shown in outline on the Drawings shall be in exact accordance with corresponding features completely shown.
- (h) The layout of utilities, mechanical and electrical systems, equipment, fixtures, piping, ductwork, conduit, specialty items and accessories indicated on the Drawings is diagrammatic and is not complete. Contractor shall be responsible for locating all such items.
- (i) It is intended that all mechanical and electrical systems will be complete and in proper operation and that all construction components will be complete and in compliance with accepted construction practice upon completion of the Work. Items normally required for proper operation of mechanical and electrical systems, or to complete otherwise incomplete construction, they shall be included by the Contractor, unless he sought and received contradictory interpretation or clarification from the Architect.

2.6 Completion of Drawings and Specifications

Contractor acknowledges that there are items of Work which may not be drawn or specified with complete detail in the Drawings and Specifications but which are required for the completion of the Work. Any such item, when identified as part of the reasonable development of the Work, shall be drawn or specified by Architect in consultation with Contractor. When such drawing or specification is approved by the Owner, the Drawing or Specification so approved shall thereupon be part of the Contract Documents and the item of Work shall be performed by Contractor as part of the Work without further action or order of the Owner and without any increase in the Contract Price as if such Drawing and Specification were originally included in the Contract Documents.

2.7 Contractor's Obligations

(a) Contractor shall in a good and workmanlike manner perform all the Work required by the Contract Documents in accordance with the highest standards on the construction industry on projects of similar complexity and direct the Work using its best skill and attention. Contractor shall be solely responsible for all construction means, methods, techniques, sequences and procedures within the scope of Contractor's Work.

- (b) Contractor shall be responsible for the safety, efficiency and adequacy of Contractor's plant, equipment, appliances and methods, and for damage which may result from failure or improper construction, maintenance or operation of such plant, equipment, appliances and methods. Contractor shall comply with all terms of the Contract Documents do, carry on and complete the entire Work under the direction of and to the satisfaction of the Owner.
- (c) Contractor shall provide any engineering services, scaffolding, hoists, or any temporary structures, such as bracing and supports, light, heat, power, toilets, water or temporary connections which are required by this Agreement or necessary to perform the Work.
- (d) Contractor shall deliver all materials at such times and in such quantities as will insure the speedy and uninterrupted progress of the Work. Contractor shall handle and take care of all materials used in performance of the Work whether furnished by Contractor of the Owner, as the same are delivered to the site and shall be solely responsible for the loss, damage, theft, security and condition of the same. After final completion and acceptance of the Work, or sooner if requested by the Owner, Contractor shall remove all surplus materials (excluding any attic stock required by the Contract Documents) and scaffolding furnished by it which have not been incorporated in the Work.
- (e) Unless otherwise provided in the Contract Documents, Contractor shall secure and pay for all permits and governmental fees, licenses and inspections necessary for the proper execution and completion of the Work. Contractor shall give all notices and comply with all laws, ordinances, rules, regulations and lawful orders of any public authority bearing on the variance with any applicable laws in any respect. Contractor shall promptly notify the Owner, in writing, and any necessary changes shall be accomplished by appropriate modification. If Contractor performs any Work contrary to such laws, ordinances, rules and regulations, it shall assume full responsibility therefore and shall bear all costs attributable to correcting such deficiencies in the Work.
- (f) Contractor shall be responsible for keeping the site neat and broom clean on a regular basis.

2.8 "Or Equal" Clause

- (a) The products, materials and equipment of manufacturers referred to in the Specifications and on the Drawings are intended to establish the standard of quality and design required by Architect; however, materials of manufacturers, other than as specified, may be used if equivalent and approved by Architect and the Owner.
- (b) Architect will review all proposed substitute materials, fabrications or other specified items. Architect will make written recommendations of acceptance or rejection to the Owner. The Owner will then issue to Contractor written approval or rejection of the substitution in the Owner's sole discretion.
- (c) If Contractor desires to use a substitute item, Contractor shall make an application to Architect in writing within sufficient lead time (having regard to the progress of the Work, the period of delivery of the goods concerned and adequate time for the Owner and Architect's review) stating and fully identifying the proposed substitution with substantiating data, samples and brochures of the item proposed. It is Contractor's responsibility to provide sufficient evidence by tests or other means to support any request for approval of substitutions. Any item by the manufacturer other than those cited in the Contract Documents, or of brand name or model number or of generic species other than those cited in the Contract Documents will be considered a substitution.
- (d) Prior to proposing any substitute item, Contractor shall satisfy itself that the item Contractor proposes is, in fact, equal to that specified and has demonstrated such equality by at least three years satisfactory service, that it will fit into the space allocated and within the load allocated for the same, that it affords comparable ease of operations, maintenance and services, that its appearance, longevity and suitability for the climate and use are comparable to that specified, and that the substitution requires no change in dimension or design of any

other work of Contractor or any other contractor or in the time require for the performance thereof.

- (e) Acceptance of substitutions shall not relieve Contractor from responsibility for compliance with all the requirements of the Contract Documents. Notwithstanding an acceptance of a substitution by the Owner, any cost attributable to changes in other parts of the Work or the work of other contractors that are required by substitutions shall be the responsibility of Contractor, including the cost of all design and redesign services related thereto incurred by Architect and its consultants.
- (f) The Completion Date shall not be extended by any circumstances resulting from a proposed substitution by the Contractor or evaluation thereof by Architect or Owner, nor shall Contractor be entitled to any compensation for any delay cause thereby or related thereto.

2.9 Nomenclature

The terms Construct, Construction, Build, Work, etc. shall be construed to include all work shown on the plans. The terms Architect, Engineer, Project Architect, Landscape Architect, Corporation's Representative, the Owner, Corporation, the Owner's Representative, and similar derivations exist within the Contract Documents and shall be construed to mean the Owner's Representative.

2.10 <u>Hazardous Waste Disposal Transportation</u>

Contractors shall, as part of its Work, in addition to complying with any and all applicable laws, rules or regulations concerning the removal, abatement, handling, transportation and disposal of all hazardous waste (as that term is most broadly defined under local, state or federal laws) encountered in the performance of its Work, be responsible to pay all fees, taxes, levies or assessments; obtain and execute all permits, licenses, manifests, logs, reports, certifications or other documents necessary to effectuate the lawful removal and disposal of such hazardous waste; and obtain an identification number from the United States Environmental Protection Agency or any other necessary identifying information, all in a timely manner to permit the timely performance of the work. The obligations of Contractor under this Section shall be performed as part of the Contract Price without any additional compensation from the Owner. Contractor shall be aware of the presence of contaminated materials and should refer to the Soils Management section of the Project Manual for procedures.

SECTION 3

COMMENCEMENT AND COMPLETION OF WORK AND OCCUPANCY

3.1 Start of Work and Completion

- (g) Contractor shall commence the Work upon receipt of a written notice to proceed signed by the Owner. Contractor shall thereafter prosecute the Work to be performed hereunder diligently, without interruption, and in accordance with the time requirements of the Project as determined and directed by the Owner.
- (h) Contractor shall Substantially Complete, as defined by Section 7.6, all of the Work in accordance with the Contract Documents to the satisfaction of Architect and the Owner on or before October 31, 2024 with Final Completion on or before December 31, 2024. Contractor hereby acknowledges that the time for the performance of its Work is of the essence. Contractor acknowledges that any failure by it to timely complete the performance of its Work under this Contract will cause significant consequential damages to be incurred by the Owner. The Completion Date shall not be extended except by Change Order issued and signed by the Owner in accordance with this Agreement. The completion date shall not be extended except by Change Order issued and signed by the Owner in accordance with this Agreement. Liquidated Damages will be charge for unexcused delay of Work

beyond the date of completion and/or substantial completion. As actual damages for any delay in completion of the work which the Contractor is required to perform under this Contract are impossible to determine, the Contractor shall be liable for an shall pay to the Owner the sum of Five Thousand Dollars (\$2500.00) as fixed, agreed and Liquidated Damages for each calendar day of delay from the date stipulated for completion or substantial completion of Work.

3.2 <u>Cooperation with other Contractors</u>

- (a) During the progress of the Work, other contractors may be engaged in performing work for the Owner. Contractor shall cooperate and coordinate its Work with the work of said other contractors, as applicable, and in such manner as the Owner may direct.
- (b) If the Owner shall determine that Contractor is failing to coordinate the Work with the work of other contractors:
 - 1. The Owner shall have the right to withhold any payments due under the Contract until its directives are complied with by Contractor; and
 - 2. Contractor shall indemnify and hold the Owner harmless from any and all claims or judgments for damages and from any costs or damages to which the Owner may be subjected or which the Owner may suffer or incur by reason of Contractor's failure to coordinate its Work with that of other contractors.
- (c) If Contractor notifies the Owner in writing that another contractor on the site is failing to coordinate the work of said contractor with Contractor's Work, the Owner shall investigate the charge. If the Owner finds it to be true, the Owner shall promptly issue such directions to the other contractor with respect thereto as the situation may require. The Owner shall not be liable for any damages suffered by Contractor by reason of the other contractor's failure to promptly comply with the directions so issued by the Owner or by reason of another contractor's default in coordinating its work with that of Contractor.
- (d) Should Contractor sustain any damage through any act or omission of any other contractor having a contract with the Owner or through any act or omission of any subcontractor of said other contractor, Contractor shall have no claim against the Owner for said damage.
- (e) Should any other contractor having, or who shall have, a contract with the Owner, sustain damage through any act or omission of Contractor or through any act or omission of a subcontractor, Contractor shall reimburse said other contractor for all said damages and shall indemnify and hold the Owner harmless from all said claims.
- (f) The Owner does not guarantee the performance of any contractor. Contractor acknowledges these conditions and agrees to bear the risk of all delays including, but not limited to, delays caused by the presence of operations of other contractors and the Owner shall not incur any liability by reason of any delay to Contractor's Work by reason of the performance of work or defaults by other contractors.
- (g) Where the Contractor shall perform Work in close proximity to work of other contractors, the Contractor shall assist in arranging space conditions to make satisfactory adjustment for the performance of any work in such areas. If the Contractor's Work interferes with work of other contractors, the Contractor shall make changes necessary to correct such conditions.

3.3 Notice of Delay

In addition to any information required elsewhere in this Agreement and without limiting any other provision of this Agreement including Contractor's obligation to Substantially Complete the Work by the Completion Date, should Contractor be, or anticipate being delayed or disrupted in performing the Work hereunder for any reason, including without limitation, its financial condition or Contractor's general non-payment of its debts as such debts become due, it shall within three (3) days after the commencement of any condition which is causing or is threatening to cause such delay or disruption, notify the Owner in writing of the effect of such condition upon the Completion

Date. Contractor shall state why and in what respects the condition is causing or is threatening to cause delay, identify specific contract milestones that will be affected and provide as estimate of the duration of the delay. Failure to strictly comply with this notice requirement shall be sufficient cause to deny Contractor's change in the Project Schedule and/or Completion Date. Nothing in this section or Contractor's compliance with its terms should be deemed to obligate the Owner to grant a change in the Project Schedule or the Completion Date or to restrict the Owner's right to recover damages for delay.

3.4 Extension of Time

Contractor may be entitled to an extension of time for delays in the performance of the Work cause solely by the acts or omissions of Architect or the Owner, or unforeseeable causes beyond the control and without the fault or contributing negligence of Contractor including, but not limited to, acts of God, acts of the public enemy, unforeseen or unforeseeable acts of any government body, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes or unusually severe weather; provided Contractor shall have used its best efforts and diligently sought to have minimized any such period of delay, by taking whatever measures are necessary, including with limitation, if applicable, seeking alternate sources of materials, other subcontractors or other facilities in which to perform the required construction operations; and provided, further, that notice is given to the Owner pursuant to the requirements of the immediately preceding paragraph.

3.5 No Claim for Delay Damages

Contractor agrees to make no claim for damages for delay in the performance of this contract occasioned by any act or omission to act, including active interference, of the Owner or any of its agents, other contractors, or representatives and agrees that any such claim shall be fully compensated for by an extension of time to complete performance of such Work that is delayed in accordance with the provisions for obtaining an extension of time specified herein. Contractor alone hereby specifically assumes the risk of all delays, obstructions, or interferences of any kind or duration whatsoever, whether or not within the contemplation of the parties, and whether or not foreseeable or unforeseeable and agrees that its sole remedy is an extension of time where applicable.

SECTION 4

METHOD, SCHEDULE AND TERMS OF PAYMENT

4.1 Contract Payment Breakdown and Requisition

- (a) Contractor's applications for partial payments ("Requisitions") and its application for final payment ("Final Requisition") are to be submitted to the Owner, or its designee, and Architect in (6) copies in the manner hereinafter provided (see Exhibit J). Each Requisition must be supported by such data substantiating Contractor's right to payment as the Owner may require.
- (b) Prior to the submission of the first Requisition, Contractor shall present to the Owner for approval a contract payment breakdown (the "Contract Payment Breakdown") (See Exhibit N) itemizing the dollar values for the various trades which comprise the Work, including quantities where applicable, which in the aggregate equal the Contract Price. The Contract Payment Breakdown shall be prepared in such form as included in the Contract Documents and supported by such data to substantiate its correctness as the Owner may require. It is understood and Contractor acknowledges that the model contract payment breakdown is included with the Contract Documents as an administrative tool for the purpose of illustrating a format and minimum level of detail required for the Contract Payment Breakdown shall not be changed or revised in any way without the Owner's written consent and shall become part of this Agreement.

(c) On any Requisition, Contractor shall be entitled to partial payment on account of the Contract Price in an amount equal to the total of:

The value of the portions of the Work completed and acceptable to the Owner and approved by the Owner's representative based upon the percentage of completion of each item specified on the Contract Payment Breakdown, less Retainage specified under Section 4.5 on the total amount so computed, and less any additional withholdings deemed necessary by the Owner pursuant to Section 4.8 hereof, less the total amount of prior partial payments.

(d) Unit Price Renegotiation: In the event that unit prices are used, Contractor will be paid at the unit price bid for the quantity actually used. If the actual quantity exceeds 125% of the amount specified in the Contract Documents, the Owner reserves the right to renegotiate the unit price bid.

4.2 Receipts and Releases of Liens

With each Requisition, Contractor shall furnish the following documents:

- (a) Contractor's Receipt and Waiver of Lien (See Appendix H)
- (b) Subcontractor's Receipt and Waiver of Lien (See Appendix J)
- (c) Any other documentation required elsewhere in the Specifications

The Owner may also require Contractor to attach to each Requisition the consent of the surety issuing the Payment and Performance Bonds to such payment.

In addition to the documents required to be furnished by the immediately preceding paragraph, with the Final Requisition, Contractor shall furnish:

- (a) Affidavit and Final Waiver of Claims and Liens and Release Rights (See Appendix G and I); and
- (b) Releases from all subcontractors and Materialmen who provided labor or materials for the Project.

Should any such subcontractor or Materialmen fail or refuse to furnish such release, Contractor will be required to furnish a bond satisfactory to the Owner to indemnify it against any such lien, claim or demand. If any such lien, claim or demand is asserted or remains unsatisfied after Final Payment is made to the Contractor, Contractor shall refund to the Owner all monies that the latter may be compelled to pay in discharging such lien, claim or demand including all costs, expenses and attorney's fees which the Owner may incur in connection therewith.

4.3 Release and Consent of Surety

Notwithstanding any other provision of the Agreement to the contrary, Final Payment shall not become due pursuant to this Agreement until Contractor submits to the Owner a General Release and a consent of Surety to said payment both in form and content acceptable to the Owner.

4.4 Time of Payment

Requisitions shall be submitted by Contractor to the Owner by the thirtieth day of each month for Work completed up to the last day of the previous month, and if such Requisition is properly supported, payment shall be made within thirty (30) days after approval of the Requisition by the Owner. All requisitions shall be subject to the approval of the Owner's Representative and ESDC. Contractor shall submit to and review with the Owner a draft copy of each Requisition on or around the twenty fifth of the month. Contractor shall only be entitled to payment in the amount approved by the Owner with respect to such Requisition. Each Requisition must be signed by the Owner before payment is due to Contractor. The value of any Work included in a Requisition for partial

payment which is found unacceptable by the Owner shall be deducted from that or any subsequent Requisition.

4.5 Retainage

The Owner shall retain five (5%) percent of the portion of the Contract Price covered by each Requisition submitted by Contractor (the "Retainage"). The Owner has the right to increase the amount of retainage held if any breach of the Contract is deemed by the Owner to remain uncorrected after notice of such breach has been provided to Contractor.

4.6 Reduction of Retainage

- (a) Upon Substantial Completion, the Retainage shall be reduced to two and one-half (2.5%) percent of the Contract Price or two (2) times the value, as approved by the Owner, of any remaining items of Work to be completed or corrected on the Final Punch-List, as defined in Section 7.6, whichever is greater; and
- (b) An amount necessary to satisfy any and all claims, liens or judgments against Contractor.

The Final Punch-List may be expanded to include additional items of Work to be corrected or completed until final acceptance of the Work by the Owner. Additional sums may be withheld in the manner prescribed above to cover the value of these items pursuant to this Section.

4.7 Final Payment

- (a) The final balance due Contractor under this Agreement shall be payable to Contractor by the Owner, as final payment hereunder, within thirty (30) days after all of the following have taken place:
 - 1. Final inspection and acceptance by the Owner as evidenced by the Certificate of Completion being delivered to Contractor.
 - Contractor's Final Requisition has been submitted by Contractor and approved by the Owner and Architect.
 - 3. The affidavit attached as Exhibit M hereof has been submitted by Contractor, and any other documents or actions expressly specified in the Contract Documents as preconditions to Final Payment have been submitted or completed.
 - 4. Any inspection or approvals with respect to any of the Work that the Owner deems appropriate or which is required by governmental authorities or by the applicable Board of Fire Underwriters, have been performed or obtained.
- (b) Contractor's acceptance of Final Payment will constitute full and final settlement of all obligations of the Owner to Contractor with respect to payments required by this Agreement.

4.8 Withholding of Payments

- (a) The Owner may withhold from Contractor any part of any payment as may, in the judgment of the Owner, be necessary:
 - 1. To assure payment of just claims of any persons supplying labor or materials for the Work;
 - 2. To protect the Owner from loss due to defective Work and unsatisfactory work not remedied;
 - 3. To protect the Owner and its representatives from loss due to death or injury to persons or damage to the Work or property of other contractors, subcontractors or others caused by the act or neglect of Contractor or any subcontractors;

- 4. In the event that there is reasonable evidence that the Work will not be completed for the unpaid balance of the Contract Price:
- 5. In the event that there is reasonable evidence that the Work will not be completed within the Project Schedule; or
- 6. In the event that Contractor persistently fails to perform the Work in accordance with the Contract Documents.

In any of such events, the Owner shall have the right to apply any such amounts so withheld in such manner as the Owner may deem proper to satisfy such claims, to secure such protection, complete the Work or to compensate the Owner for any loss suffered by reason on Contractor's delay. Such application shall be deemed payment for the account of Contractor. In the event that the Owner gives Contractor notice that it intends to make such application, Contractor shall be stopped from disputing liability or the amount of liability unless, within three days after receipt of such notice, it indicates to the Owner in writing that it is not liable or that the amount of its liability is different from that set forth in the notice.

(b) The provision of this Section 4.8 is solely for the benefit of the Owner, and any action or non-action by the Owner shall not give rise to any liability on the part of the Owner.

4.9 Right to Audit

Contractor shall maintain and shall keep for a period of at least six years after the date of final acceptance of the Work all records and other data relating to the Work.

The Owner or its designees shall have the right to inspect and audit all records, subcontracts, purchase orders and other data of Contractor relating to the Work at any time and from time to time until the end of such three (3) year period. Contractor shall promptly respond to any inquires of the Owner or any representative of the Owner arising out of any such inspection or audit. If an audit reveals an overpayment by the Owner exceeding two (2%) percent, Contractor shall be responsible to pay the costs associated with the audit incurred by the Owner. Any overpayment to Contractor shall immediately be returned to the Owner.

SECTION 5

CONTRACTOR

5.1 Superintendence by Contractor

- (a) Contractor shall employ a full-time competent construction superintendent who shall be approved by the Owner and shall be in charge of the Work. The construction superintendent shall be devoted full time to the Work, shall be present at the Site during the time the Work is required to be performed and shall have full authority to accept instructions, make decisions and act for Contractor at all times. Contractor shall submit to the Owner for approval the resume of his proposed superintendent.
- (b) If at any time the superintendent is not satisfactory to the Owner, Contractor shall, if requested by the Owner, replace the superintendent with another satisfactory to the Owner within five (5) business days of such request.
- (c) Contractor shall not remove or replace the superintendent or person-in-charge of the Work without the consent of the Owner unless he or she is discharged by Contractor or resigns from the employ of Contractor.

5.2 Representations of Contractor

Contractor represents and warrants that:

- (a) Contractor is financially solvent and is experienced in, and competent to perform the Work;
- (b) Contractor is familiar with all Federal, State, City or other laws, ordinances, orders, rules and regulations, which may in any way affect the Work;
- (c) Any temporary and permanent Work required by this Agreement can be satisfactorily constructed and such construction will not injure any person or damage any property extraneous to the Work; and
- (d) Contractor has carefully examined the Contract Documents and the site and, from Contractor's own investigations, is satisfied as to the nature and location of the Work, the character, quality and quantity of surface and subsurface materials likely to be encountered, the character of equipment and other facilities needed for the performance of the Work, the general and local conditions, and all other conditions or items which may affect the Work. Based on the foregoing, Contractor represents that the Contract Documents are adequate for the complete performance of the Work.

5.3 Verifying Dimensions and Site Conditions

- (a) Before proceeding with the Work, Contractor will accurately check all previous and surrounding work and determine the correctness of same.
- (b) Contractor shall take, determine, investigate and verify all field measurements, dimensions, field construction criteria and site conditions for the performance of the Work and shall check and coordinate the information contained in the Contract Documents.
- (c) Contractor shall be responsible for determining the exact location of and to verify the spatial relationships of all Work. If any conflicts are found in the Contract Documents, or if Contractor has any questions concerning the foregoing, it shall immediately notify the Owner and shall thereafter perform the Work in accordance with directions from the Owner.
- (d) Contractor shall be responsible for locating all utilities on or below the site.
- (e) To ascertain the relationship of the Work, Contractor will perform to all Work required by the Contract Documents. The Contractor shall examine the Contract Documents for Work of its contract and any related work of other contracts.

5.4 Site or Subsurface Conditions Found Different

- (a) The Contractor acknowledges that the Contract amount includes such provisions which the Contractor deems proper for all subsurface or site conditions the Contractor could reasonably_anticipate encountering as indicated in the Contract Documents, or borings reports, rock cores, foundation investigation reports, archeological reports, topographical maps or other information available to the Contractor or from the Contractor's inspection and examination of the Site prior to submission of bids.
- (b) The Owner assumes no responsibility for the correctness of any boring or other subsurface information and makes no representation whatsoever regarding subsurface conditions and test borings, reports, rock cores, foundation or archeological investigation and topographical maps which may be made available to the contractor.
- (c) Should the Contractor encounter subsurface site conditions at the Site materially differing from those shown on or described in or indicated in the Contract Documents, the Contractor shall immediately give notice to the Owner and the Owner's representative of such conditions and shall not disturb said conditions until authorized to do so by the Owner or the Owner's Representative.

5.5 Copies of Contract Documents for Contractor

The Owner shall furnish to Contractor, without charge, four (4) sets of the Contract Documents. Any sets in excess of the number mentioned above may be furnished to Contractor for the cost of reproduction and mailing.

5.6 Financial Information

Contractor agrees to furnish at the Owner's request, current quarterly and, if available, audited annual financial statements and from time to time, such additional information as the Owner shall deem necessary or desirable to satisfy itself of Contractor's continuing ability to complete the Work.

SECTION 6

CONTRACT ADMINISTRATION

6.1 <u>Architect's, and the Owner's Representatives Responsibilities and Functions</u>

- (a) Contractor acknowledges that the Owner's Representative, on behalf of the Owner, has immediate responsibility for general administration of the Contract, shall observe the Work for conformity with requirements of the Contract, shall review Contractor's performance of or compliance with other requirements on the Contract and shall issue directives to Contractor in regard to such matters. The Owner's Representative will not be responsible for Contractor's or subcontractor's construction means, methods, techniques, sequences or procedures, or for safety precautions and programs in connection with the Work, and the Owner's Representative will not be responsible for Contractor's failure to carry out the Work in accordance with the Contract Documents or its failure to fulfill any requirements of the Contract.
- (b) Contractor acknowledges that Architect, on behalf of the Owner, shall review all Shop Drawings and samples and other submittals and shall observe the general quality of construction for reasonable conformance with the design scheme of Architect and adherence to the Contract Documents, and may review Contractor's performance for compliance with the requirements of this Agreement.
- (c) Architect's and the Owner's Representative's duties and services shall not in no way supersede or dilute Contractor's obligation to perform and complete the Work in full conformity with the Contract Documents.

SECTION 7

INSPECTION AND ACCEPTANCE

7.1 Access to the Work

The Owner, the Owner's Representative, Architect, ESDC or any of their authorized agents shall at all times have access to and the right to observe the Work and all facilities where the Work or any part thereof is being fabricated or stored. Contractor shall provide proper facilities for such access and observation, including adequate workspace on site for any designated Owner Representative.

7.2 Uncovering of Work

(a) If any Work shall be covered or concealed contrary to the request of the Owner, such Work shall, if required by the Owner, be uncovered for examination, inspection or testing. Any examination, testing or inspection shall not relieve Contractor of the responsibility to maintain quality control over the Work. The cost of all such testing including examination, inspection and additional professional services required, and any other expenses incurred by the Owner as a result of such examination, inspection or testing shall be borne by Contractor. (b) In the event that a typical detail fails inspection or testing, the Owner may require inspection or testing of any or all other such typical details at Contractor's cost and expense.

7.3 <u>Correction of Work</u>

Any Work not approved by the Owner, shall immediately be reconstructed, made good, replaced or corrected by Contractor including all Work of other Contractors destroyed or damaged by such removal or replacement. Rejected material shall be removed immediately from the site. Acceptance of material and workmanship by the Owner shall not relieve Contractor from Contractor's obligation to replace all Work which is not in full compliance with the Contract Documents.

7.4 Certificate of Substantial Work Completion

"Substantial Completion" shall occur when all of the following conditions have been satisfied:

- (a) All of the Work has been completed in accordance with the Contract Documents and to the Owner's satisfaction except as noted on the Final Punch List, as defined in Section 7.6 (b), such that the Owner can occupy the site for the intended use and purpose or otherwise take it over for beneficial use;
- (b) Contractor and the Owner have agreed in writing upon a comprehensive list of all incomplete, defective or incorrect Work to be completed by Contractor (the "Final Punch List") (or, if they are unable to agree, the Owner shall have prepared and issued the Final Punch List to Contractor).
- (c) Contractor has delivered to the Owner a written statement of the Surety (in form and substance satisfactory to the Owner) to the effect that the Owner's payment of unpaid balance of the Contract Price shall not modify or discharge the obligations of the Surety under the Bonds; and
- (d) Contractor has submitted written certification that all of the foregoing conditions have been satisfied; and the Owner has approved Contractor's Certification.

7.5 Certificate of Final Completion

Upon receipt of written notice from Contractor stating its belief that the Work is fully performed in conformity with the Contract Documents, and confirming that Contractor has completed any items of Work previously noted to it by the Owner as not being acceptably completed in the Final Punch List or any subsequent punch list, which may amend the Final Punch List, the Owner and Architect shall perform an inspection for purposes of determining whether the Work is finally completed. The Owner and Architect shall commence such inspection within ten (10) days of receipt of such notice and shall pursue and complete it with all due diligence. When Architect and the Owner find, upon inspection, that to the best of their knowledge and belief, the Work is so performed, they shall prepare and sign a Certificate of Final Completion and furnish such Certificate to Contractor. Such Certificate shall specify the date of completion of the Work for purpose of this Agreement and shall constitute final acceptance of the Work by the Owner. The delivery of a Certificate of Final Completion shall not terminate or alter Contractor's guarantees and other obligations under this Agreement to complete the Work in conformity with the Contract Documents and to fulfill all terms and conditions of this Agreement.

7.6 Acceptance

No inspection shall relieve Contractor of the obligation to perform the Work in strict accordance with the Contract Documents. No payment, either partial or full, by the Owner to Contractor shall be deemed an acceptance of the Work or waiver by the Owner of any terms or conditions of this Agreement.

SECTION 8

CHANGES IN THE WORK

8.1 <u>Change Orders</u>

Without invalidating this Agreement, the Owner may order extra work or make changes by altering, adding to, or deducting from the Work, the Contract Price being adjusted accordingly. No claims for extra work shall be allowed unless said extra work is ordered in writing by the Owner or the Owner's Representative. No changes in the Work shall be made unless ordered in writing by the Owner or the Owner's Representative and formalized as a change order (a "Change Order"). In the event that a change directed by the Owner requires Contractor to obtain any special or additional license or permit, the Contractor shall procure the same promptly so as not to impede the progress of the Work. Contractor bears all risk associated with any delay related to obtaining licenses or permits necessary to perform work required by a Change Order. Contractor acknowledges that the Owner has the absolute right to change the sequence of the Work set forth in the Project Schedule for its convenience. If the Owner directs a change to the sequence of the Work for any reason other than due to a default or failure by the Contractor to timely and properly perform the Work, the Contractor shall only be entitled to additional time to complete the Work pursuant to a Change Order, if necessary.

8.2 Changes in Contract Price and Time

- (a) The amount by which the Contract Price is to be increased or decreased by any change order shall be determined by the Owner by one or more of the following methods;
 - 1. By accepting an amount agreed upon by both parties;
 - 2. By applying the applicable unit price or prices previously bid and approved. This method shall be used if the Contract contains applicable unit prices;
 - 3. By adding to the Contract Price only the amount of the premium portion of overtime pay resulting from an acceleration of the Work, if required by the Owner and not because of a failure by Contractor to maintain the Project Schedule.
 - 4. By receiving from Contractor a detailed breakdown satisfactory to the Owner, including actual time slips and invoices; itemizing the direct cost of labor and material to perform the changed Work and adding thereto fifteen percent (15%) to cover the profit and all indirect and overhead costs, except that where the changed Work is performed by a subcontractor, the direct cost of labor and material to perform the changed Work plus Fifteen percent (15%) for profit and all indirect and overhead costs to subcontractor and an additional sum for all indirect and overhead costs of Contractor equal to five percent (5%). Such percentage shall be applied to direct costs prior to any mark-ups for subcontractor(s). Where the changed Work involves an increase and a reduction in any contract Work, the above percentage override shall be applied only on the amount, if any, that the cost of the increase exceeds the cost of the reduction. The allowance for overhead and profit shall include supervision (including General Foreman, Foreman and Project Management), field office and general expenses, overhead, and profit.
- (b) The compensation specified in a Change Order shall constitute a release and full payment for the extra work covered thereby and for any delay and disruption costs or expense occasioned by reason of said charge in the Work.
- (c) No time extension shall be granted Contractor by reason of the issuance of any Change Order unless expressly stated therein.

8.3 Change Order Format

- (a) All Change Orders shall be processed, executed and approved on the Owner's Change Order form, (Exhibit C) of this Agreement. No alteration to this form shall be acceptable to the Owner and no payment for extra work shall be due Contractor unless it executes a Change Order on said form.
- (b) Five (5) copies of proposed Change Orders shall be submitted to the Owner. All Change Orders shall become part of the Contract only when they are issued and signed by the Owner.

8.4 <u>Changed Conditions</u>

- (a) Contractor shall within three (3) days of discovery and before such conditions are disturbed, notify the Owner and its Representative in writing of: (1) subsurface or latent physical conditions differing materially from those indicated in the Contract Documents which could not have been anticipated by Contractor, or (2) unknown physical conditions of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in work provided for in this Agreement. The Owner or the Owner's Representative shall promptly investigate the conditions, and if it finds that such conditions do materially so differ and cause an increase or decrease in Contractor's cost of, or the time required for performance of any part of the Work under this Agreement, adjustments to Contractor's compensation shall be made in the manner provided for payment with respect to any Change Order and a time extension, if warranted, will be granted.
- (b) No claim of Contractor under this clause shall be allowed and shall be deemed waived unless Contractor has given written notice required in (a) above.

SECTION 9

SUBCONTRACTS AND PURCHASE ORDERS

9.1 Selection of Subcontractor and Materialmen and Approval of Subcontracts and Purchase Orders

- (a) The list of proposed subcontractors submitted by Contractor and approved by the Owner (See Exhibit O) identifies the subcontractors with whom Contractor agrees to contract with respect to the Work and is incorporated by reference herein. Any subcontractor engaged by Contractor shall be skilled and, if necessary, licensed to perform such work that it is retained to perform. Contractor shall incorporate all terms of this Agreement which may be applicable to the subcontractor's work in the subcontract or purchase order for such work.
- (b) Any subcontract or purchase order for labor or materials from a person or firm not listed on the above referenced list of proposed subcontractors shall be subject to approval by the Owner. The Owner may approve or disapprove any such subcontract or purchase order by reason of lack of responsibility of the subcontractor or Materialmen or failure to conform to the Owner's non-discrimination, affirmative action, training or minority participation policies and programs. Contractor shall submit such information as the Owner may request in a form acceptable to the Owner concerning each such proposed subcontract or purchase order.

9.2 Access by the Owner and Others

Contractor shall include a provision in all subcontracts and purchase orders, except as may otherwise be specified by the Owner with respect to purchase orders for minor purchases (valued at \$500 or less), that, in order to permit verification of Contractor's costs, the Owner shall have the right to have its representatives inspect and audit the books of account and records of the subcontractors and Materialmen, including the right to make excerpts from such books and records. All payments by Contractor to a subcontractor or Materialmen shall be by check specifically indicating that payment is attributable to this Agreement. Contractor shall include a provision in all subcontracts and purchase orders that will enable representatives of the Owner or the State of New

York to obtain access during working hours to the appropriate books of account and records of the subcontractors and Materialmen relating to the Work to determine if there is a compliance with the requirements of law or this Agreement.

9.3 Retainage

Contractor may provide for a retainage under any of is subcontracts or purchase orders provided that where a subcontract or purchase order provides for a retainage, the retainage shall be no greater in percentage than that provided for under this Agreement hereof with respect to Contractor itself, unless otherwise approved in writing by the Owner. Contractor shall submit with each Requisition a statement setting forth the amounts of all retainage withheld, if any, under its subcontracts and purchase orders.

9.4 Miscellaneous

- (a) Contractor shall be fully responsible for the work, supervision, acts and omission of subcontractors and materialmen, and of any person either directly or indirectly employed by subcontractors and materialmen.
- (b) Contractor's use of subcontractors and Materialmen shall not diminish Contractor's obligation to complete the Work in accordance with the Contract Documents. Contractor shall supervise control and coordinate the Work of subcontractors and Materialmen.
- (c) Nothing contained in this Agreement shall create any contractual relationship between subcontractors or materialmen and the Owner, nor shall it obligate the Owner to pay or to see to the payment of any sums to any subcontractors or materialmen.
- (d) Contractor shall include a provision in all subcontracts and purchase orders requiring the subcontractor, if requested by the Owner until the subcontractor finishes its portion of the Work, to deliver to Contractor unaudited financial statements of the subcontractor similar to the obligation of Contractor hereunder. Promptly upon receipt thereof, Contractor shall deliver copies thereof to the Owner.

SECTION 10

ASSIGNMENT

10.1 No Assignment of Duties

Contractor shall not assign this Agreement or the performance of any obligations of Contractor under this Agreement, nor subcontract the Work or any part thereof except in compliance with the terms hereof or with the expressed written consent of the Owner, and each and every such assignment and subcontracting without such compliance or consent shall be void and Contractor shall not be entitled to any compensation for labor or materials provided by its subcontractors in violation of this provision.

10.2 Assignment of Monies

Contractor shall not assign any monies payable hereunder nor execute and deliver any order on payment unless Contractor and the assignee shall have complied with the following terms and conditions: (a) assignee shall be a commercial bank of finance company regularly engaged in the business of providing financing to construction contractors and shall be providing such financing to contractor; and (b) assignee shall, simultaneously with the assignment, execute and deliver to the Owner an undertaking, in favor of the Owner, in form and substance satisfactory to the Owner, providing that (i) assignee will cause Contractor to apply for trust purposes, as defined in Article 3-A of the Lien Law of the State of New York (the "Lien Law"), all funds advanced by assignee to Contractor (ii) assignee will file a copy of the assignment, containing the covenant required by the Lien Law, with the County Clerk of Erie County, (c) assignee agrees that the Owner and Contractor may modify any of the terms of this Agreement, including any of the terms

of payment without the consent of assignee; (d) assignee agrees that after the effective date of the assignment, the Owner may make payment directly to any subcontractor, material or equipment supplier without any liability to assignee; (e) assignee will require and cause Contractor to keep his books and records in the form and manner described in Section 75 of the Lien Law; and (f) assignee will indemnify and hold the Owner harmless from and against all loss, claim or expense incurred as a result of any failure or performance in accordance with the terms of such undertaking.

10.3 Assignment to ESDC

This Agreement or any rights of Owner under this Agreement, including any guarantees or warranties or workmanship or material, may at any time be assigned by the Owner to Empire State Development Corporation (ESDC), any subsidiary of ESDC, any successor of ESDC or subsidiary of such successor, or to the State of New York, or any political subdivision or agency of the State.

SECTION 11

MECHANIC'S LIENS AND CLAIMS

If any mechanic's lien or other claim should be filed for or on account of the Work, Contractor shall, within thirty (30) days after notification thereof, discharge such lien or claim or otherwise make provision satisfactory to the Owner for its satisfaction. If Contractor fails to comply with this provision, the Owner may take any steps it deems appropriate to discharge such lien or other claim and Contractor shall be obligated to indemnify any costs and expenses associated with the discharge or satisfaction of the lien or other claim incurred by the Owner, including reasonable attorney's fees.

ARTICLE 12

DISPUTES

12.1 Claims for Extra Work

- (a) If Contractor is of the opinion that (1) any work which it has been ordered to perform is extra work and not Work as set forth in the Contract Documents, (2) any determination, order or directive of the Owner is contrary to the terms of the Contract Documents and will require the performance of extra work or will cause additional expense to Contractor, or (3) any action or omission of the Owner or Architect is contrary to the terms and provisions of the Contract Documents and will require the performance of extra work or will cause additional expense to Contractor, Contractor shall:
 - not suspend Work, but promptly comply with such determination, order or directive and proceed diligently with the Performance of the Work in accordance with the Owner's instructions;
 - 2. notify the Owner in writing within 72 hours of such determination, order or directive of its reasons for its opinion and request a final determination thereon by the Owner.

If within three (3) business days the Owner determines that the Work is not extra work, the Contractor, in order to reserve its right to claim compensation resulting from the performance of such work or the compliance with such determination, order or directive, must notify the Owner in writing within three (3) business days after receiving notice of the Owner's determination that it is performing such work or complying with such determination, order or directive under protest. In addition to the foregoing, Contractor must submit to the Owner within thirty (30) days after it has performed such work or complied with such determination, order or directive, a detailed statement of the extra expense incurred from the performance of such work or the compliance with such determination, order or directive.

- (b) No claims for extra work shall be allowed unless the same was done pursuant to written order approved by the Owner. If Contractor fails to comply with any provisions of the Article:
 - it shall constitute a conclusive and binding determination that such action, omission, determination order or directive does not involve extra work, has not caused extra expense to Contractor, and is not contrary to the terms and provision of the Contract Documents; and
 - 2. it shall be deemed to have waived any claim for compensation resulting from the performance of such work or the compliance with such determination, order or directive.
- (c) The value of claims for extra work, if allowed shall be determined by the methods described in the Agreement for Change Orders.

ARTICLE 13

TERMINATION

13.1 Termination for Cause

In the event that any material provision of this Contract is breached by Contractor or by any subcontractor, the Owner may serve a three (3) calendar day written notice upon Contractor, and upon Contractor's surety, if any, of the Owner's intention to terminate the Contract. Said notice shall contain the reasons for said intention to terminate the Contract upon a date specified by the Owner. If said breach shall not be cured by Contractor within three (3) calendar days or arrangements satisfactory to the Owner shall not be made, the Contract shall terminate upon the date so specified by the Owner. In the event of any said termination, the Owner may take over the Work and prosecute same to completion for the account and at the expense of Contractor, and Contractor and Contractor's surety shall be liable to the Owner for all costs occasioned the Owner. In the event of said termination the Owner may take possession of and may utilize such materials or equipment as may be on the site and necessary or useful in completing the Work irrespective of whether such materials or equipment were intended to be incorporated in the Project.

13.2 Termination for Convenience of the Owner

The Owner at any time may terminate the Contract in whole or in part for any reason and without cause. Any said termination shall be effected by delivering to Contractor a notice of termination specifying the extent to which performance of Work under the Contract is terminated and the date upon which said termination becomes effective. Upon receipt of the notice of termination, Contractor shall act promptly to minimize the expenses resulting from said termination. The Owner shall pay Contractor the costs actually incurred by Contractor in the performance of the Work up to the effective date of said termination, but in no event shall Contractor be entitled to compensation in excess of the total compensation earned through the date of termination. Contractor shall not be entitled to any compensation for lost profits, which may be attributable to such termination. In the event of said termination, the Owner may take over the Work and prosecute same to completion and may take possession of and may utilize such materials and equipment as may be on the Site and necessary or useful in completing the Work.

13.3 The Owner's Right to do Work

The Owner may, after notice to Contractor, without terminating the Contract and without prejudice to any other right or remedy the Owner may have, perform, or have performed by others, all of the Work or any part thereof and may deduct the cost thereof from any monies due or to become due Contractor.

13.4 Suspension of Work

The Owner may at any time and for any reason direct Contractor to suspend, stop or interrupt the Work or any part thereof for any period of time. Such direction shall be in writing and shall specify the period during which the Work is to be stopped. Contractor shall resume the Work upon the date specified in such direction or upon such other date as the Owner may thereafter specify in writing. The period during which the Work shall have been suspended, stopped or interrupted may, if warranted, be added to the time fixed for performance of the Work. A suspension for any consecutive period of 120 days or less during any 365-day period of the Work pursuant to this provision shall not give rise to any claim against the Owner by Contractor for additional compensation; otherwise, Contractor may be entitled to an equitable adjustment of the Contract Price in the Owner's sole discretion.

ARTICLE 14

INDEMNITY AND PROTECTION OF RIGHTS, PERSONS AND PROPERTY

14.1 Accident Prevention

Contractor shall at all times take every precaution against injuries to persons or damage to property and for the safety of persons engaged in the performance of the Work.

14.2 <u>Safety Program</u>

Contractor shall be responsible for the initiation, maintenance and supervision of safety precautions and programs in connection with the Work. Contractor shall submit a safety program to be approved by the Owner or the Owner's Representative and designate a Safety Officer to carry out the approved program.

14.3 Protection of Work and Property

Contractor shall at all times guard the Owner's property from damage or loss in connection with the Work. Contractor shall at all times guard and protect the site, the Work and adjacent property. Contractor shall replace or make good any such loss or injury unless such loss or injury is caused directly by the Owner.

14.4 Delay or Failure

Contractor and its sureties shall be responsible for and pay to the Owner all loss, damage and additional cost incurred at the Project by reason or on account of (i) the unexcused delays of Contractor or (ii) Contractor's failure to fully and completely carry out the terms of this Agreement.

14.5 Adjoining Property

Contractor shall protect all adjoining property and shall repair or replace any such property damaged or destroyed during the progress of the Work by Contractor or any of its subcontractors at Contractor's sole cost and expense.

14.6 Risks Assumed by Contractor

(a) Contractor solely assumes the following distinct and several risks whether such risks arise from acts or omissions (whether negligent or not, and whether supervisory or otherwise) of the Owner, of Architect, of Contractor, of any subcontractor, of third persons or from any other cause, including unforeseen obstacles and difficulties which may be encountered in the prosecution of the Work, whether such risks are within or beyond the control of Contractor and whether such risks involve any legal duty, primary or otherwise, imposed upon the Owner:

- 1. The risk of loss or damage, direct or indirect, or whatever nature, to the Work or to any materials furnished, used, installed or received by the Owner, Contractor or any subcontractor, materialmen or workmen performing services or furnishing materials for the Work, whether or not such work or materials are stored at the site. Contractor shall bear such risk of loss or damage until final acceptance of the Work by the Owner or until completion or removal of such materials from the site and the vicinity thereof, whichever event occurs last. A portion of the risk of such loss or damage may be insured against under the terms of a "builder's risk" insurance policy maintained by the Owner. Notwithstanding the status of any actual or potential recovery or claim under the said "builder's risk" insurance policy, in the event of any loss or damage, Contractor immediately shall repair, replace or make good any such loss or damage.
- The risk of claims, just or unjust, by third persons against Contractor, the Owner, the Owner's Representative, and Architect on account of wrongful death, bodily injuries and property damage, economic loss, direct or consequential, and loss or damage of any kind whatsoever arising or alleged to arise out of or as a result of or in connection with the performance by Contractor of the Work or out of or in connection with Contractor's operations or presence at or in the vicinity of the site. Contractor shall bear such risk for all such deaths, injuries, damages or losses sustained or alleged to have been sustained, including indemnity loss, also.
- A) Contractor assumes the entire responsibility and liability for any and all damage or 3. injury of any kind or nature whatsoever (including death resulting therefrom) to all persons, whether employees of Contractor or otherwise, and to all property caused by, resulting from, arising out of or occurring in connection with the execution of the Work. Contractor shall hold the New York State Urban Development Corporation d/b/a/ Empire State Development corporation (ESDC), the Owner (ECHDC), the Owner's Representative (Turner Construction), Construction Manager, Architect (TWLA), Engineer, the City of Buffalo, County of Erie, Buffalo Sewer Authority, and their consultants, successors, assigns, servants, agents and employees (the "Indemnities") harmless from and shall indemnify them against and for any and all liability, loss, cost, damage or expense, including attorneys' fees, by reason of claims of its employees or employees of its subcontractors for injuries or death, by reason of claims of any other person or persons, including the Indemnities, for injuries to person or property or for death occasioned in whole or in part by any act or omission of Contractor, its subcontractors and their servants, agents or employees. If, however, this indemnification is limited by applicable law, then the said indemnification hereby shall be similarly limited to conform to such law, it being the intention that this indemnification shall be as broad as permitted by applicable law. The Owner may retain any monies due or to become due hereunder sufficient to indemnify the New York State Urban Development Corporation d/b/a/ Empire State Development corporation (ESDC), the Owner (ECHDC), the Owner's Representative (Turner Construction), Construction Manager, Architect (TWLA), Engineer, the City of Buffalo, County of Erie, Buffalo Sewer Authority, State of New York, and their servants, agents and employees against such injuries, claims, suits, actions, costs or damages should any such claim arise. Contractor shall, at the sole option of the Owner and upon written demand of the Owner, assume the defense in behalf of the Indemnities of any action or proceeding commenced against them whether or not Contractor is named as a party therein as part of Contractor's aforementioned obligation to indemnify and hold them harmless.
- (b) Contractor shall not, without obtaining express advance permission of the Owner, raise any defense involving in any way jurisdiction of the tribunal over Contractor, the Owner or any Additional Insured, the governmental nature of the Owner or any Additional Insured or the provision of any statutes respecting suits against the Owner or any Additional Insured.
- (c) Contractor's obligations under this Article shall not be deemed waived, limited or discharged by the procurement of any insurance by the Owner or the Contractor.

(d) Neither Final Acceptance of the Work nor making any payments shall release Contractor from Contractor's obligations under this Article. The enumeration elsewhere in this Agreement of particular risks assumed by Contractor or of particular claims for which Contractor is responsible shall not be deemed to limit the effect of the provisions of this Article or to imply that Contractor assumes, or is responsible for, only risks or claims of the type enumerated; and neither the enumeration in this Article nor the enumeration elsewhere in this Agreement of particular risks assumed by Contractor or particular claims for which Contractor is responsible shall be deemed to limit the risks which Contractor would assume or the claims for which Contractor would be responsible in the absence of such enumerations. All of the foregoing obligations of Contractor in this Article shall survive the termination of this Agreement for any reason.

ARTICLE 15

USE OR OCCUPANCY PRIOR TO ACCEPTANCE BY THE OWNER

15.1 Occupancy Prior to Final Acceptance

- (a) If, before Final Acceptance of the Work, the Owner desires occupancy of the Project or any part thereof which is completed or partly completed, or to place or install therein equipment and furnishings, the Owner shall have the right to do so, and Contractor shall in no way interfere with or object to such occupancy by the Owner.
- (b) Such occupancy: (1) shall not constitute acceptance of space, systems, materials or elements of the Work, nor shall such occupancy effect the start of any guaranty period; and (2) shall not affect the obligations of Contractor under the Contract Documents.
- (c) Contractor shall continue the performance of the Work in manner which shall not unreasonably interfere with such use, occupancy and operation by the Owner.

ARTICLE 16

WARRANTIES AND GUARANTEES

16.1 Guarantees

Contractor shall in all respects guarantee the Work to the Owner and be responsible for all material, equipment and workmanship of the Work. Contractor shall forthwith repair, replace or remedy in a manner approved by the Owner or the Owner's Representative, any said materials, equipment, workmanship, or other part of the Work found by the Owner or the Owner's Representative to be defective or otherwise faulty and not acceptable to the Owner or the Owner's Representative which defect or fault appears during the period of one (1) year from the date of Final Completion as evidenced by the Certificate of Final Completion.

16.2 Specific Guarantees

Specific guarantees shall be as set forth in the Specifications and shall be submitted as indicated.

16.3 Guarantee Inspection

The Owner along with Architect and his consultants and the Owner's Representative will perform a Guarantee Inspection eleven (11) months after issuance of Certificate of Final Completion. Contractor will be forwarded a copy of the guarantee inspection report identifying any noted deficiencies in the Work which must be corrected by the Contractor. Contractor shall proceed with

diligence to correct all such work identified on the inspection report within ten (10) days of receipt of the report or as soon thereafter as is reasonably possible.

16.4 Expenses of Correction of Work

- (a) In the event that the Owner is required to incur any expense relating to the correction of the Work even if such expense relates to work on the Project not performed by Contractor, all such expense shall be the sole obligation of Contractor and shall be reimbursed to the Owner upon demand, Contractor hereby acknowledging that the Owner may be required to incur substantial expense if correction involves the uncovering, removal or replacement of paving concrete, wiring and piping installed at the Site. If Contractor shall fail to reimburse the Owner for any such expense which may become payable as provided in this paragraph, the Owner shall be entitled to deduct such expense from any payments required to be made by the Owner to Contractor pursuant to this Agreement. Contractor, upon demand, shall pay for all damage to all other work resulting from such defects and all expenses necessary to remove, replace, and repair such other work which may be damaged in removing, replacing or repairing such defects.
- (b) If the Owner has requested Contractor to correct any Work and Contractor shall not have completed any correction of the Work as shall be required pursuant to Article 18 within ten (10) working days after receipt of written notice from the Owner specifying the defect or damage required to be removed, repaired and replaced within such ten (10) day period or shall not thereafter with reasonable diligence and in good faith proceed to do such work, the Owner may employ such other person, firm or corporation as it may choose to perform such removal, replacement and repair, and Contractor shall, upon demand, pay to the Owner all amounts which the Owner expends for such work.
- (c) The benefits of this Article 18 shall inure to the benefit of the Owner and its respective successors and assigns. In addition, any bond or guarantee which may be required of Contractor or any subcontractor under the Contract Documents shall inure to the benefit of the Owner and its respective successors and assigns.
- (d) The rights and remedies afforded the Owner under this Section are in addition to and not in lieu of and do not in any way affect, limit, change, alter, modify, vary or prejudice any right, remedy or recourse which the Owner may have under other provisions of this Agreement or pursuant to statute, common law, or otherwise.

ARTICLE 17

PATENTS AND ROYALTIES

17.1 Patents & Royalties

- (a) In the prosecution of the Work, Contractor will not use or furnish any patented appliance, article, device or method of construction unless it has authorization for such use. Contractor shall pay all royalty and license fees.
- (b) Contractor shall indemnify and hold harmless the Owner from claims, demands or liabilities of any kind or nature, including costs and expenses, for or on account of any patented plan, design, invention, article, arrangement, appliance, material, or preparation manufactured, used or followed in the performance of or incidental to the Work hereunder, and shall defend any and all actions arising out of the same. In the event of any injunction or legal action by reason thereof, which shall operate to stop or delay the Work, the Owner shall have the right to substitute such other articles of like kind as will enable it to complete the Project, and all costs and expenses occasioned thereby shall be borne by Contractor.

- (c) Contractor hereby and presently grants to the Owner an irrevocable and nonexclusive license to utilize all of Contractor's rights in and to:
 - 1. all United States patents and patents registered in any other foreign country;
 - 2. all proprietary knowledge, data and trade secrets;

All engineering data and information in connection with all work performed by Contractor or other contractors hired by the Owner to complete the Work after termination of this Agreement. Each purchase order and subcontract shall contain a similar clause with respect to the rights of the Owner with respect to the subcontractors' rights in and to the foregoing, in form and substance acceptable to the Owner, granting the Owner the aforesaid license. The Owner shall not be obligated to pay any royalties, license fees or any other consideration to Contractor or any subcontractor for this license. Contractor and each subcontractor shall execute a separate license agreement, in form and substance satisfactory to the Owner, concurrently with the execution of this Agreement, or any subcontract or purchase order, or within ten (10) days thereafter embodying the terms of this Section. On request, Contractor and each subcontractor shall furnish the Owner or the Owner's Representative with copies of all related engineering and technical data required to complete the Work.

SECTION 18

SHOP DRAWINGS AND SAMPLES

18.1 Contractor Submittal

- (a) Contractor shall prepare for the Owner's and the Owner's Representative's approval, a submittal schedule, including all information contained in the Project Schedule, for all submittals hereafter required and shall deliver same for approval to the Owner's Representative within seven (7) days of the signing of this Agreement.
- (b) Contractor shall submit the Shop Drawings, Product Data and Samples required by the Contract Documents to the Owner's Representative for transmittal to Architect in sufficient time to allow ten (10) calendar days for review by Architect and shall adhere to the approved submittal scheduling requirements with respect thereto. After review of such Shop Drawings, Product Data and Samples by Architect, each of such items shall be returned in accordance with the procedures established herein. If Contractor deviates from the approved submittal schedule, it bears all of the risk for any delay in turn-around by Architect.
- (c) Shop Drawings, shall be accompanied by a letter of transmittal to the Owner's Representative requesting review. Contractor shall number transmittals consecutively and indicate, whether the Shop Drawings, are resubmittals, the Owner's Representative's file number of the original submittal. The letter of transmittal shall also set forth the information required in subparagraph (d) thereof.
- (d) Each Shop Drawing and letter of transmittal shall contain the following information:
 - 1. The name of the Project.
 - 2. The name of Contractor.
 - 3. The name of the firm or organization preparing the Shop Drawing.
 - 4. The date of submittal.
 - 5. The number of the Shop Drawing.
 - 6. The number and date of each revision, if any.
 - 7. The applicable section of the Specifications.

- 8. The applicable number of the Contract Drawings and detail.
- 9. The name of the person and/or persons who prepared the Shop Drawing.
- 10. Any deviations or changes from the Contract Documents.
- 11. Each copy of Shop Drawings shall be stamped and signed by Contractor indicating clearly his complete approval and signifying that the Shop Drawings (and product data) do comply with all the Contract Documents.
- (e) Shop Drawings shall show the design, dimension, connections and other details necessary to insure an accurate interpretation of the Contract Documents and shall also show adjoining work in such detail as required to provide proper connections with said adjoining work. Where adjoining connected work requires Shop Drawings, such Shop Drawings shall be submitted to the Owner's Representative for transmittal to Architect for review at the same time so that connections can be reviewed.
- (f) By submitting Shop Drawings, Product Data and Samples, Contractor represents that it has determined and verified all materials, field measurements and field construction criteria related thereto, that it has checked the Shop Drawings, Product Data and Samples for complete dimensional accuracy, that it has checked to insure that Work contiguous with and having bearing on the Work shown on the Shop Drawings is accurately and clearly shown, that it has checked the Shop Drawings against the composite drawings, that the Work has been coordinated, that the equipment will fit into the assigned spaces and that it has checked and coordinated the information contained within such submittals with the requirements of the Work and of the Contract Documents. Measurements not available prior to submission of Shop Drawings shall be noted on the Shop Drawings as not available and such measurements shall be obtained prior to fabrication.
- (g) Contractor shall submit Product Data when necessary or requested by the Owner's Representative or Architect to explain fully apparatus or equipment required by the Work. The Product Data shall be treated as Shop Drawings. Manufacturer's catalogue numbers alone are not acceptable as sufficient information or compliance with this requirement.
- (h) Samples shall be accompanied by a letter of transmittal to the Owner's Representative requesting review. Contractor shall number transmittals consecutively in sequence with Shop Drawing transmittals. Where appropriate, test data and/or manufacturers' certificates shall be referenced and forwarded with the letter of transmittal. Samples without accompanying test data or certificates will be returned without action. The letter of transmittal shall also set forth the information required in subparagraph (i) hereof.
- (i) Each Sample shall be labeled, tagged or clearly identified and each Sample and letter of transmittal shall contain the following information:
 - 1. The name of the Project.
 - The name of Contractor.
 - 3. The name of subcontractor and/or supplier, manufacturer, fabricator or processor.
 - 4. The trade designation and the grade or quality of the material or product.
 - 5. The date of submittal.
 - 6. The specific identification of each Sample.
 - 7. A precise reference to the section of Specifications, article and paragraph wherein the material, product or element of the Work is specified.

Each label or tag shall have sufficient clear space to permit the application of the approval stamps of Contractor and Architect.

- (j) In the event that a range of variations in textures, graining, color or other characteristics may be anticipated in finished materials, assemblies or elements of the Work, a sufficient number of Samples of such materials or products shall be submitted to indicate the full range of characteristics which will be present in the materials or products proposed for the Work. Any such materials or products delivered or erected prior to approval of full range Samples shall be subject to rejection.
- (k) Samples shall be submitted from the same source, which shall actually supply the Project. Samples shall be of adequate size to show quality, type, color, range, finish, texture and other specified characteristics.
- (I) Samples of materials or products which are normally furnished in containers or packages which bear descriptive labels and/or application or installation instructions shall be submitted with such labels and/or instructions.
- (m) Contractor shall submit copies of Shop Drawings, Product Data and Samples in accordance with the submittal procedure listed below. Reproducible prints shall be sepias or ozalid prints with positive side up that will provide good quality readable prints. Black and white prints shall be black line on white background. The following shall be submitted:
 - 1. Shop Drawings: One reproducible print and (six) black and white prints submitted to the Owner's Representative.
 - 2. When Shop Drawings are submitted in the form of brochures, manufacturer's standard drawings or catalogue cuts not readily available in reproducible form, seven (7) copies of each shall be submitted to the Owner's Representative.
 - 3. Three Samples shall be submitted to the Owner's Representative except as otherwise set forth in other sections of the Contract Documents.
- (n) Following Architect's review of each Shop Drawing Submission, the Owner's Representative will retain one black and white print and return the reviewed reproducible print to Contractor with Architect's stamp and signature affixed thereto annotated as follows:
 - 1. Refer to Division 1 Sections "Submittals" for review annotations:
- (o) After the review of all Product Data and Samples, the procedures set forth below will be followed:
 - The Owner's Representative will return three Product Data or two (2) Samples of each set to Contractor with Architect's stamp and signature affixed thereto and annotated in accordance with paragraph (n) above.
- (p) Contractor shall have available at the Project site all reviewed Shop Drawings, Product Data and Samples at all times for use by Contractor, its subcontractors, Architect, the Owner, or their designees, to insure that all Work is being installed in accordance with the reviewed Shop Drawings, Product Data and Samples.
- (q) The Owner shall be furnished copies of all transmittals during the processing of Shop Drawings. The Owner shall be furnished copies of all "reviewed" (no comments) or "reviewed" (see comments) Shop Drawings and product data by Contractor.

18.2 Contractor's Responsibility

Architect's review of Shop Drawings, Product Data and Samples shall not relieve Contractor of responsibility for any deviation from the requirements of the Contract Documents. Contractor shall be responsible for the accuracy of the Shop Drawings, Product Data and Samples and for the conformity of Shop Drawings, Product Data and Samples with the Contract Documents unless Contractor has notified the Owner's Representative and Architect of the deviations in writing at the time of submission and has received from the Owner's Representative written approval of the specified deviations. Architect's review shall not relieve Contractor of responsibility for dimensions,

errors or omissions in the Shop Drawings, Product Data or Samples. Contractor is solely responsible for the fit of all materials and assemblies.

18.3 Prior Approval of Architect

No portion of the Work shall be commenced until required Shop Drawings, Product Data or Samples are reviewed and approved by Architect.

SECTION 19

NOTICES

Any notice required or permitted to be given under this Contract must be in writing and shall be deemed to have been given when delivered personally or by registered or certified mail, return receipt requested, to the party to whom the notice is given at the address designated below or, if any party subsequently designates a different address for this purpose, at such subsequently designated address. Notices to Contractor shall be addressed and delivered to its address stated at the beginning of this Agreement, or to Contractor's superintendent at the site. Notices to the Owner, the Owner's Representative and Architect shall be addressed and delivered as follows:

To the Owner, Owner's Representative, and Architect:

Erie Canal Harbor Development Corporation 95 Perry Street, 4th Floor Buffalo, NY 14203 Attention: Steve Ranalli

Turner Construction Company 50 Lakefront Blvd, Suite 200 Buffalo, NY 14202 Attention: Matt Sikora

TWLA – A Fisher Associates Landscape Architecture Studio 1001 West Seneca Street, Suite 201 Ithaca, NY 14850 Attention: Kathryn Wolf

With a copy to Empire State Development Corporation:

Empire State Development Corporation 633 3rd Avenue New York, NY 10017 Attention: General Counsel

SECTION 20

NON-DISCRIMINATION AND AFFIRMATIVE ACTION

20.1 Non-Discrimination

- (a) Contractor shall comply with any and all federal, state and local laws, orders, rules and regulations which prohibit discrimination in employment or hiring because of age, race, creed, color, national origin, sex, disability or marital status of any individual.
- (b) Contractor shall make a good faith effort to achieve an overall participation by Minority and/or Women-Owned Business Enterprises, as defined in Exhibit F to this Agreement, and shall make a good faith effort to comply with ESDC's Affirmative Action and Non-Discrimination program and policies, as set forth in Exhibit F to this Agreement.

SECTION 21

STANDARD PROVISIONS

21.1 Provisions Required by Law Deemed Inserted

Each and every provision of law and governmental regulation required by law to be inserted in the Contract Documents shall be deemed to be inserted herein and this Agreement shall read and shall be enforced as though so included therein, and if through mistake or otherwise any such provision is not inserted, or is not correctly inserted, then upon the application of either party, this Agreement shall be deemed to be amended to make such insertion or correction. If this Agreement contains any unlawful provision, the same shall be deemed of no effect and shall, upon the application of either party, be deemed stricken from this Agreement without affecting the binding force of the remainder of this Agreement.

21.2 <u>Compliance with Laws, Rules and Regulations</u>

Contractor and each subcontractor shall comply fully with all applicable laws, rules and regulations pertaining to the Project or the Work including, but not limited to, all environmental laws, rules or regulations promulgated by the federal, state and local governments, in effect at the time of the Work. Contractor bears all risk associated with any deviation from such laws, rules or regulations pertaining to the Work and agrees to indemnify and hold the Owner harmless for, from and against any costs, expenses, fines or judgments which may be incurred by the Owner as a result of Contractor's deviation therefrom.

21.3 <u>Laws Governing this Agreement</u>

The Agreement shall be governed by the laws of the State of New York without giving effect to principles of conflicts of law.

21.4 No Third Party Rights

Nothing in this Agreement shall create or shall give to any third parties any claim or right of action against the Owner's Representative, Architect, the Owner, or ESDC.

21.5 Protection of Lives and Health

- (a) Contractor's and subcontractor's attention is specifically called to the rules and regulations, codes and bulletins of the New York State Department of Labor. Attention is also directed to the standards imposed under the Federal Occupational Safety and Health Act of 1970, as amended.
- (b) Contractor shall maintain an accurate record of all cases of death, occupational disease, and injury requiring medical attention or causing loss of time from work, arising out of and in the course of employment of work under this Agreement, and shall immediately notify the Owner in writing of any injury which results in hospitalization or death.

(c) Contractor alone shall be responsible for the safety, efficiency and adequacy of Contractor's Work, plants, equipment, appliances and methods, and for any damage or injury which may result from the failure, or the improper construction, maintenance, or operation of such Work, plant, equipment, appliances and methods.

21.6 Waiver of Immunity Clause

Contractor hereby agrees to the provisions of Section 139-a of the State Finance Law, which section requires that upon the refusal of a person, when called before a grand jury, head of a State department, temporary State Commission, the Organized Crime Task Force in the State Department of Law, or other State agency which is empowered to compel the attendance of witnesses and examine them under oath, to testify in an investigation concerning any transaction or contract had with the State, any political subdivision thereof, or with any public department, agency or official of the State or any political subdivision thereof or a public authority, to sign a waiver of immunity against subsequent criminal prosecution or to answer any relevant questions concerning such transaction or contract:

(a) Such person, and any firm partnership or corporation of which such person is a member, partner, director or officer shall be disqualified from thereafter selling to or submitting bids to or receiving awards from or entering into any contracts with the State of any public authority or official thereof, for goods, work or services, for the period of five (5) years after such refusal; and

Any and all contracts made with the State of any public department, agency or official thereof, since the effective date of Section 139-a of the State Finance Law, by such person and by any firm, partnership or corporation of which such person is a member, partner, director or officer may be canceled or terminated for cause without incurring any penalty or damages on account of such cancellation or termination, but any sums owing for goods delivered or work done prior to the cancellation or termination shall be paid.

21.7 <u>Prohibited Interests</u>

No official of the Owner or ESDC who is authorized in such capacity and on behalf of the Owner or ESDC to negotiate, make, accept, or approve, or to take part in negotiating, making, accepting, or approving any architectural, engineering, inspection, construction or material supply contract or any subcontract in connection with the Work, shall become directly or indirectly interested personally in the Contract. No officer, employee, architect, attorney, engineer, inspector or consultant of or for the Owner or ESDC who is authorized in such capacity and on behalf of the Owner or ESDC to exercise any legislative, executive, supervisory or other similar functions in connection with the Work, shall become directly or indirectly interested personally in the contract, any material supply contract, subcontract, insurance contract, or any other contract pertaining to the Work.

21.8 Labor Provisions

- (a) It is hereby agreed that all applicable provisions of the Labor Law of the State of New York shall be carried out in the performance of the Work including, but not limited to, Labor Law Sections 220, 220-d and 220-e, as amended (Exhibit I).
- (b) The minimum wage rates, if any, herein specified for apprentices shall apply only to persons working with the tools of the trade which such persons are learning under the direct supervision of journeymen mechanics. Except as otherwise required by law, the number of apprentices in each trade or occupation employed by Contractor or any subcontractor shall not exceed the number permitted by the applicable standards of the New York State Department of Labor, or, in the absence of such standards, the number permitted under the usual practice prevailing between the unions and the employer's association of the respective trades or occupations.

- (c) All employees of Contractor and each subcontractor shall be paid in accordance with the provisions of the Labor Law. All payments shall be made in cash, except a payment may be by check upon certification of the Industrial Commissioner of the State of New York.
- (d) Contractor agrees that, in case of underpayment of wages to any worker engaged in the Work by Contractor or any subcontractor, the Owner shall withhold from Contractor out of payments due an amount sufficient to pay such worker the difference between the wages required to be paid under the Contract Documents and the wages actually paid such worker for the total number of hours worked, and that the Owner may disburse such amount so withheld by the Owner for and on account of Contractor to the employee to whom such amount is due. Contractor further agrees that the amount to be withheld pursuant to this paragraph may be in addition to the percentages to be retained by the Owner pursuant to other provisions of the Contract documents.
- (e) Contractor shall immediately notify the Owner and the Owner's Representative of any actual or impending labor disputes which may effect or are affecting the Project Schedule of Contractor or any other contractor's work. In addition, Contractor shall take all appropriate measures to eliminate or minimize the effect of such labor dispute on the Project Schedule.
- (f) Any labor, materials, or means whose employment or utilization during the course of this Contract may tend to or in any way cause or result in strike, work stoppages, delays, suspension of Work or similar troubles by workmen employed by Contractor, its subcontractors or material suppliers, or by any of the trades working in or about the premises where Work is being performed under this Contract, or by other contractors, their subcontractors or material suppliers pursuant to other contracts shall not be allowed. Any violation by Contractor of this requirement may in the sole judgment of the Owner be considered as proper and sufficient cause for declaring Contractor to be in default, and for the Owner to terminate Contractor or take such other action as the Owner may deem proper. Contractor shall include this section in every subcontract and every lower tier subcontract.

21.9 <u>Dispute Procedure</u>

Unless the parties hereto otherwise agree in writing, Contractor shall continue to perform its obligations hereunder, pursue prosecution of the Work and maintain the Project Schedule, if applicable, during any claim, dispute or proceeding arising under or out of this Agreement ("Claim"):

- (a) Any Claim not resolved by the parties through negotiation shall be first submitted to non-binding mediation within thirty (30) days of such Claim pursuant to the American Arbitration Association's ("AAA") Construction Industry Dispute Resolution Rules as a condition precedent to litigation in a court of competent jurisdiction in the state and county where the Project is located. If such mediation is not conducted within thirty (30) days of submission to the AAA, the requirement to mediate shall be deemed waived. All disputes not resolved through non-binding mediation may only be submitted to a Court of competent jurisdiction in the state and county where the Project is located.
- (b) All sureties of Contractor in connection with the Work shall be bound by any negotiated resolution agreed to by the parties or any judgment rendered by a Court of competent jurisdiction. No such agreement or judgment shall operate in any manner whatsoever to release or discharge any such surety from all or any portion of its liabilities and obligations for which it is a surety.
- (c) If the Owner is the prevailing party in any dispute arising under this Agreement, it shall be entitled to recover from Contractor, in addition to any judgment, award or settlement, reasonable attorneys' fees, and expert witness fees, attributable to the prosecution or defense of any Claim.

21.10 Confidentiality

Contractor acknowledges that it or its employees may, in the course of performing its responsibilities under this Agreement, be exposed to or acquire information which is proprietary to or confidential to the Owner, its affiliated entities or third parties to whom the Owner has a duty of confidentiality. Any and all information of any form obtained by Contractor or its employees in the performance of this Agreement shall be deemed to be confidential and proprietary information. Contractor agrees to hold such information in strict confidence and not to disclose such information to third parties or to use such information for any purpose whatsoever other than the provision of services to the Owner as contemplated by this Agreement and to advise each of its employees and subcontractors who may be exposed to such proprietary and confidential information of their obligations to keep such information confidential. Confidential information shall not include information which is: (1) in or becomes part of the public domain other than by disclosure by Contractor in violation of this Agreement; (2) demonstrably known to Contractor previously, without a duty of confidentiality; (3) independently developed by Contractor outside of this Agreement; (4) rightfully obtained by Contractor from third parties without a duty of confidentiality: or (5) which is required to be disclosed by law, statute or regulation. This Section shall survive Final Completion or any earlier termination of this Agreement.

21.11 No Promotion

Contractor agrees that it will not without the prior written consent of the Owner in each instance, (i) use in advertising, publicity, or otherwise, the name of the Owner or any affiliate of the Owner, or any employee of the Owner nor any trade name, trademark, trade device, service mark, symbol or any abbreviation, contraction or simulation thereof owned by the Owner or its affiliates; (ii) take or cause to be taken any photographs of the Project or the site except insofar as same is necessary for the performance of the Work; or (iii) represent, directly or indirectly, that any product or any service provided by Contractor has been approved or endorsed by the Owner. This Section shall survive Final Completion or any earlier termination of this Agreement.

21.12 Limitation on Actions

No action or proceeding shall lie or shall be maintained by Contractor against the Owner unless such action shall be commenced with six (6) months after the date payment is mailed or otherwise made in respect of the Final Requisition or, if this Agreement is terminated by the Owner, unless such action is commenced within six (6) months after the date of such termination. No action or proceeding shall be commenced by Contractor against the Owner and/or the Owner's Representative except in the Supreme Court of the State of New York.

21.13 Waiver of Remedies

Contractor acknowledges that it can be compensated adequately by money damages for any breach of this Agreement which may be committed by the Owner, the Owner's Representative or Architect. Contractor agrees that no default, act or omission of the Owner, the Owner's Representative or Architect shall constitute a material breach of contract entitling Contractor to cancel or rescind this Agreement or to suspend or abandon performance thereof, other than the failure of the Owner to make a payment of the Contract Price in accordance with the terms hereof solely because sufficient funds to pay the Contract Price have not been appropriated or will otherwise not be made available to the Owner. Except as provided in this paragraph, Contractor hereby waives all rights and remedies to which Contractor might otherwise be or become entitled to become of any wrongful act or omission of the Owner, the Owner's Representative or Architect saving only Contractor's rights to money damages.

21.14 Modification of Agreement

No change in or modification, termination or discharge of this Agreement in any form whatsoever shall be valid or enforceable unless it is in writing and signed by the party to be charged therewith or its duly authorized representative, provided, however, that any change in or modification,

termination or discharge of this Agreement expressly provided for in this Contract shall be effective as so provided.

21.15 Signs and Parking

Contractor agrees that it shall not display on or about the Site any sign, trademark or other advertisement without the written approval of the Owner and to remove the same when so directed by the Owner. Contractor shall not permit any of its subcontractor or materialmen to park vehicles on the Site. Contractor shall be obligated to display at the Site any signage as required by the Owner.

21.16 Entire Agreement

The Contract Documents constitute the entire Contract between the parties and incorporate all prior understandings in connection with the subject matter hereof.

21.17 Reservation of Rights and Remedies

The duties and obligations imposed by the Contract Documents and the rights and remedies available thereunder shall be in addition to and not a limitation of any duties, obligations, rights and remedies otherwise imposed or available by law. No action or failure to act by Architect, the Owner, the ESDC, the Owner's Representative or Contractor including, but not limited to, the making of any payment nor permitting Contractor to continue with the performance of the Work shall constitute a waiver of any right or duty afforded any of them under this Agreement, nor shall any such action or failure to act constitute an approval of or acquiescence in any breach thereunder, except as may be specifically agreed in writing.

EXHIBIT A

PERFORMANCE BOND

PLEASE TAKE NOTICE:
That (Here insert the name and address or legal title of Contractor (hereinafter called the "Principal") and (Here insert the legal title of Surety) a
Corporation created and existing under the laws of the State of having its principal office in the City of (hereinafter called the "Surety") are held and firmly bound unto Empire State Development Corporation its successors and assigns (hereinafter called the "the Owner"), as Obligee, in the amount of
(\$) Dollars, for the payment whereof Principal and Surety bind themselves, their heirs executors, administrators, successors and assigns, jointly and severally, firmly by these presents.
WHEREAS, Principal has by written agreement dated, 2022 entered into a Construction Agreement with the Owner for the following:
<u>Buffalo Outer Harbor; Bell Slip Improvement Project</u> prepared by TWLA (hereinafter called the "Project") which Construction Agreement and all other documents which are defined therein as Contract Documents are by reference made a part hereof, and are hereinafter referred to as the "Contract".
NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such that, if Principal shall promptly and faithfully perform said Contract, then this obligation shall be null and void; otherwise it shall remain full force and effect.
The Surety hereby waives notice of any alteration in the terms of the contract or extension of time made by

The Surety hereby waives notice of any alteration in the terms of the contract or extension of time made by the parties thereto.

Whenever Contractor shall be, and declared by the Obligee, to be in default under the Contract, the Obligee, having performed their obligations thereunder, the Surety may promptly remedy the default, or shall promptly:

- (1) Complete the Contract in accordance with its terms and conditions; or
- Obtain a bid or bids for submission to the Owner for completing the Contract in accordance with its terms and conditions, and under determination by Surety of the lowest responsible bidder, or, if the Obligee of them elects, under determination by the Obligee, and the Surety jointly of the lowest responsible bidder, for a Contract between such Bidder and Obligee, and make available as Work progress (even though there should be a default or a succession of defaults under the contract or contracts of completion arranged under this paragraph) sufficient funds to pay the cost of completion less the balance of the contract price; but not exceeding, including other costs and damages for which the Surety may be liable hereunder, the amount set forth in this first paragraph hereof. The term "balance of the contract price," as used in this paragraph, shall mean the total amount payable by the Obligee, to Contractor under the Contract and any amendment thereto less the amount properly paid by the Obligee to Contractor.

Any suit under this bond must be instituted before the expiration of two (2) years from the date on which final payment is made under the Contract.

No right of action shall accrue of this bond to or for the use of any person or Corporation other than the Obligee named herein, or the heirs, executor, administrators, successors or assigns of the Obligee, or to other Contractors, as set forth in Section 3.3 of the aforementioned Construction Agreement.

	hereunto set his (her, their, its) hand and seal and the d by its Attorney-in-fact, and its corporate seal to be n.
Signed and sealed this day of, 2022	2.
(Witness)	(Principal)
	(Title)
(Witness)	(Surety)
	(Title)

ACKNOWLEDGEMENT OF PRINCIPAL, IF A CORPORATION

STATE OF NEW YORK)	
COUNTY OF) ss.:)	
known, who being by me du that he/she is the executed the above instrum instrument is such corporate	in the year 20 <u>22</u> , before me personally came	; n an which ed to said
(SEAL)		
ACKN	IOWLEDGMENT OF PRINCIPAL, IF A PARTNERSHIP	
known, and known to me to who executed the foregoing	_in the year 2022, before me personally came	bed in and
(SEAL)		
ACK	NOWLEDGMENT OF PRINCIPAL, IF AN INDIVIDUAL	
	_ in the year 20 <u>22,</u> before me personally came, to n person described in and who executed the foregoing instrument a she executed the same.	
(SEAL)		

ACKNOWLEDGMENT OF SURETY

On this day of in the	e year 20 <u>22,</u> before me personally came _	, to me known,
who being by me duly sworn, did o	lepose and say that he/she resides in	that
he/she is the	of the	the
	ich executed that above instrument; tha	t he knows the seal of said
	said instrument is such seal; that it was so	
•	d that he/she signed his/her name thereto	•
or Birotiono en cara corporation an	a mat mayone digned mayner mame merete	by into order.
(SEAL)		
,		
(Mitnoss)	(Principal)	
(Witness)	(Principal)	
	(Title)	
(Witness)	(Surety)	
,	· • • • • • • • • • • • • • • • • • • •	
	(Title)	
	(1146 <i>)</i>	

EXHIBIT B

LABOR AND MATERIAL PAYMENT BOND

PLEASE TAKE NOTICE:

T	(1) (1) (2) (3)
That	_(Here insert the name and address of Contractor)
(hereinafter called the "Principal") and the	a Corporation
created and existing under the laws of the State of	having its principal office in the City
of (hereinafter called the "Surety"), are held	d and firmly bound unto Empire State Development
Corporation, its successors and assigns (hereinafter cal	lled the "the Owner"), as Obligee, in the full and just
sum of (\$) Dollars good	d and lawful money of the United State of America,
for the payment of which said sum of money, well and t	truly to be made and done, the said Principal binds
themselves (himself, herself, itself), their (his, her, its)	heirs, executors, administrators, successors and
assigns, and the said Surety binds itself, its successors	s and assigns jointly and severally, firmly by these
presents: Signed, sealed and dated this	A.D.

WHEREAS, said principal has entered into a certain written Contract with the Owner for the following:

<u>Buffalo Outer Harbor; Bell Slip Improvement Project</u> (hereinafter called the "Project"), which Construction Agreement and all other documents which are defined therein as Contract Documents, are by reference made a part hereof, and are hereinafter referred to as the Contract and,

WHEREAS, the Owner has required this Bond guaranteeing prompt payment of monies due to all persons furnishing the Principal or any subcontractor of the Principal with labor or materials in the prosecution of the work provided in such Contract;

NOW, THEREFORE, the condition of the foregoing obligation is such that if the Principal shall promptly pay all monies due to all persons furnishing the Principal or any subcontractor of the Principal with labor or materials in the prosecution of the Contract, then this obligation shall be null and void, otherwise to remain in full force and effect:

PROVIDED, HOWEVER, that the said Surety for value received, hereby stipulates and agrees that no change, extension, alteration or addition to the terms of the Contract Documents shall in any wise effect its obligation under this Bond, and it does hereby waive notice of any such change, extension, alteration or addition; and further

PROVIDED, HOWEVER, that the place of trial of any action on this Bond shall be in the county in which the said Contract was to be performed, or if said Contract was to be performed in more than one county, then in any such county, and not elsewhere; and further

PROVIDED, HOWEVER, that this Bond shall be enforceable in accordance with the terms and provisions of Section 137 of the State Finance Law.

· · · · · · · · · · · · · · · · · · ·	-fact, and its corporate seal to be hereunto affixed, this day
Signed and sealed this day of	20 <u>22</u> .
(Witness)	(Principal)
	(Title)
(Witness)	(Surety)
	(Title)

Kathy Hochul,	Governor
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Erie Canal Harbor Development

Zac Rood, Architect 1001 West Seneca Street Suite 201 Ithaca NY 14850 Schedule Year Date Requested PRC#

2022 through 2023 05/01/2023 2023005009

Roberta Reardon, Commissioner

Location Wilkeson Pointe

Project ID# 19016

Project Type Construction of Comfort Station, Decks, Mini golf course, and site improvements

PREVAILING WAGE SCHEDULE FOR ARTICLE 8 PUBLIC WORK PROJECT

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

The schedule is effective from July 2022 through June 2023. All updates, corrections, posted on the 1st business day of each month, and future copies of the annual determination are available on the Department's website www.labor.ny.gov. Updated PDF copies of your schedule can be accessed by entering your assigned PRC# at the proper location on the website.

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

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

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

NOTICE OF COMPLETION / CANCELLATION OF PROJECT			
Date Completed:	Date Cancelled:		
Name & Title of Representative:			

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

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

Introduction

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

Responsibilities of the Department of Jurisdiction

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

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

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

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

Both the PW 16 and PW 200 forms are available for completion online.

Hours

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

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

Wages and Supplements

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

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

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

Payrolls and Payroll Records

Every contractor and subcontractor MUST keep original payrolls or transcripts subscribed and affirmed as true under penalty of perjury. As per Article 6 of the Labor law, contractors and subcontractors are required to establish, maintain, and preserve for not less than six (6) years, contemperaneous, 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 journeyworkers in any craft classification can be no greater than the statewide building trade ratios promulgated by the Department of Labor and included with the Prevailing Rate Schedule. An employee listed on a payroll as an apprentice who is not registered as above or is performing work outside the classification of work for which the apprentice is indentured, must be paid the prevailing journeyworker's wage rate for the classification of work the employee is actually performing.

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

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

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

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

Interest and Penalties

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

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

Debarment

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

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

Criminal Sanctions

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

Discrimination

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

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

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

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

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

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

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

Workers' Compensation

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

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

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

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

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

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

Unemployment Insurance

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

Roberta Reardon, Commissioner

Erie Canal Harbor Development

Zac Rood, Architect 1001 West Seneca Street Suite 201 Ithaca NY 14850

Kathy Hochul, Governor

Schedule Year Date Requested PRC# 2022 through 2023 05/01/2023 2023005009

Location Wilkeson Pointe

Project ID# 19016

Project Type Construction of Comfort Station, Decks, Mini golf course, and site improvements

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 InformationAll information must be supplied

Federal Employer Identification Number:						
Name:						
City: Amount of Contract: Approximate Starting Date: Approximate Completion Date:	Sta	te: Zip: Contract Type: [] (01) General Construction [] (02) Heating/Ventilation [] (03) Electrical [] (04) Plumbing [] (05) Other :				

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

Social Security Numbers on Certified Payrolls:

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

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

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

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

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

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

Effective June 23, 2020

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

(12.20)

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

Budget Policy & Reporting Manual

B-610

Public Work Enforcement Fund

effective date December 7, 2005

1. Purpose and Scope:

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

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

2. Background and Statutory References:

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

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

3. Procedures and Agency Responsibilities:

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

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

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

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

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

Reports should contain the following information:

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

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

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

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



Required Notice under Article 25-B of the Labor Law

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

The law says that you are an employee unless:

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

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

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

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

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

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

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

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

• **Civil Penalty** First offense: Up to \$2,500 per employee

Subsequent offense(s): Up to \$5,000 per employee

• Criminal Penalty First offense: Misdemeanor - up to 30 days in jail, up to a \$25,000 fine

and debarment from performing public work for up to one year.

Subsequent offense(s): Misdemeanor - up to 60 days in jail or up to a \$50,000 fine and debarment from performing public work for up to 5

years.

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

Employer Name:

New York State Department of Labor Bureau of Public Work

Attention Employees

THIS IS A: PUBLIC WORK PROJECT

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

Chapter 629 of the Labor Laws of 2007: These wages are set by law and must be posted at the work site. They can also be found at:

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

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

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

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

Contractor Name:		
Project Location:		

Requirements for OSHA 10 Compliance

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

The Bureau will enforce the statute as follows:

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

Proof of completion may include but is not limited to:

- Copies of bona fide course completion card (Note: Completion cards do not have an expiration date.)
- Training roster, attendance record of 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 requirement s on projects, and may issue stop-bid orders against public owners for non-compliance.

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

Contractors must pay subcontractors within a 7 days period.

(07.19)

Introduction to the Prevailing Rate Schedule

Information About Prevailing Rate Schedule

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

Classification

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

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

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

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

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

Payrolls and Payroll Records

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

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

Paid Holidays

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

Overtime

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

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

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

Supplemental Benefits

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

Effective Dates

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

Apprentice Training Ratios

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

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

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

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

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

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

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

Erie County General Construction

Boilermaker 05/01/2023

JOB DESCRIPTION Boilermaker

DISTRICT 12

ENTIRE COUNTIES

Allegany, Cattaraugus, Chautauqua, Chemung, Erie, Genesee, Livingston, Monroe, Niagara, Ontario, Orleans, Schuyler, Steuben, Wayne, Wyoming, Yates

WAGES

Per hour: 07/01/2022

Boilermaker \$35.10

The wage rate will be 90% of the above for Maintenance work on boilers less than 100,000 pph.

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

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

SUPPLEMENTAL BENEFITS

Per hour: \$ 31.04*

*NOTE: \$29.85 of this amount is for every Hour "Paid"

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

HOLIDAY

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

REGISTERED APPRENTICES

1st Term at 12 Months Terms 3-8 at 6 Months

Per Hour: 1st 65%

3rd 70% 4th 75% 5th 80% 6th 85% 7th 90% 8th 95%

Supplemental Benefits per hour:

All Terms \$ 31.04**

**NOTE: \$29.85 of this amount is for every Hour "Paid"

12-7

Carpenter - Building 05/01/2023

JOB DESCRIPTION Carpenter - Building

DISTRICT 12

ENTIRE COUNTIES

Erie

PARTIAL COUNTIES

Cattaraugus: Townships of Persia and Perrysburg

WAGES

Per hour: 07/01/2022

Building:

 Carpenter
 \$ 33.53

 FloorLayer
 33.53

 Certified Welder
 34.53

 Hazardous Waste Worker
 35.03

 Diver-Dry Day
 34.53

 Diver Tender
 34.53

 Diver-Wet Day***
 61.25

Hazardous Waste Worker: Hazardous sites requiring personal protective equipment.

^{***} Diver rate applies to all hours worked on the day of dive.

Depth pay for divers:

0' to 80'

no additional fee

81' to 100' additional \$0.50 per foot 101' to 150' additional \$0.75 per foot 151' and deeper additional \$1.25 per foot

Penetration pay: 0' to 50' no additional fee

51' to 100' additional \$0.75 per foot 101' and deeper additional \$1.00 per foot

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

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

SUPPLEMENTAL BENEFITS

Per hour worked:

Carpenter(s) \$ 29.00 Diver(s) \$ 29.00

OVERTIME PAY

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

HOLIDAY

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

REGISTERED APPRENTICES

Wages per hour:

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

Floorlayer Apprentices:

1st 2nd 3rd 4th 55% 60% 70% 80%

Carpenter Apprentices:

1st 2nd 3rd 4th 5th 55% 60% 65% 70% 80%

Supplemental Benefits per hour worked:

1st 2nd 3rd 4th 5th \$12.65 \$12.65 \$15.30 \$15.30

12-276B-Cat

Carpenter - Building / Heavy&Highway

05/01/2023

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:
 07/01/2022
 07/01/2023
 07/01/2024

 Additional
 Additional

Additional

Artificial Turf/Synthetic

Sport Surface \$ 33.08 \$ 2.25* \$2.25*

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

^{*}To be allocated at a later date

SUPPLEMENTAL BENEFITS

Per hour:

Journeyman \$ 25.45

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. Whan 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 Journeyman's wage):

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

Supplemental Benefits per hour:

 1st term
 \$ 16.97

 2nd term
 17.41

 3rd term
 19.40

 4th term
 19.84

2-42AtSS

Carpenter - Heavy&Highway

05/01/2023

JOB DESCRIPTION Carpenter - Heavy&Highway DISTRICT 12

ENTIRE COUNTIES

Erie

WAGES

Per hour:	07/01/2022
Carpenter	\$ 37.44
Certified Welder	39.94
Diver-Dry Day	38.44
Diver-Wet Day**	62.44
Diver Tender	38.44
Hazardous Material Worker	39.44
Piledriver	37.44
Effluent & Slurry Diver-Dry Day	57.66
Effluent & Slurry Diver-Wet Day	93.66

Hazardous Waste Worker: Hazardous sites requiring personal protective equipment.

** Diver rate applies to all hours worked on the day of dive.

Depth pay for divers: 0' to 50' no additional fee

51'to 100' additional \$0.50 per foot 101' to 150' additional \$0.75 per foot 151' to 200' additional \$1.25 per foot

Penetration pay: 0' to 50' no additional fee

51' to 100' additional \$0.75 per foot 101' to deeper additional \$1.00 per foot

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

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

SUPPLEMENTAL BENEFITS

Per hour worked:

Carpenter(s) \$31.09

DISTRICT 3

Diver(s) 31.09

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

HOLIDAY

Paid: See (2, 17) on HOLIDAY PAGE Overtime: See (5, 6) on HOLIDAY PAGE

REGISTERED APPRENTICES

Wages per hour:

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

Carpenter Apprentice:

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

Pile Driver Apprentice(1300hour terms at percentage of Pile Driver Rate)

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

Supplemental benefits Carpenter/Pile Driver per hour worked:

1st 2nd 3rd 4th 5th \$17.95 \$18.46 \$20.53 \$21.04 \$21.56

12-276HH-Erie

Electrician 05/01/2023

JOB DESCRIPTION Electrician

ENTIRE COUNTIES

Erie

PARTIAL COUNTIES

Cattaraugus: Only the Townships of Ashford, East Otto, Ellicottville, Farmersville, Freedom, Franklinville, Lyndon, Machias, Mansfield, New Albion, Otto, Perrysburg, Persia and Yorkshire.

Genesee: Only the Townships of Alabama, Alexander, Darien, Oakfield, Pembroke and that portion of the Towns of Batavia and Elba that are west of Little Tonawanda Creek; Tonawanda Creek; the City limits of Batavia (in effect prior to Feb. 1, 1970) and State Highway 98 north of the City of Batavia, then north on Highway 98 to the Orleans County line.

Wyoming: Only the Townships of Arcade, Attica, Bennington, Eagle, Java, Orangeville, Sheldon and Wethersfield.

WAGES

Per hour: 07/01/2022 05/30/2023 Additional Electrician* \$ 38.99 \$ 2.00

When shift work is mandated either in the job specification or by the contracting agency the following premiums apply:

17.3% for work from 4:30PM - 1:00AM

31.4% for work from 12:30AM - 9:00AM

Additional \$0.50/hr in shafts over 25 ft. deep and in underground tunnels over 75 ft. long.

Additional \$0.75/hr for work on toothpicks, structural steel, temporary platforms, swinging scaffolds, boatswain chairs, smoke stacks or water towers 30 ft above the floor or for work on rolling scaffolds and ladders over 50 ft.

Additional \$1.50/hr for Cable Splicers on such work as lead, and shielded cable and splices or terminations on cable 5KV and above.

Additional \$1.00/hr for Hot work (Atomic plants).

Additional \$2.00/hr for work on radio, TV, light towers and floating platforms or climbing ladders in excess of 100 ft. high.

SUPPLEMENTAL BENEFITS

Per hour:

\$ 30.55*

* NOTE - add 3% of the posted straight time or applicable premium wage rate.

OVERTIME PAY

See (B, E, 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 wages:

^{*} Includes teledata work

DISTRICT 3

0 to 1000 to 2000 to 3500 to 5000 to 6500 to 8000 \$14.45 \$15.60 \$17.55 \$21.45 \$27.30 \$31.20

Supplemental benefits per hour:

0 to 2000 to 6500 to 8200 \$13.51* \$24.40* \$30.55*

3-41

Elevator Constructor 05/01/2023

JOB DESCRIPTION Elevator Constructor

ENTIRE COUNTIES

Allegany, Cattaraugus, Chautauqua, Erie, Genesee, Niagara, Orleans, Wyoming

WAGES

 Per hour:
 07/01/2022

 Elevator Constructor
 \$ 54.98

 Helper
 38.49

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

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

SUPPLEMENTAL BENEFITS

Per hour:

\$ 36.89

Note - add 6% of regular hourly rate for all hours worked.

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

REGISTERED APPRENTICES

Wages per hour:

One year (1,700 hour each) terms at the following percentage of Journeyman's wage:

1st* 2nd 3rd 4th 55% 65% 70% 80%

Supplemental benefits per hour:

\$ 36.89

Note - add 6% of regular hourly rate for all hours worked.

3-14

Glazier 05/01/2023

JOB DESCRIPTION Glazier DISTRICT 3

ENTIRE COUNTIES

Allegany, Cattaraugus, Chautauqua, Erie, Genesee, Niagara, Orleans, Wyoming

WAGES

Per hour: 07/01/2022

Glazier \$ 29.48

Working off Suspended

Scaffold (Swing Stage) 31.48 Maintenance 19.00*

^{*} NOTE - add 3% of the posted straight time or applicable premium wage rate.

^{**} IMPORTANT NOTICE - EFFECTIVE 04/01/2009 **

^{*} Note - 0-6 months of the 1st year term is paid at 50% of Journeyman's wage with no Supplemental benefits.

^{*} Note - This rate to be used only for all repair and replacement work such as glass breakage, glass replacement, door repair and board ups.

3-660

05/01/2023

DISTRICT 3

** IMPORTANT NOTICE **

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

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

SUPPLEMENTAL BENEFITS

Per hour:

Journeymen Glazier \$ 25.09 Maintenance 16.06

OVERTIME PAY

See (B, E2, F, R) on OVERTIME PAGE

HOLIDAY

Paid: See (1) on HOLIDAY PAGE for Glazier and Glazier Apprentices.

Paid: See (5, 6) on HOLIDAY PAGE for Maintenance

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

REGISTERED APPRENTICES

Wages per hour:

Glazier: 1000 hour terms at the following percentage of Journeyman's wage:

4th 7th 8th 2nd 3rd 5th 6th 1st \$ 17.50 \$ 18.50 \$ 19.50 \$ 20.50 \$ 23.50 \$ 24.50 \$ 21.50 \$ 22.50

Supplemental benefits per hour:

 1st & 2nd terms
 \$ 8.60

 3rd & 4th terms
 11.10

 5th & 6th terms
 12.60

 7th & 8th terms
 14.10

JOB DESCRIPTION Insulator - Heat & Frost

ENTIRE COUNTIES

Insulator - Heat & Frost

Allegany, Cattaraugus, Chautauqua, Erie, Niagara, Wyoming

PARTIAL COUNTIES

Genesee: Only the Townships of Alabama, Alexander, Darien, Oakfield and Pembroke.

WAGES

 Per Hour:
 07/01/2022

 Heat & Frost Insulator
 \$ 35.50

SUPPLEMENTAL BENEFITS

Per hour:

\$ 26.79

OVERTIME PAY

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

* Note - Double time after 10 hours on Saturday.

** Note - Triple time on Labor Day if WORKED.

HOLIDAY

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

REGISTERED APPRENTICES

Wages per hour:

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

1st 2nd 3rd 4th 60% 70% 75% 80%

Supplemental Benefits per hour:

1st \$ 7.96

2nd	11.54
3rd	26.79
4th	26.79

3-4

<u>Ironworker</u> 05/01/2023

JOB DESCRIPTION Ironworker

DISTRICT 3

ENTIRE COUNTIES

Cattaraugus, Chautauqua

PARTIAL COUNTIES

Allegany: Entire county except the Towns of Birdsall, Burns and Grove. Erie: All except the Town of Grand Island north of Whitehaven Road.

Genesee: Only the Townships of Alabama, Alexander, Darien and Pembroke

Steuben: Only the Townships of Canisteo, Freemont, Greenwood, Hartsville, Hornell, Hornellsville, Howard, Jasper, Troupsburg and West

Union

Wyoming: Only the Townships of Arcade, Attica, Bennington, Eagle, Gainsville, Java, Orangeville, Pike, Sheldon, Warsaw and Wethersfield.

WAGES

Per hour:	07/01/2022
Structural	\$ 32.36
Ornamental	32.36
Layout	32.36
Rodmen	32.36
Reinforcing	32.36
Welders	32.36
Riggers & Mach. Movers	32.36
Curtain Wall Erector	32.36
Window Erector	30.01
Fence Erector	30.93

When shift work is mandated either in the job specification or by the contracting agency the following premiums apply:

10% for second shift work from 2:00PM - 7:00PM

15% for third shift work from 7:00PM - 12:00AM

When a single irregular shift is worked outside the standard workday with the start times based on second and third shifts, a 10% premium on hours worked applies.

SUPPLEMENTAL BENEFITS

Per hour:

Fence erectors \$ 30.17 All others \$ 31.67

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

HOLIDAY

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

REGISTERED APPRENTICES

Wages per hour:

One year terms at the following wage:

1st 2nd 3rd 4th \$ 19.50 \$ 21.50 \$ 23.50 \$ 25.50

Supplemental benefits per hour:

3-6

Ironworker 05/01/2023

JOB DESCRIPTION Ironworker

DISTRICT 3

ENTIRE COUNTIES

Niagara

PARTIAL COUNTIES

Erie: Only that portion of the Township of Grand Island north of Whitehaven Road.

Orleans: Only the Townships of Ridgeway, Shelby and Yates.

WAGES

Per hour:	07/01/2022
Structural	\$ 32.00
Ornamental	32.00
Reinforcing	32.00
Rigger & Mach. Mover	32.00
Pre-Engineered	32.00
Fence Erector	32.00
Pre-Cast Erector	32.00
Welder	32.00
Window Erector	32.00

When shift work is mandated either in the job specification or by the contracting agency the following premiums apply:

10% for second shift work from 2:00PM - 7:00PM

15% for third shift work from 7:00PM - 12:00AM

When a single irregular shift is worked outside the standard workday with the start times based on second and third shifts, a 10% premium on hours worked applies.

SUPPLEMENTAL BENEFITS

Per hour:

\$ 32.29

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

HOLIDAY

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

REGISTERED APPRENTICES

Wages per hour:

One year terms at the following wage:

1st term	\$ 19.50
2nd term	21.50
3rd term	23.50
4th term	25.50

Supplemental benefits per hour:

1st term	\$ 12.53
2nd term	20.23
3rd term	21.33
4th term	22.43

Laborer - Building 05/01/2023

JOB DESCRIPTION Laborer - Building

DISTRICT 3

3-9

ENTIRE COUNTIES

Erie

PARTIAL COUNTIES

Cattaraugus: Only the Townships of Perrysburg and the Village Gowanda.

WAGES

CLASS A: Basic, Safety Man, Flagman, Tool Room Man, Nurseryman, Demolition Worker, Top Man, Wrecker, IBC Barriers Except on Structures, Guard Rail, Asphalt Shovelers, Foundation Laborer over 8' in Depth, Hod Carriers, Plaster Tender, Plaster Scaffold Builder, Pneumatic Gas, Electric Tool Operator including all forms of Busters, Jackhammers and Chipping Guns, Steel Burners.

CLASS B: Mortar Mixer, Asphalt Smoothers, Pneumatic Gas, Electric Tool Operator including all forms of Busters, Jackhammers and Chipping Guns over 8' in depth.

CLASS C: Worker on any Swing Scaffold, Blaster, Plumbing Laborer, Wagon Drill Operator, Bottomman (caisson or cofferdam), Laser Setter, Asphalt Rakers, Asphalt Screed Man.

CLASS D: Stone Cutter, Curb Setter and Flag Layer.

CLASS E: Wearing of replaceable cartridge respirator.

CLASS F: Asbestos Removal, Deleader.

CLASS G: Hazardous Waste Worker.

07/01/2022 Per hour: **Building Laborer:** CLASS A \$ 30.33 **CLASS B** 30.50 CLASS C 30.61 CLASS D 31.08 CLASS E 31.33 CLASS F 31.83 CLASS G 32.33

SUPPLEMENTAL BENEFITS

Per hour:

\$27.65

OVERTIME PAY

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

HOLIDAY

Paid: See (22) 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:

0 to 1500 to 3000 to 4000 70% 80% 90%

Supplemental benefits per hour:

\$27.65

3-210b

Laborer - Heavy&Highway

05/01/2023

DISTRICT 3

JOB DESCRIPTION Laborer - Heavy&Highway

ENTIRE COUNTIES

Erie

WAGES

Heavy/Highway Laborer:

GROUP A: Basic, Drill Helper, Flagman, Outboard and Hand Boats, Demolition Worker, Nurseryman, IBC Barriers (except on structures), Guard Rails, Road Markers.

GROUP B: Grade Checker, Chain Saw, Concrete Aggregate Bin, Concrete Bootmen, Gin Buggy, Hand or Machine Vibrator, Jack Hammer, Mason Tender, Mortar Mixer, Pavement Breaker, Handlers of Steel Mesh, Small Generators for Laborers' Tools, Pipe Layers, Vibrator Type Rollers, Tamper, Drill Doctor, Tail or Screw Operator on Asphalt Paver, Water Pump Operators (2" and Single Diaphragm), Nozzle (Asphalt, Gunite, Seeding, and Sand Blasting), Laborers on Chain Link Fence Erection, Rock Splitter and Power Unit, Pusher Type Concrete Saw and all other Gas, Electric, Oil and Air Tool Operators, Wrecking Laborer and Laser Man.

GROUP C: All Rock or Drilling Machine Operators (Except Quarry Master and Similar Type), Acetylene Torch Operators, Asphalt Raker, Powderman and Welder.

GROUP D: Blasters, Curb and Flatwork Formsetter not on structures, Stone or Granite Curb Setters and Stone Cutter.

Per hour: 07/01/2022

Heavy/Highway Laborer:

GROUP A \$ 33.66 GROUP B 33.86 GROUP C 34.06 GROUP D 34.26

For all Deleader & Asbestos work add \$1.50 to Group A rate. For all Hazardous waste work add \$2.00 to Group A rate.

For use of replaceable cartridge respirator add \$1.00 to Group A rate.

An additional \$4.00 per hour is required when an irregular work shift starting any time from 3:30PM to 1:00AM is mandated either in the job specification or by the contracting agency.

Sewer/Water Laborer:

GROUP A: Basic, Flagman, Top man, Wreckers.

GROUP B: Foundation, Plaster tender, Scaffold bootman, Pneumatic, gas, electric, tool operator, jackhammer, chipping guns.

GROUP C: Mortar Mixer, over 8 ft. in depth.

GROUP D: Pavement formsetter, Steelburner, Caisson, Wagon Drill Oper., PipeLayer, Swing Scaffold.

GROUP E: Utility pave driver, Laser operator.

GROUP F: Blaster.

 Per hour:
 07/01/2022

 Sewer/Water Laborer:
 GROUP A

 GROUP B
 33.76

 GROUP C
 33.81

 GROUP D
 33.91

 GROUP E
 34.26

 GROUP F
 34.66

For all Deleader & Asbestos work add \$1.50 to Group A rate.

For all Hazardous waste work add \$2.00 to Group A rate.

An additional \$4.00 per hour is required when an irregular work shift starting any time from 3:30PM to 1:00AM is mandated either in the job specification or by the contracting agency.

SUPPLEMENTAL BENEFITS

Per hour:

\$ 27.65

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

HOLIDAY

Paid: See (5, 6) 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:

0 to 1500 to 3000 to 4000 70% 80% 90%

Supplemental benefits per hour:

\$27.65

3-210h

Laborer - Tunnel 05/01/2023

JOB DESCRIPTION Laborer - Tunnel

DISTRICT 3

ENTIRE COUNTIES

Erie

WAGES

CLASS A: Mole Nipper, Powder Handler, Changehouse Attendant and Top Laborer.

CLASS B: Air Spade, Jackhammer, Pavement Breaker.

CLASS C: Top Bell.

CLASS D: Bottom Bell, Side or Roofbelt Driller, Maintenance men, Burners, Block Layers, Rodmen, Caulkers, Miners helper, Trackmen, Nippers, Derailmen, Electrical Cablemen, Hosemen, Groutmen, Gravelmen, Form Workers, Movers and Shaftmen, Conveyor men.

CLASS E: Powder Monkey.

CLASS F: Blasters, Ironmen and Cement Worker, Miner, Welder, Heading Driller.

CLASS G: Steel Erectors, Piledriver, Rigger.

Per hour: 07/01/2022 **Tunnel Laborer:** CLASS A \$ 35.16 CLASS B 35.31 CLASS C 35.41 CLASS D 35.91 CLASS E 36.01 CLASS F 36 41 CLASS G 36.66

For all Deleader & Asbestos work add \$1.50 to Class A rate.

For all Hazardous waste add \$2.00 to Class A rate.

For use of replaceable cartridge respirator add \$1.00 to Group A rate.

An additional \$3.00 per hour is required when a single irregular work shift starting any time from 5:00PM to 1:00AM is mandated either in the job specification or by the contracting agency.

SUPPLEMENTAL BENEFITS

Per hour:

\$ 27.65

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

HOLIDAY

Paid: See (5, 6) 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:

0 to 1500 to 3000 to 4000 70% 80% 90%

Supplemental benefits per hour:

\$ 27.65

3-210t

Lineman Electrician 05/01/2023

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.

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. (Ref #14.01.01)

Per hour:	07/01/2022	05/01/2023	05/06/2024
Lineman, Technician	\$ 56.00	\$ 57.40	\$ 58.90
Crane, Crawler Backhoe	56.00	57.40	58.90
Welder, Cable Splicer	56.00	57.40	58.90
Digging Mach. Operator	50.40	51.66	53.01
Tractor Trailer Driver	47.60	48.79	50.07
Groundman, Truck Driver	44.80	45.92	47.12
Equipment Mechanic	44.80	45.92	47.12
Flagman	33.60	34.44	35.34

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

Below rates applicable on all electrical sub-stations, switching structures, fiber optic cable and all other work not defined as "Utility outside electrical work". (Ref #14.02.01-A)

Lineman, Technician	\$ 56.00	\$ 57.40	\$ 58.90
Crane, Crawler Backhoe	56.00	57.40	58.90
Cable Splicer	61.60	63.14	64.79
Certified Welder -			
Pipe Type Cable	58.80	60.27	61.85
Digging Mach. Operator	50.40	51.66	53.01
Tractor Trailer Driver	47.60	48.79	50.07
Groundman, Truck Driver	44.80	45.92	47.12
Equipment Mechanic	44.80	45.92	47.12
Flagman	33.60	34.44	35.34

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

Below rates apply on switching structures, maintenance projects, railroad catenary install/maintenance third rail installation, bonding of rails and pipe type cable and installation of fiber optic cable. (Ref #14.02.01-B)

Lineman, Tech, Welder	\$ 57.32	\$ 58.72	\$ 60.22
Crane, Crawler Backhoe	57.32	58.72	60.22
Cable Splicer	63.05	64.59	66.24
Certified Welder -			
Pipe Type Cable	60.19	61.66	63.23
Digging Mach. Operator	51.59	52.85	54.20
Tractor Trailer Driver	48.72	49.91	51.19
Groundman, Truck Driver	45.86	46.98	48.18
Equipment Mechanic	45.86	46.98	48.18
Flagman	34.39	35.23	36.13

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

Below rates applicable on all overhead and underground transmission line work & fiber optic cable where other construction trades are or have been involved. This applies to transmission line work only, not other construction. (Ref #14.03.01)

Lineman, Tech, Welder	\$ 58.51	\$ 59.91	\$ 61.41
Crane, Crawler Backhoe	58.51	59.91	61.41
Cable Splicer	58.51	59.91	61.41
Digging Mach. Operator	52.66	53.92	55.27
Tractor Trailer Driver	49.73	50.92	52.20
Groundman, Truck Driver	46.81	47.93	49.13
Equipment Mechanic	46.81	47.93	49.13
Flagman	35.11	35.95	36.85

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

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

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

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

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

SUPPLEMENTAL BENEFITS

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

	07/01/2022	05/01/2023	05/06/2024
Journeyman	\$ 25.90 *plus 7% of the hourly wage paid	\$ 26.40 *plus 7% of the hourly wage paid	\$ 26.90 *plus 7% of the hourly wage paid
Journeyman Lineman or Equipment Operators with Crane License	\$ 27.90 *plus 7% of the hourly wage paid	\$ 29.40 *plus 7% of the hourly wage paid	\$ 30.90 *plus 7% of the hourly wage paid

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

OVERTIME PAY

See (B, E, Q,) on OVERTIME PAGE. *Note* Double time for all emergency work designated by the Dept. of Jurisdiction. NOTE: WAGE CAP - Double the straight time hourly base wage shall be the maximum hourly wage compensation for any hour worked. Contractor is still responsible to pay the hourly benefit amount for each hour worked.

HOLIDAY

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

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

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

REGISTERED APPRENTICES

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

1st 60%	2nd 65%	3rd 70%	4th 75%	5th 80%	6th 85%	7th 90%	
SUPPLEMEN	ITAL BENEFI	TS per hour:	07/01/2022		05/01/2023		05/06/2024
			\$ 25.90 *plus 7% of the hourly wage paid		\$ 26.40 *plus 7% of the hourly wage paid		\$ 26.90 *plus 7% of the hourly wage paid

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

6-1249a

05/01/2023

04/04/0005

DISTRICT 6

04/04/0004

JOB DESCRIPTION Lineman Electrician - Teledata

ENTIRE COUNTIES

Lineman Electrician - Teledata

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

WAGES

Per hour:

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

	07/01/2022	01/01/2023	01/01/2024	01/01/2025
Cable Splicer	\$ 36.28	\$ 37.73	\$ 39.24	\$ 40.81
Installer, Repairman	\$ 34.43	\$ 35.81	\$ 37.24	\$ 38.73
Teledata Lineman	\$ 34.43	\$ 35.81	\$ 37.24	\$ 38.73

04/04/0000

Tech., Equip. Operator	\$ 34.43	\$ 35.81	\$ 37.24	\$ 38.73
Groundman	\$ 18.25	\$ 18.98	\$ 19.74	\$ 20.53

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

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

1ST SHIFT REGULAR RATE

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

SUPPLEMENTAL BENEFITS

Per hour:	07/01/2022	01/01/2023	01/01/2024	01/01/2025
Journeyman	\$ 5.14 *plus 3% of the hourly	\$ 5.14 *plus 3% of the hourly	\$ 5.14 *plus 3% of the hourly	\$ 5.14 *plus 3% of the hourly
	wage paid	wage paid	wage paid	wage paid

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

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

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

HOLIDAY

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

6-1249LT - Teledata

Lineman Electrician - Traffic Signal, Lighting

05/01/2023

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.

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. (Ref #14.01.01)

Per hour:	07/01/2022	05/01/2023	05/06/2024
Lineman, Technician	\$ 48.19	\$ 49.32	\$ 50.54
Crane, Crawler Backhoe	48.19	49.32	50.54
Certified Welder	50.60	51.79	53.07
Digging Machine	43.37	44.39	45.49
Tractor Trailer Driver	40.96	41.92	42.96
Groundman, Truck Driver	38.55	39.46	40.43
Equipment Mechanic	38.55	39.46	40.43
Flagman	28.91	29.59	30.32

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

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

1ST SHIFT 8:00 AM TO 4:30 PM REGULAR RATE

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

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

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

SUPPLEMENTAL BENEFITS

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

	07/01/2022	05/01/2023	05/06/2024
Journeyman	\$ 25.90 *plus 7% of the hourly wage paid	\$ 26.40 *plus 7% of the hourly wage paid	\$ 26.90 *plus 7% of the hourly wage paid
Journeyman Lineman or Equipment Operators with Crane License	\$ 27.90 *plus 7% of the hourly wage paid	\$ 29.40 *plus 7% of the hourly wage paid	\$ 30.90 *plus 7% of the hourly wage paid

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

OVERTIME PAY

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

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

HOLIDAY

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

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

REGISTERED APPRENTICES

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

1st	2nd	3rd	4th	5th	6th	7th	
60%	65%	70%	75%	80%	85%	90%	
SUPPLEM	MENTAL BEN	EFITS per hou	ır:				
		•	07/01/2	022	05/01/2	023	05/06/2024
			\$ 25.9	0	\$ 26.4	0	\$ 26.90
			*plus 7%	of	*plus 7%	of	*plus 7% of
			the hour	lv	the hour	lv	the hourly
			wage pa	,	wage pa	,	wage paid
			3		10.00		. J - P

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

6-1249a-LT

Lineman Electrician - Tree Trimmer 05/01/2023

JOB DESCRIPTION Lineman Electrician - Tree Trimmer ENTIRE COUNTIES

DISTRICT 6

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 would include stump removal near underground energized electrical lines, including telephone and CATV lines.

Per hour:	07/01/2022	01/01/2023
Tree Trimmer	\$ 28.25	\$ 29.80
Equipment Operator	24.98	26.35
Equipment Mechanic	24.98	26.35
Truck Driver	20.80	21.94
Groundman	17.13	18.07
Flag person	13.20*	13.20*

^{*}NOTE- Rate effective 12/31/2022: \$14.20

SUPPLEMENTAL BENEFITS

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

	07/01/2022	01/01/2023
Journeyman	\$ 10.23 *plus 3% of	\$ 10.48 *plus 3% of
	the hourly wage paid	the hourly wage paid

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

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

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

HOLIDAY

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

NOTE: All paid holidays falling on a Saturday shall be observed on the preceding Friday.

All paid holidays falling on a Sunday shall be observed on the following Monday.

6-1249TT

Mason - Building 05/01/2023

JOB DESCRIPTION Mason - Building

DISTRICT 3

ENTIRE COUNTIES

Erie, Niagara

PARTIAL COUNTIES

Cattaraugus: Only the Township of Perrysburg and the Village of Gowanda.

WAGES

Per hour: 07/01/2022 Plasterer \$ 30.15

Additional \$3.00/hr for work on swing stage over 20 feet.

SUPPLEMENTAL BENEFITS

Per hour:

\$ 23.49

OVERTIME PAY

Exterior work only See (B, E, E2, Q) on OVERTIME PAGE. All other work See (B, E, Q) on OVERTIME PAGE.

HOLIDAY

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

REGISTERED APPRENTICES

Wages per hour:

07/01/2022

Hour terms at the following dollar amounts:

0-1000	\$ 13.20*
1000-2000	\$ 14.00*
2000-3000	\$ 15.00
3000-4000	\$ 16.00
4000-4700	\$ 17.00
4700-5400	\$ 18.00
5400-6000	\$ 19.00
6000-7000	\$ 20.00
7000-8000	\$ 21.00

^{*}Note- Rate effective 12/31/2022: \$14.20

Supplemental benefits per hour:

Hour terms at the following dollar amounts:

0 to 4000 to 4700 to 5400 to 6000 to 8000 \$ 2.50 \$ 3.50 \$ 4.50 \$ 5.50 \$ 7.50

3-9-Pltr

Mason - Building 05/01/2023

JOB DESCRIPTION Mason - Building DISTRICT 5

ENTIRE COUNTIES

Erie, Niagara

PARTIAL COUNTIES

Cattaraugus: Only the Township of Perrysburg and the Village of Gowanda.

WAGES

Per Hour: 07/01/2022

Building:

Bricklayer \$ 34.82 Stone Mason 34.82 Tuck Pointer 34.82

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

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

SUPPLEMENTAL BENEFITS

Per hour:

Journeyman \$31.76

OVERTIME PAY

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

*Note - Or other conditions beyond the employer's control such as fire or natural disaster.

HOLIDAY

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

REGISTERED APPRENTICES

Wages per hour:

1250 hour terms at the following wage:

1st 2nd 3rd 4th \$ 27.20 \$ 27.67 \$ 29.51 \$ 32.23

Supplemental benefits per hour:

1st 2nd 3rd 4th \$ 12.65 \$ 18.85 \$ 23.70 \$ 27.67

5-3B-Z3

Mason - Building / Heavy&Highway

05/01/2023

JOB DESCRIPTION Mason - Building / Heavy&Highway

DISTRICT 3

ENTIRE COUNTIES

Erie

PARTIAL COUNTIES

Cattaraugus: Only the Township of Perrysburg and the Village of Gowanda.

WAGES

Per hour: 07/01/2022

Cement Mason \$32.00

Additional \$0.25 per hr for Swing scaffold or exterior scaffold 42' or higher.

Additional \$1.00 per hr when required to wear respirator.

SUPPLEMENTAL BENEFITS

Per hour:

\$ 33.22

OVERTIME PAY

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

HOLIDAY

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

REGISTERED APPRENTICES

Wages per hour:

750 hour terms at the following dollar amounts:

1st 2nd 3rd 4th 5th 6th \$ 19.20 \$ 20.80 \$ 22.40 \$ 24.00 \$ 25.60 \$ 27.20

Supplemental benefits per hour:

1st 2nd 3rd 4th 5th 6th \$ 8.86 \$ 11.86 \$ 11.80 \$ 15.05 \$ 17.21 \$ 20.54

3-111Erie

Mason - Heavy&Highway

05/01/2023

JOB DESCRIPTION Mason - Heavy&Highway

DISTRICT 5

ENTIRE COUNTIES

Allegany, Broome, Chautauqua, Chemung, Chenango, Cortland, Delaware, Genesee, Livingston, Monroe, Ontario, Orleans, Otsego, Schuyler, Seneca, Steuben, Tioga, Tompkins, Wayne, Wyoming, Yates

PARTIAL COUNTIES

Cattaraugus: Enitre county except in the Township of Perrysburg and the Village of Gowanda only the Bricklayer classification applies.

Erie: Only the Bricklayer classification applies. Niagara: Only the Bricklayer classification applies.

WAGES

Per hour: 07/01/2022

Heavy & Highway:

Cement Mason \$ 34.88 Bricklayer \$ 34.88

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

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

SUPPLEMENTAL BENEFITS

Per hour:

Journeyman \$ 23.53

OVERTIME PAY

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

HOLIDAY

Prevailing Wage Rates for 07/01/2022 - 06/30/2023 Last Published on May 01 2023

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

REGISTERED APPRENTICES

Wages per hour:

1500 hour terms at the following percentage of Journeyman's wage:

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

Supplemental benefits per hour:

 1st term
 \$ 14.03

 2nd term
 \$ 22.97

 3rd term
 \$ 23.11

 4th term
 \$ 23.25

5-3h

Mason - Tile Finisher 05/01/2023

JOB DESCRIPTION Mason - Tile Finisher DISTRICT 5

ENTIRE COUNTIES Erie, Niagara, Orleans

PARTIAL COUNTIES

Cattaraugus: Only the Township of Perrysburg and the Village of Gowanda.

WAGES

Per hour: 07/01/2022

Building:

Marble, Slate, Terrazzo \$ 31.71

and Tile Finisher

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

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

SUPPLEMENTAL BENEFITS

Per hour: \$ 16.97

OVERTIME PAY

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

*Note - Or other conditions beyond the employer's control such as fire or natural disaster.

HOLIDAY

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

REGISTERED APPRENTICES

Wages per hour:

1200 hours 1st and 2nd term and 1300 hours 3rd term at the following wage:

1st 2nd 3rd \$ 20.17 \$ 22.94 \$ 26.02

Supplemental benefits per hour:

1st 2nd 3rd \$ 8.94 \$ 11.05 \$ 12.87

5-3TF - Z3

Mason - Tile Setter 05/01/2023

JOB DESCRIPTION Mason - Tile Setter

DISTRICT 5

ENTIRE COUNTIES Erie, Niagara, Orleans

DISTRICT 6

Prevailing Wage Rates for 07/01/2022 - 06/30/2023 Last Published on May 01 2023

Cattaraugus: Only in the Township of Perrysburg and the Village of Gowanda.

WAGES

Per hour: 07/01/2022

Building:

Marble, Slate, Terrazzo \$ 34.85

and Tile Setter

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

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

SUPPLEMENTAL BENEFITS

Per hour: \$ 31.23

OVERTIME PAY

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

*Note - Or other conditions beyond the employer's control such as fire or natural disaster.

HOLIDAY

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

REGISTERED APPRENTICES

Wages per hour:

1250 hour terms at the following wage:

1st 2nd 3rd 4th \$ 27.08 \$ 27.50 \$ 29.12 \$ 32.54

Supplemental benefits per hour:

5-3TS - Z3

Millwright 05/01/2023

JOB DESCRIPTION Millwright

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: 07/01/2022

Millwright - Power Generation \$41.23

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 he/she is 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) are 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:

Journeyman \$ 26.72*

*NOTE: Subject to OT premium

OVERTIME PAY

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

*NOTE - Saturday may be used as a make-up day and worked at the straight time rate of pay during a work week when conditions such as weather, power failure, fire, or natural disaster prevent the performance of work on a regular scheduled work day.

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 Journeyman'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 1.00
(500' and below)

SUPPLEMENTAL BENEFITS per hour:

 Appr. 1st year
 \$ 11.83

 Appr. 2nd year
 22.26

 Appr. 3rd year
 23.74

 Appr. 4th year
 25.24

6-1163Power

Millwright 05/01/2023

JOB DESCRIPTION Millwright DISTRICT 12

ENTIRE COUNTIES

Erie, Genesee, Niagara

WAGES

Per hour: 07/01/2022

Building \$36.65 Heavy & Highway* 38.65

*All Heavy & Highway Millwright construction will be paid at the rate indicated above. H/H work performed on hazardous waste sites where employees are required to wear protective gear shall receive an additional \$2.00 per hour over the Millwright H/H rate for all hours worked on the day protective gear was worn.

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 Millwright's rate provided he/she is directed to perform certified welding.
- If a building 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.
- An employee performing the work of a machinist shall receive \$2.00 per hour in addition to the current Building & Heavy Millwright's 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 per hour.

SUPPLEMENTAL BENEFITS

Per hour Paid:

All Classifications \$ 30.37

OVERTIME PAY

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

HOLIDAY

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

DISTRICT 12

REGISTERED APPRENTICES

Wages per hour:

1300 hour terms at the following percentage of Journeyman's wage:

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

Supplemental Benefits per hour worked:

1st 2nd 3rd 4th \$12.28 \$ 24.95 \$ 26.75 \$ 28.57

12-1163-Gen/Nia/Orl/Wyo

Operating Engineer - Building

05/01/2023

JOB DESCRIPTION Operating Engineer - Building

ENTIRE COUNTIES

Cattaraugus, Chautauqua, Erie, Niagara, Orleans, Wyoming

PARTIAL COUNTIES

Genesee: Only that portion of the county that lies west of a line down the center of Route 98 excluding that area that lies within the City of Batavia.

WAGES

CLASS A: Air Hoist, All Boom Type Equipment, All Pans and Carry-Alls, Archer Hoist, Asphalt Curb and Gutter Machines, Asphalt Roller, Asphalt Spreader or Paver, Automatic Fine Grade Machine (CMI or similar, first and second operator), Backhoe and Pullhoe, Backhoe and Pullhoe (tractor mounted, rubber tired), Back Filling Machine, Belt Placer (CMI or similar type), Bending Machine (Pipe), Bituminous Spreader and Mixer, Blacktop Plants (Automated and Non-automated), Blast or Rotary Drill (Truck or Track Mounted), Blower for Burning Brush, Boiler (when used for power), Boom Truck (excluding pick-up and delivery), Boring Machine, Bulldozer, Cableway, Cage Hoist, Caisson Auger, Central Mix Plant (and all concrete batching plants), Cherry Picker, Concrete Cleaning Decontamination Machine Operator, Concrete Curb and Gutter Machine, Concrete Curing Machine, Concrete Cutters (Vermeer or Similar Type), Concrete Mixer (over 1/2 cu yd.), Concrete Pavement Spreaders and Finishers, Concrete Paver, Concrete Pump, Conveyor, Core Drill, Crane, Crusher, Decon of Equipment, Derrick, Dragline, Dredge, Drill Rig (Tractor Mounted), Dual Drum Paver, Electric Pump used in conjunction with Well Point Systems, Elevating Grader (self propelled or towed), Elevator, Excavator (all purpose, hydraulically operated), Farm Tractor with Accessories, Fine Grade Machine, Forklift, Front End Loader, Generator (10 outlets or more), Gradall, Grader, Grout or Gunite Machine, Head Tower, Heavy Equipment Robotics Operator/Mechanic, Helicopter (when used for hoisting), Hoist (one drum), Hoisting Engine, Horizontal Directional Drill Locator, Horizontal Directional Drill Operator, Hydraulic Boom, Hydraulic Hammer (self-propelled), Hydraulic Pipe Jack Machine (or similar type machine), Hydraulic Rock Expander (or similar type machine), Hydraulic System Pumps, Hydro Crane, Hydro Hammer (or similar type), Industrial Tractor, Jersey Spreader, Kolman Plant Loader (and similar type loaders), Laser Screed, Locomotive, Lubrication Truck, Maintenance Engineer, Maintenance, Lubrication Unit or Truck, Mine Hoist, Mixer for Stabilized Base (self-propelled), Monorail, Motorized Hydraulic Pin Puller, Motorized Hydraulic Seeder, Mucking Machine, Mulching Machine, Multiple Drum Hoist (more than one drum in use), Overhead Crane, Peine Crane (or similar type), Pile Driver, Plant Engineer, Pneumatic Mixer, Post Hole Digger and Driver, Power Broom, Pump Crete, Push Button Hoist, Push or Snatch Cat, Quarry Master or equivalent, Road Widener, Rock Bit Sharpener (all types), Roller (all), Rolling Machine (pipe), Rotomill, Scissors Trucks, Lift, or Boom Lift of any type (when used for hoisting), Scoopmobile, Shovel, SideBoom, Skidsteer/Bobcat (Similar Type), Skimmer, Slip Form Paver (CMI or similar type), Snorkel/Vacuum Truck, Strato-Tower, Stump Chipping Machine, Tire Truck and Drivers performing tire repair (exclude outside vendor), Towed Roller, Tractor Drawn Belt-Type Grader/Loader, Tractor Shovel, Tractor with Towed Accessories, Tractor (when using winch power), Tractors, Trencher, Truck Crane, Truck Mechanic and Helper (exclude Teamsters when repairing their own trucks), Tunnel Shovel, Tube Finisher (CMI and similar type), Ultra High Pressure Waterjet Cutting Tool System Operator/Mechanic, Vacuum Blasting Machine Operator/Mechanic, Vibro Vibro Pressure Waterjet Cutting Tool System Operator/Mechanic, Vacuum Blasting Machine Operator/Mechanic, Vibro Pressure Waterjet Cutting Tool System Operator/Mechanic, Vacuum Blasting Machine Operator/Mechanic, Vibro Pressure Waterjet Cutting Tool System Operator/Mechanic, Vacuum Blasting Machine Operator/Mechanic, Vibro Pressure Waterjet Cutting Tool System Operator/Mechanic, Vacuum Blasting Machine Operator/Mechanic, Vibro Pressure Waterjet Cutting Tool System Operator/Mechanic, Vacuum Blasting Machine Operator/Mechanic, Vibro Pressure Waterjet Cutting Tool System Operator/Mechanic, Vibro Pressure Waterjet Pressure Tamp, Well Drilling Machine, Well Point, Winch, Winch Truck with A Frame.

CLASS B: Aggregate Bin, Aggregate Plant, Apprentice Engineer, Apprentice Engineer Driver, Articulated Off Road Material Hauler, Boiler (used in conjunction with production), CMI and similar type Concrete Spreads (Apprentice Engineer), Cement Bin, Chipping Machine and Chip Spreader, Compressors (4 or less), Compressors (any size, but subject to other provisions for Compressors, Dust Collectors, Generators, Mechanical Heaters, Pumps, Welding Machines - four of any type or combination), Concrete Mixer (1/2 cu. yd. and under), Fireman, Form Tamper, Form Trucks (excluding Teamster or delivery), Fuel Truck or Drivers (exclude Teamster or delivery), Heaters, Heating Boiler (used for temporary heat), Helper on Lubrication Unit or Truck, Jeep Trencher, Power Heaterman, Power Plant in excess of 10 K.W., Pumps, Revinius Widener, Steam Boilers (if manning or license by local law is required), Steam Cleaner (when used for cleaning equipment on the job site), Welding Machine (1 machine over 300 amps or 2 or 3 machines regardless of amps).

Operating Engineer- Building:

 Per hour:
 07/01/2022

 Class A
 \$ 40.23

 Class B
 35.57

 Crane(Up to 60 Tons)
 42.73

 " (61 to 199 Tons)
 43.73

" (200 to 399 Tons) 44.23 " (400 Tons or more) 44.73

Additional \$5.00/hr. for Any Tower Crane Additional \$2.50/hr. for Hazardous Work Site

Additional \$1.00/hr. for Tunnel Work

Additional \$2.25/hr. for Agency Mandated Shift Work

SUPPLEMENTAL BENEFITS

Per Hour:

Journeyman \$ 32.65**

**Note: For Overtime Hours \$24.20 of this amount is paid a straight time, the remaining balance of \$8.45 is paid at the same premium as the wage.

OVERTIME PAY

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

* Only Saturdays between October 15th and April 15th.

HOLIDAY

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

REGISTERED APPRENTICES

Wages per hour: 1 year Terms

1st 2nd 3rd 4th \$29.63 \$30.55 \$31.47 \$32.39

Supplemental benefits Per Hour:

All Apprentices \$31.75**

**Note: For Overtime Hours \$24.20 of this amount to be paid a straight time rate remaining balance of \$7.55 is paid at same premium as the wage.

12-17b

Operating Engineer - Heavy&Highway

05/01/2023

DISTRICT 12

JOB DESCRIPTION Operating Engineer - Heavy&Highway

ENTIRE COUNTIES

Chautauqua, Erie, Niagara, Orleans

WAGES

Marine Construction/Dredging

Class 1: Diver/Wet Tender, Engineer, Engineer(hydraulic dredge), Blaster.

Class 2(A): Crane, Backhoe Operator, Material Handler, ALL Self-propelled Drill Rigs, Mechanic/Welder, Asst. Engineer(hydraulic dredge), Leverman(hydraulic dredge), Diver/Dry Tender.

Class 2(B): Friction, Lattice Boom, or Crane License Certificate, Endorse Tug or Tow Boat Operator.

Class 3: Deck Equipment Operator, (Machineryman), Maintenance of Crane, Tug/Launch Operator, Loader/Dozer on Barge.

Class 4: Deck Equipment Operator and Machinery Man/Fireman on 4 equipment units or more, Off Road Trucks, Deck Hand, Tug Engineer, Crane Maintenance(50 tons and under/ backhoe 115,000lbs or less), Asst. Tug Operator, Blaster Helper.

Per hour: 07/01/2022

Class 1 \$48.80

Class 2(A) 47.30

Class 2(B) 50.30

Class 3 42.10

Class 4 35.00

Hazardous/Toxic Waste based on EAP Levels

Additional:

Level A - \$2.50/Hr.

DISTRICT 12

Level B - 2.00/Hr. Level C - 1.00/Hr. Level D - 0.50/Hr.

SUPPLEMENTAL BENEFITS

Per Hour Paid:

ALL CLASSES \$ 32.04

OVERTIME PAY

See (B, E, I, *S) on OVERTIME PAGE

* If the Holiday is Worked

HOLIDAY

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

12-17 Marine

Operating Engineer - Heavy&Highway

05/01/2023

JOB DESCRIPTION Operating Engineer - Heavy&Highway

ENTIRE COUNTIES

Cattaraugus, Chautauqua, Erie, Niagara, Orleans, Wyoming

PARTIAL COUNTIES

Genesee: Only that portion of the county that lies west of a line down the center of Route 98 excluding that area that lies within the City of Batavia.

WAGES

CLASS A: Air Hoist, All Boom Type Equipment, All Pans and Carry-All's, Asphalt Curb and Cutter Machines, Asphalt Roller, Asphalt Spreader or Paver, Automatic Fine Grade Machine (CMI or similar, first and second operator), Backhoe and Pullhoe (all), Back Filling Machine, Belt Placer (CMI or similar type), Bending Machine (pipe), Bituminous Spreader and Mixer, Blacktop Plant (all), Blast or Rotary Drill (Truck or Track Mounted), Blower for Burning Brush, Boiler (when used for power), Boom Truck, Boring Machine, Bulldozer, Cableway, Cage Hoist, Caisson Auger, Central Mix Plant (and all Concrete Batching Plants), Cherry Picker, Concrete Cleaning Decontamination Machine, Concrete Curb and Gutter Machine, Concrete Curing Machine, Concrete Mixer (over 1/2 cu. yd.), Concrete Pavement Spreaders and Finishers, Concrete Paver, Concrete Pump, Concrete Saw (self propelled), Conveyor, Convoying Vehicles Convoying Engineer's Equipment, Core Drill, Crane, Crusher, Decontamination of Equipment, Derrick, Dragline, Dredge, Drill Rig (Tractor Mounted), Dual Drum Paver, Electric Pump used in conjunction with Well Point Systems, Elevating Grader (self propelled or towed), Elevator, Excavator (all purpose, hydraulically operated), Farm Tractor with Accessories, Fine Grade Machine, Forklift, Front End Loader, Gradall, Grader, Grout or Gunite Machine, Head Tower, Heavy Equipment Robotics Operator/Mechanic, Hoist (all types), Hoisting Engine, Horizontal Directional Drill Locator, Horizontal Directional Drill Operator, Hydraulic Boom, Hydraulic Hammer (self propelled), Hydraulic Pipe Jack Machine, (or similar type machine), Hydraulic Rock Expander (or similar type machine), Hydraulic System Pumps, Industrial Tractor, Jersey Spreader, Kolman Plant Loader (and similar type Loaders), Laser Screed, Locomotive, Log Skidder (similar type), Maintenance Engineer, Maintenance, Lubrication Unit or Truck, Mine Hoist, Mixer for Stabilized Base (self propelled), Monorail, Motorized Hydraulic Pin Puller, Motorized Hydraulic Seeder, Mucking Machine, Mulching Machine, Overhead Crane, Parts Chasing, Peine Crane (or similar type), Pile Driver, Plant Engineer, Pneumatic Mixer, Post Hole Digger and Post Driver, Power Broom, Pump Crete, Push Button Hoist, Push or Snatch Cat, Quarry Master (or equivalent), Road Widener, Rock Bit Sharpener (all types), Roller (all), Rolling Machine (Pipe), Rotomill, Scoopmobile, Shovel, Side Boom, Skidsteer/Bobcat (similar type), Skimmer, Slip Form Paver (CMI or similar, first and second operator), Snorkel/Vacuum Truck, Strato-Tower, Tire Truck & Repair, Towed Roller, Tractor Drawn Belt-Type Grader/Loader, Tractor Shovel, Tractor with Towed Accessories, Tractors (when using winch power), Trencher, Truck Crane, Tug Boats, Tunnel Shovel, Tube Finisher (CMI and similar), Vacuum Blasting Machine Operator/Mechanic, Vibratory Compactor, Vibro Tamp, Waterjet Cutting Tool System Operator/Mechanic (Ultra High Pressure), Well Drilling Machine, Well Point, Winch, Winch Truck with A Frame.

CLASS B: Aggregate Bin, Aggregate Plant, Apprentice Engineer, Apprentice Engineer Driver, Articulated Off Road Material Hauler, CMI and similar type Concrete Spreads (Apprentice Engineer), Cement Bin, Chipping Machine and Chip Spreader, Compressors (4 or less), Compressors: any size, but subject to other provisions for Compressors, Dust Collectors, Generators, Mechanical Heaters, Pumps, Welding Machines (four of any type or combination), Concrete Mixer (1/2 cu. yd. and under), Fireman, Form Tamper, Fuel Truck, Heating Boiler (used for temporary heat), Helper on Lubrication Unit or Truck, Jeep Trencher, Power Heaterman, Power Plant in excess of 10 K.W., Pumps (4" or over), Revinius Widener, Steam Cleaner, Stump Chipping Machine, Welding Machine (1 machine over 300 amps or 2 or 3 machines regardless of amps).

Operating Engineer- Heavy & Highway, Sewer (includes cleaning, lining & rehab), Water & Tunnel

Per hour:	07/01/2022
Class A	\$ 41.39
Class B	36.89
Crane 5 to 60 tons	44.39
" 61 to 199 tons	44.89
" 200 to 399 tons	45.39
" 400 and over	45.89

Additional \$1.00/hr. for Tunnel Work

Additional \$4.00/hr. for Agency Mandated Off-Shift Work

SUPPLEMENTAL BENEFITS

Per hour:

Journeymen \$34.26*

*Note: For Overtime Hours \$26.06 of the amount paid at straight time, the remaining balance of 8.20 is paid at the same premium as the wage.

OVERTIME PAY

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

HOLIDAY

Paid: See (*5, **6) on HOLIDAY PAGE
Overtime: See (5, 6) on HOLIDAY PAGE
*Saturday Holidays will be recognized on the Friday before
**Sunday Holidays will be recognized on the Monday after

REGISTERED APPRENTICES

Wages per hour:

Apprentices at 1 year terms

1st 2nd 3rd 4th \$33.89 \$34.89 \$35.89 \$36.89

Supplemental Benefits

All Apprentices \$ 33.86*

*Note: For Overtime Hours \$26.06 of the amount paid at straight time, the remaining balance of \$7.80 is paid at same premium as the wage.

12-17 hh/sw/t

Operating Engineer - Survey Crew

05/01/2023

DISTRICT 12

JOB DESCRIPTION Operating Engineer - Survey Crew

ENTIRE COUNTIES

Cattaraugus, Chautauqua, Erie, Niagara, Orleans, Wyoming

PARTIAL COUNTIES

Genesee: Only that portion of the county that lies west of a line down the center of Route 98 excluding that area that lies within the City of Batavia.

WAGES

These rates apply to Building, Heavy and Highway Construction.

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.

07/01/2022

Party Chief \$45.62 Instrument Person 43.01 Rod Person 29.78

Additional \$3.00 per hr. for work in a Tunnel.

Additional \$2.50 per hr. for EPA or DEC certified toxic or hazardous waste work.

SUPPLEMENTAL BENEFITS

Per hour worked:

Journeyman \$29.60

OVERTIME PAY

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

*Note: \$24.25 Only for "ALL" premium hours paid.

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 Person wage:

07/01/2022

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

SUPPLEMENTAL BENEFITS per hour worked:

0-1000 Hrs \$ 17.76 / PHP \$14.55 1001-2000 Hrs 20.72 / " 16.98 2001-3000 Hrs 23.68 / " 19.40

NOTE: PHP is premium hours paid when worked.

12-17D Sur

Operating Engineer - Survey Crew - Consulting Engineer

05/01/2023

JOB DESCRIPTION Operating Engineer - Survey Crew - Consulting Engineer

DISTRICT 12

ENTIRE COUNTIES

Cattaraugus, Chautauqua, Erie, Niagara, Orleans, Wyoming

PARTIAL COUNTIES

Genesee: Only that portion of the county that lies west of a line down the center of Route 98 excluding that area that lies within the City of Batavia.

WAGES

These rates apply to feasibility and preliminary design surveying, line of 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.

07/01/2022

Party Chief \$45.62 Instrument Person 43.01 Rod Person 29.78

SUPPLEMENTAL BENEFITS

Per hour worked:

Journeyman \$ 29.60

OVERTIME PAY

See (B, E, Q, *V, X) on OVERTIME PAGE *Note: \$24.25 Only for "ALL" premium hours paid.

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:

07/01/2022

 0-1000
 60%

 1001-2000
 70%

 2001-3000
 80%

SUPPLEMENTAL BENEFITS per hour worked:

0-1000 \$ 17.76 / PHP \$14.55 1001-2000 20.72 / " 16.98 2001-3000 23.68 / " 19.40

NOTE: PHP is premium hours paid.

12-17D Con Eng

Painter 05/01/2023

JOB DESCRIPTION Painter DISTRICT 3

ENTIRE COUNTIES

Allegany, Erie, Genesee, Niagara, Orleans, Wyoming

PARTIAL COUNTIES

Cattaraugus: Entire County except the Townships of Conewango, Leon, Napoli, New Albion, Randolph and South Valley. Chautauqua: Only the Townships of Awkright, Dunkirk, Hanover, Pomfret, Portland, Sheridan and Villenova.

Livingston: Only the Townships of North Dansville, Nunda, Ossian, Portage, Sparta, Spring Water and West Sparta.

Steuben: Only the Townships of Avoca, Canisteo, Cohocton, Dansville, Fremont, Greenwood, Hartsville, Hornellsville, Howard, Jasper, Prattsburg, Pulteney, Troupsburg, Tuscarora, Urbana, Wayland, Wayne, Woodhull, West Union, Wheeler, and the City of Hornell.

WAGES

 Per hour:
 07/01/2022

 Basic Rate (Brush & Roll)
 \$ 29.27

 Spray painting, wallcovering
 29.27

 Abrasive and hydroblasting
 29.27

 Taping/DryWall Finisher
 29.97

 Skeleton Steel*
 30.02

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

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

SUPPLEMENTAL BENEFITS

Per hour:

\$ 26.45

OVERTIME PAY

Exterior work only See (B, E4, F*, R) on OVERTIME PAGE.

All other work See (B, F*, R) on OVERTIME PAGE.

HOLIDAY

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

REGISTERED APPRENTICES

Wages per hour:

Painter/Decorator: 750 hour terms at the following percentage of Journeyman's Basic wage rate:

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

Taper/Drywall Finisher: 750 hour terms at the following percentage of Journeyman's Taper wage:

1st 2nd 3rd 4th 5th 6th \$ 20.00 \$ 21.00 \$ 22.00 \$ 23.00 \$ 24.00 \$ 25.00

Supplemental benefits per hour:

Painter/Decorator and Taper/Drywall Finisher:

1st 2nd 3rd 4th 5th 6th 7th 8th \$ 3.35 \$6.35 \$7.35 \$ 5.35 \$ 6.85 \$ 7.85 \$8.35 \$8.60

3-4-Buf, Nia, Olean

Painter 05/01/2023

^{*} Skeleton Steel: No floors, walls or ceiling are constructed, including radio and television towers, flagpoles, smokestacks, cranes and the abatement of coatings with lead, asbestos and/or arsenic, etc. All work within the confines of a plant shall be paid the skeleton steel rate (except in-plant tank work (see Tank Rate)).

^{*} Note - Saturday is payable at straight time if the employee misses work, except where a doctor's or hospital verification of illness is produced Monday through Friday when work was available to the employee.

JOB DESCRIPTION Painter

DISTRICT 3

ENTIRE COUNTIES

Allegany, Broome, Cattaraugus, Cayuga, Chautauqua, Chemung, Chenango, Cortland, Delaware, Erie, Genesee, Herkimer, Jefferson, Lewis, Livingston, Madison, Monroe, Niagara, Oneida, Onondaga, Ontario, Orleans, Oswego, Otsego, Schuyler, Seneca, St. Lawrence, Steuben, Tioga, Tompkins, Wayne, Wyoming, Yates

WAGES

Per hour: 07/01/2022

Bridge \$41.06 Tunnel 41.06 Tank* 39.06

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

Tank rate applies to indoor and outdoor tanks, tank towers, standpipes, digesters, waste water treatment tanks, chlorinator tanks, etc. Covers all types of tanks including but not limited to steel tanks, concrete tanks, fiberglass tanks, etc.

Note an additional \$1.50 per hour is required when the contracting agency or project specification requires any shift to start prior to 6:00am or after 12:00 noon.

SUPPLEMENTAL BENEFITS

Per hour:

\$ 29.89

OVERTIME PAY

Exterior work only See (B, E4, F*, R) on OVERTIME PAGE.

All other work See (B, F*, R) on OVERTIME PAGE.

*Note - Saturday is payable at straight time if the employee misses work, except where a doctor's or hospital verification of illness is produced Monday through Friday when work was available to the employee.

HOLIDAY

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

REGISTERED APPRENTICES

Wages per hour:

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

1st	2nd	3rd	4th	5th	6th
\$ 24.00	\$ 26.00	\$ 28.00	\$ 30.00	\$ 34.00	\$ 38.00

Supplemental benefits per hour:

1st	2nd	3rd	4th	5th	6th
\$ 6.60	\$ 6.95	\$ 7.30	\$ 7.65	\$ 8.00	\$ 8.35

3-4-Bridge, Tunnel, Tank

Painter - Metal Polisher 05/01/2023

JOB DESCRIPTION Painter - Metal Polisher

DISTRICT 8

ENTIRE COUNTIES

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

WAGES

 07/01/2022

 Metal Polisher
 \$ 37.78

 Metal Polisher*
 38.80

 Metal Polisher**
 41.78

*Note: Applies on New Construction & complete renovation

SUPPLEMENTAL BENEFITS

Per Hour: 07/01/2022

Journeyworker:

All classification \$ 11.24

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

DISTRICT 3

OVERTIME PAY

See (B, E, P, T) on OVERTIME PAGE

HOLIDAY

Paid: See (5, 6, 11, 15, 16, 25, 26) on HOLIDAY PAGE Overtime: See (5, 6, 9, 11, 15, 16, 25, 26) on HOLIDAY PAGE

REGISTERED APPRENTICES

Wages per hour:

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

	07/01/2022
1st year	\$ 16.00
2nd year	17.00
3rd year	18.00
1st year*	\$ 16.39
2nd year*	17.44
3rd year*	18.54
1st year**	\$ 18.50
2nd year**	19.50
3rd year**	20.50

^{*}Note: Applies on New Construction & complete renovation

Supplemental benefits:

Per hour:

1st year	\$ 7.99
2nd year	7.99
3rd year	7.99

8-8A/28A-MP

05/01/2023 Plumber

JOB DESCRIPTION Plumber

ENTIRE COUNTIES

Erie, Niagara, Wyoming

PARTIAL COUNTIES

Allegany: Only the Townships of Allen, Angelica, Belfast, Caneadea, Centerville, Granger, Hume, New Hudson and Rushford Cattaraugus: Only the Townships of Ashford, Dayton, East Otto, Ellicottville, Farmersville, Franklinville, Freedom, Leon, Lyndon, Machias,

Mansfield, New Albion, Otto, Perrysburg, Persia and Yorkshire.
Chautauqua: Only the Townships of Arkwright, Charlotte, Cherry Creek, Dunkirk, Hanover, Pomfret, Portland, Ripley, Sheridan, Stockton,

Villenova, Westfield, City of Dunkirk and Village of Fredonia.

Genesee: Only the Townships of Alabama, Alexander, Batavia, Darien, Elba, Oakfield, Pembroke and the City of Batavia. Orleans: Only the Townships of Ridgeway, Shelby and Yates.

WAGES

Per hour: 07/01/2022 Plumber \$ 38.05 Steamfitter \$ 38.05

Note - Add 10% (ten-percent) to wage when HAZMAT training is required or when OSHA compliant respirator protection is required.

SUPPLEMENTAL BENEFITS

Per hour:

\$28.20

Note - \$4.64 of this amount must be paid at the same premium as the wage.

OVERTIME PAY

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

- * Double time after 11 hours per day on Weekdays.
- ** Double time after 10 hours per day on Saturday.

HOLIDAY

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

REGISTERED APPRENTICES

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

Wages per hour:

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

1st 2nd 3rd 4th 5th 45% 55% 65% 75% 90%

Note - Add 10% (ten-percent) to wage when HAZMAT training is required or when OSHA compliant respirator protection is required.

Supplemental benefits per hour:

\$23.40

Note - \$4.64 of this amount must be paid at the same premium as the wage

3-22-Buffalo, Niagara

Roofer 05/01/2023

JOB DESCRIPTION Roofer **DISTRICT** 3

07/01/2022

ENTIRE COUNTIES

Erie, Genesee, Niagara, Orleans, Wyoming

WAGES Per hour:

\$ 34.96 Asbestos Removal Slate. Tile 32.11 Precast tile / slabs 32.11 32.11 Crete / gypsum planks Damp and waterproofer 31.96 Composition, sprayers, 31.96 Asphalt mastic. 31.96 Steep roofers 31.96

When shift work is mandated either in the job specification or by the contracting agency the following premiums apply:

15.0% for work from 4:30PM - 1:00AM or second shift 20.0% for work from 12:30AM - 9:00AM or third shift

SUPPLEMENTAL BENEFITS

Per hour:

\$ 24.76

OVERTIME PAYSee (B, *E, **E2, Q) on OVERTIME PAGE * and ** Double time after 8 hours on Saturday.

HOLIDAY

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

REGISTERED APPRENTICES

Wages per hour:

Hour terms at the following percentage of Journeyman's wage:

to 999 to 1499 to 1999 to 2499 to 2999 to 3499 to 4499 80% 85% 90% 65% 70% 75% 95%

Supplemental benefits per hour:

to 999 to 1499 to 1999 to 2499 to 2999 to 3499 4499 \$ 9.70 \$ 13.87 \$ 14.10 \$ 21.92 \$ 22.63 \$ 23.34 \$ 24.05

3-74

DISTRICT 3

Sheetmetal Worker 05/01/2023

JOB DESCRIPTION Sheetmetal Worker

ENTIRE COUNTIES

Erie, Genesee, Niagara, Orleans, Wyoming

WAGES

Per hour: 07/01/2022 Sheet Metal Worker

\$ 37.44

Additional \$0.50 per hour for work more than 30" above floor on boatswain chair.

Additional \$1.00 per hour for work in "Hot" areas of atomic laboratories, atomic plants, or any premises where radio-active materials are stored or handled and personal protective equipment is required.

Additional \$1.00 per hour for work when required to have 40-hour HAZMAT training or the use of OSHA compliant respirator is required.

When shift work is mandated either in the job specification or by the contracting agency the following premiums apply:

Shift Premium per hour:

Second Shift \$ 3.25 Third Shift \$5.00

SUPPLEMENTAL BENEFITS

Per hour:

\$ 27.63*

OVERTIME PAY

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

HOLIDAY

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

REGISTERED APPRENTICES

Wages per hour:

One year terms at the following wage:

1st term	\$ 19.59
2nd term	23.94
3rd term	26.51
4th term	28.07
5th term	31.19

Supplemental benefits per hour:

1st term	\$ 17.10	Note - \$8.20 of this amount must be paid at the same premium as the wage.
2nd term	20.82	Note - \$11.92 of this amount must be paid at the same premium as the wage.
3rd term	25.46	Note - \$15.56 of this amount must be paid at the same premium as the wage.
4th term	25.77	Note - \$15.87 of this amount must be paid at the same premium as the wage.
5th term	26.39	Note - \$16.49 of this amount must be paid at the same premium as the wage.

When shift work is mandated either in the job specification or by the contracting agency the following premiums apply; Shift Premium per hour:

Second Shift

\$ 1.46
\$ 1.63
\$ 1.79
\$ 2.28
\$ 2.60

Third Shift

\$ 2.25 1st term 2nd term \$ 2.50 3rd term \$ 2.75 4th term \$ 3.50 5th term \$4.00

Sprinkler Fitter 05/01/2023

JOB DESCRIPTION Sprinkler Fitter

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 07/01/2022

Page 50

3-71

DISTRICT 1

^{*} Note - \$17.73 of this amount must be paid at the same premium as the wages per overtime hours.

Sprinkler \$38.15

Fitter

SUPPLEMENTAL BENEFITS

Per hour

Journeyperson \$ 27.68

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
\$ 18.30	\$ 20.34	\$ 22.12	\$ 24.15	\$ 26.19	\$ 28.22	\$ 30.25	\$ 32.29	\$ 34.32	\$ 36.35
Supplemental	Benefits per l	hour							
1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
\$ 8.37	\$ 8.37	\$ 19.76	\$ 19.76	\$ 20.01	\$ 20.01	\$ 20.01	\$ 20.01	\$ 20.01	\$ 20.01 1-669

Teamster - Building / Heavy&Highway

05/01/2023

JOB DESCRIPTION Teamster - Building / Heavy&Highway

DISTRICT 3

ENTIRE COUNTIES

Erie, Niagara

PARTIAL COUNTIES

Genesee: Only in the Townships of Alabama, Darien and Pembroke.

Orleans: Only the Townships of Ridgeway, Shelby and Yates.

Wyoming: Only in the Townships of Arcade, Bennington, Java and Sheldon.

WAGES

GROUP 1: Warehousemen, Yardmen, Truck Helpers, Pickups, Panel Trucks, Flatboy Material Trucks (straight jobs), Single Axle Dump Trucks, Dumpsters, Material Checkers and Receivers, Greasers, Truck Tiremen, Mechanics Helpers and Parts Chasers.

GROUP 2: Tandems and Batch Trucks, Mechanics, Dispatcher.

GROUP 3: Semi-Trailers, Low-Boy Trucks, Asphalt Distributor Trucks and Agitator, Mixer Trucks and dumpcrete type vehicles, Truck Mechanic, Fuel Trucks

GROUP 4: Specialized Earth Moving Equipment, Euclid type, or similar off-highway, where not self-loading, Straddle (Ross) Carrier, and self-contained concrete mobile truck.

GROUP 5: Off-highway Tandem Back-Dump, Twin Engine Equipment and Double-Hitched Equipment where not self-loading.

Per hour: 07/01/2022 All GROUPS \$ 43.22

Add \$2.00 when required to use personal protection when performing hazardous waste removal work.

An additional \$3.00 per hour is required when a single irregular work shift starting any time from 5:00PM to 1:00AM is mandated either in the job specification or by the contracting agency.

SUPPLEMENTAL BENEFITS

Per hour:

\$ 16.19*

*Note - Only \$ 7.66 per hour needs to be paid for overtime hours.

OVERTIME PAY

See (B, G, P) on OVERTIME PAGE

HOLIDAY

Paid: See (5, 6) on HOLIDAY PAGE

Overtime: See (5, 6) on HOLIDAY PAGE

3-449

Teamster - Building / Heavy&Highway

05/01/2023

JOB DESCRIPTION Teamster - Building / Heavy&Highway

ENTIRE COUNTIES

Erie, Niagara

WAGES

Per hour: 07/01/2022 Dump Truck Operator* \$ 27.00

*Does not include Single Axle Dump Trucks (see Teamster Group 1).

*Does not include Off-highway Dump Trucks (see Teamster Groups 2-5).

SUPPLEMENTAL BENEFITS

Per hour:

\$ 2.02

OVERTIME PAY

See (B, B2, Q) on OVERTIME PAGE

HOLIDAY

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

3-449d-DT

Welder 05/01/2023

JOB DESCRIPTION Welder

DISTRICT 1

DISTRICT 3

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 07/01/2022

Welder: To be paid the same rate of the mechanic performing the work.*

*EXCEPTION: If a specific welder certification is required, then the 'Certified Welder' rate in that trade tag will be paid.

OVERTIME PAY

HOLIDAY

1-As Per Trade

Overtime Codes

Following is an explanation of the code(s) listed in the OVERTIME section of each classification contained in the attached schedule. Additional requirements may also be listed in the HOLIDAY section.

NOTE: Supplemental Benefits are 'Per hour worked' (for each hour worked) unless otherwise noted

(AA)	Time and one half of the hourly rate after 7 and one half hours per day
(A)	Time and one half of the hourly rate after 7 hours per day
(B)	Time and one half of the hourly rate after 8 hours per day
(B1)	Time and one half of the hourly rate for the 9th & 10th hours week days and the 1st 8 hours on Saturday. Double the hourly rate for all additional hours
(B2)	Time and one half of the hourly rate after 40 hours per week
(C)	Double the hourly rate after 7 hours per day
(C1)	Double the hourly rate after 7 and one half hours per day
(D)	Double the hourly rate after 8 hours per day
(D1)	Double the hourly rate after 9 hours per day
(E)	Time and one half of the hourly rate on Saturday
(E1)	Time and one half 1st 4 hours on Saturday; Double the hourly rate all additional Saturday hours
(E2)	Saturday may be used as a make-up day at straight time when a day is lost during that week due to inclement weather
(E3)	Between November 1st and March 3rd Saturday may be used as a make-up day at straight time when a day is lost during that week due to inclement weather, provided a given employee has worked between 16 and 32 hours that week
(E4)	Saturday and Sunday may be used as a make-up day at straight time when a day is lost during that week due to inclement weather
(E5)	Double time after 8 hours on Saturdays
(F)	Time and one half of the hourly rate on Saturday and Sunday
(G)	Time and one half of the hourly rate on Saturday and Holidays
(H)	Time and one half of the hourly rate on Saturday, Sunday, and Holidays
(1)	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.)

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Holiday Codes

PAID Holidays:

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

OVERTIME Holiday Pay:

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

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

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

(29) Juneteenth



New York State Department of Labor - Bureau of Public Work State Office Building Campus Building 12 - Room 130 Albany, New York 12240

REQUEST FOR WAGE AND SUPPLEMENT INFORMATION

As Required by Articles 8 and 9 of the NYS Labor Law

 $Fax\ (518)\ 485\text{-}1870\ \text{or mail this form for new schedules or for determination for additional occupations}.$

This Form Must Be Typed

Submitted By: (Check Only One) Contracting Agency Architect or Engineering	g Firm Public Work District Office Date:			
A. Public Work Contract to be let by: (Enter Data Pertaining to	Contracting/Public Agency)			
1. Name and complete address	2. NY State Units (see Item 5)			
E-Mail: 3. SEND REPLY TO Check if new or change) Name and complete address:	4. SERVICE REQUIRED. Check appropriate box and provide project information. New Schedule of Wages and Supplements. APPROXIMATE BID DATE: Additional Occupation and/or Redetermination			
Telephone:() Fax: () E-Mail:	PRC NUMBER ISSUED PREVIOUSLY FOR THIS PROJECT :			
B. PROJECT PARTICULARS				
5. Project Title Description of Work Contract Identification Number Note: For NYS units, the OSC Contract No.	6. Location of Project: Location on Site Route No/Street Address Village or City Town County			
7. Nature of Project - Check One: 1. New Building 2. Addition to Existing Structure 3. Heavy and Highway Construction (New and Repair) 4. New Sewer or Waterline 5. Other New Construction (Explain) 6. Other Reconstruction, Maintenance, Repair or Alteration 7. Demolition 8. Building Service Contract	8. OCCUPATION FOR PROJECT : Construction (Building, Heavy Highway/Sewer/Water) Tunnel Residential Landscape Maintenance Elevator maintenance Elevator maintenance Exterminators, Fumigators Fire Safety Director, NYC Only Guards, Watchmen Janitors, Porters, Cleaners Elevator Operators Moving furniture and equipment Trash and refuse removal Window cleaners Other (Describe)			
9. Has this project been reviewed for compliance with the Wid	cks 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.

<u>Debarment Database:</u> 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, <u>or</u> under NYS Workers' Compensation Law Section 141-b, access the database at this link: https://applications.labor.ny.gov/EDList/searchPage.do

For inquiries where WCB is listed as the "Agency", please call 1-866-546-9322

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	****4018	ADIRONDACK BUILDING RESTORATION INC.		4156 WILSON ROAD EAST TABERG NY 13471	03/26/2019	03/26/2024
DOL	AG	****1812	ADVANCED BUILDERS & LAND DEVELOPMENT, INC.		400 OSER AVE #2300HAUPPAUGE NY 11788	09/11/2019	09/11/2024
DOL	DOL	****1687	ADVANCED SAFETY SPRINKLER INC		261 MILL ROAD P.O BOX 296EAST AURORA NY 14052	05/29/2019	05/29/2024
DOL	NYC		AGOSTINHO TOME		405 BARRETTO ST BRONX NY 10474	05/31/2018	05/31/2023
DOL	NYC		ALL COUNTY SEWER & DRAIN, INC.		7 GREENFIELD DR WARWICK NY 10990	03/25/2022	03/25/2027
DOL	NYC		AMJED PARVEZ		401 HANOVER AVENUE STATEN ISLAND NY 10304	01/11/2021	01/11/2026
DOL	DOL		ANGELO F COKER		2610 SOUTH SALINA STREET SUITE 14SYRACUSE NY 13205	09/17/2020	09/17/2025
DOL	DOL		ANGELO F COKER		2610 SOUTH SALINA STREET SUITE 14SYRACUSE NY 13205	12/04/2018	12/04/2023
DOL	DOL		ANGELO GARCIA		515 WEST AVE UNIT PH 13NORWALK CT 06850	05/12/2021	05/12/2026
DOL	DOL		ANGELO TONDO		449 WEST MOMBSHA ROAD MONROE NY 10950	06/06/2022	06/06/2027
DOL	DOL		ANITA SALERNO		158 SOLAR ST SYRACUSE NY 13204	01/07/2019	01/07/2024
DOL	DOL	****4231	ANKER'S ELECTRIC SERVICE, INC.		10 SOUTH 5TH ST LOCUST VALLEY NY 11560	09/26/2022	09/26/2027
DOL	DOL		ANTONIO ESTIVEZ		442 ARMONK RD MOUNT KISCO NY 10549	06/12/2018	06/12/2023
DOL	NYC		ARADCO CONSTRUCTION CORP		115-46 132RD ST SOUTH OZONE PARK NY 11420	09/17/2020	09/17/2025
DOL	DOL		ARNOLD A. PAOLINI		1250 BROADWAY ST BUFFALO NY 14212	02/03/2020	02/03/2025
DOL	NYC		ARSHAD MEHMOOD		168-42 88TH AVENUE JAMAICA NY 11432	11/20/2019	11/20/2024
DOL	NYC	*****2591	AVI 212 INC.		260 CROPSEY AVENUE APT 11GBROOKLYN NY 11214	10/30/2018	10/30/2023
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	NYC		BALWINDER SINGH		421 HUDSON ST SUITE C5NEW YORK NY 10014	02/20/2019	02/20/2024
DOL	NYC	****8416	BEAM CONSTRUCTION, INC.		50 MAIN ST WHITE PLAINS NY 10606	01/04/2019	01/04/2024
DOL	DOL		BERNARD BEGLEY		38 LONG RIDGE ROAD BEDFORD NY 10506	12/18/2019	12/18/2024
DOL	NYC	****2113	BHW CONTRACTING, INC.		401 HANOVER AVENUE STATEN ISLAND NY 10304	01/11/2021	01/11/2026
DOL	DOL		BIAGIO CANTISANI			06/12/2018	06/12/2023
DOL	DOL	****3627	BJB CONSTRUCTION CORP.		38 LONG RIDGE ROAD BEDFORD NY 10506	12/18/2019	12/18/2024
DOL	DOL	****4512	BOB BRUNO EXCAVATING, INC		5 MORNINGSIDE DR AUBURN NY 13021	05/28/2019	05/28/2024
DOL	DOL		BOGDAN MARKOVSKI		370 W. PLEASANTVIEW AVE SUITE 2.329HACKENSACK NJ 07601	02/11/2019	02/11/2024
DOL	DOL		BRADLEY J SCHUKA		4 BROTHERS ROAD WAPPINGERS FALLS NY 12590	10/20/2020	10/20/2025
DOL	DOL		BRUCE P. NASH JR.		5841 BUTTERNUT ROAD EAST SYRACUSE NY 13057	09/12/2018	09/12/2023
DOL	DOL	*****9383	C.C. PAVING AND EXCAVATING, INC.		2610 SOUTH SALINA ST SUITE 12SYRACUSE NY 13205	09/17/2020	09/17/2025
DOL	DOL	*****9383	C.C. PAVING AND EXCAVATING, INC.		2610 SOUTH SALINA ST SUITE 12SYRACUSE NY 13205	12/04/2018	12/04/2023
DOL	DOL	****4083	C.P.D. ENTERPRISES, INC		P.O BOX 281 WALDEN NY 12586	03/03/2020	03/03/2025

DOL	DOL	****5161	CALADRI DEVELOPMENT CORP.		1223 PARK ST. PEEKSKILL NY 10566	05/17/2021	05/17/2026
DOL	DOL	*****3391	CALI ENTERPRISES, INC.		1223 PARK STREET PEEKSKILL NY 10566	05/17/2021	05/17/2026
DOL	NYC		CALVIN WALTERS		465 EAST THIRD ST MT. VERNON NY 10550	09/09/2019	09/09/2024
DOL	DOL		CANTISANI & ASSOCIATES LTD		442 ARMONK RD MOUNT KISCSO NY 10549	06/12/2018	06/12/2023
DOL	DOL		CANTISANI HOLDING LLC			06/12/2018	06/12/2023
DOL	DOL		CARMEN RACHETTA		8531 OSWEGO RD BALDWINSVILLE NY 13027	02/03/2020	02/03/2025
DOL	DOL	*****3812	CARMODY "2" INC			06/12/2018	06/12/2023
DOL	DOL	****1143	CARMODY BUILDING CORP	CARMODY CONTRACTIN G AND CARMODY CONTRACTIN G CORP.	442 ARMONK RD MOUNT KISCO NY 10549	06/12/2018	06/12/2023
DOL	DOL		CARMODY CONCRETE CORPORATION			06/12/2018	06/12/2023
DOL	DOL		CARMODY ENTERPRISES, LTD.		442 ARMONK RD MOUNT KISCO NY 10549	06/12/2018	06/12/2023
DOL	DOL		CARMODY INC		442 ARMONK RD MOUNT KISCO NY 10549	06/12/2018	06/12/2023
DOL	DOL	****3812	CARMODY INDUSTRIES INC			06/12/2018	06/12/2023
DOL	DOL		CARMODY MAINTENANCE CORPORATION		442 ARMONK RD MOUNT KISCO NY 10549	06/12/2018	06/12/2023
DOL	DOL		CARMODY MASONRY CORP		442 ARMONK RD MOUNT KISCO NY 10549	06/12/2018	06/12/2023
DOL	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		CHARLES ZAHRADKA		863 WASHINGTON STREET FRANKLIN SQUARE NY 11010	03/10/2020	03/10/2025
DOL	DOL		CHRISTOPHER GRECO		26 NORTH MYRTLE AVENUE SPRING VALLEY NY 10956	02/18/2021	02/18/2026
DOL	DOL		CHRISTOPHER J MAINI		19 CAITLIN AVE JAMESTOWN NY 14701	09/17/2018	09/17/2023
DOL	DOL		CHRISTOPHER PAPASTEFANOU A/K/A CHRIS PAPASTEFANOU		1445 COMMERCE AVE BRONX NY 10461	05/30/2019	05/30/2024
DOL	DOL	****1927	CONSTRUCTION PARTS WAREHOUSE, INC.	CPW	5841 BUTTERNUT ROAD EAST SYRACUSE NY 13057	09/12/2018	09/12/2023
DOL	DOL		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	****2524	CSI ELECTRICAL & MECHANICAL INC		42-32 235TH ST DOUGLASTON NY 11363	01/14/2019	01/14/2024
DOL	DOL	****7619	DANCO CONSTRUCTION UNLIMITED INC.		485 RAFT AVENUE HOLBROOK NY 11741	10/19/2021	10/19/2026
DOL	DOL		DANIEL ROBERT MCNALLY		7 GREENFIELD DRIVE WARWICK NY 10990	03/25/2022	03/25/2027
DOL	DOL		DARIAN L COKER		2610 SOUTH SALINA ST SUITE 2CSYRACUSE NY 13205	09/17/2020	09/17/2025
DOL	DOL		DARIAN L COKER		2610 SOUTH SALINA ST SUITE 2CSYRACUSE NY 13205	12/04/2018	12/04/2023
DOL	NYC		DAVID WEINER		14 NEW DROP LANE 2ND FLOORSTATEN ISLAND NY 10306	11/14/2019	11/14/2024
DOL	DOL		DELPHI PAINTING & DECORATING CO INC		1445 COMMERCE AVE BRONX NY 10461	05/30/2019	05/30/2024
DOL	DOL	****5175	EAGLE MECHANICAL AND GENERAL CONSTRUCTION LLC		11371 RIDGE RD WOLCOTT NY 14590	02/03/2020	02/03/2025
DOL	AG		EDWIN HUTZLER		23 NORTH HOWELLS RD BELLPORT NY 11713	08/04/2021	08/04/2026
DOL	DA		EDWIN HUTZLER		2375 RAYNOR STREET RONKONKOMA NY 11779	08/04/2021	08/04/2026
DOL	DOL	*****0780	EMES HEATING & PLUMBING CONTR		5 EMES LANE MONSEY NY 10952	01/20/2002	01/20/3002

DOL	NYC	****5917	EPOCH ELECTRICAL, INC		97-18 50TH AVE	04/19/2018	04/19/2024
DOL	DOL		FAIGY LOWINGER		CORONA NY 11368 11 MOUNTAIN RD	03/20/2019	03/20/2024
DOL	DOL		FAIGT LOWINGER		28 VAN BUREN DRMONROE NY 10950	03/20/2019	03/20/2024
DOL	DOL		FRANK BENEDETTO		19 CATLIN AVE JAMESTOWN NY 14701	09/17/2018	09/17/2023
DOL	DOL	****4722	FRANK BENEDETTO AND CHRISTOPHER J MAINI	B & M CONCRETE	19 CAITLIN AVE JAMESTOWN NY 14701	09/17/2018	09/17/2023
DOL	DA		FREDERICK HUTZLER		2375 RAYNOR STREET RONKONKOMA NY 11779	08/04/2021	08/04/2026
DOL	NYC	*****6616	G & G MECHANICAL ENTERPRISES, LLC.		1936 HEMPSTEAD TURNPIKE EAST MEDOW NY 11554	11/29/2019	11/29/2024
DOL	DOL		GABRIEL FRASSETTI			04/10/2019	04/10/2024
DOL	NYC		GAYATRI MANGRU		21 DAREWOOD LANE VALLEY STREAM NY 11581	09/17/2020	09/17/2025
DOL	DOL		GEOFF CORLETT		415 FLAGGER AVE #302STUART FL 34994	10/31/2018	10/31/2023
DOL	DA		GEORGE LUCEY		150 KINGS STREET BROOKLYN NY 11231	01/19/1998	01/19/2998
DOL	DOL		GIGI SCHNECKENBURGER		261 MILL RD EAST AURORA NY 14052	05/29/2019	05/29/2024
DOL	NYC	****3164	GLOBE GATES INC	GLOBAL OVERHEAD DOORS	405 BARRETTO ST BRONX NY 10474	05/31/2018	05/31/2023
DOL	DOL		HANS RATH		24 ELDOR AVENUE NEW CITY NY 10956	02/03/2020	02/03/2025
DOL	DOL		HERBERT CLEMEN		42 FOWLER AVENUE CORTLAND MANOR NY 10567	01/24/2023	01/24/2028
DOL	DOL		HERBERT CLEMEN		42 FOWLER AVENUE CORTLAND MANOR NY 10567	10/25/2022	10/25/2027
DOL	DOL	****5131	INTEGRITY MASONRY, INC.	M&R CONCRETE	722 8TH AVE WATERVLIET NY 12189	06/05/2018	06/05/2023
DOL	DOL		IRENE KASELIS		32 PENNINGTON AVE WALDWICK NJ 07463	05/30/2019	05/30/2024
DOL	DOL	*****9211	J. WASE CONSTRUCTION CORP.		8545 RT 9W ATHENS NY 12015	03/09/2021	03/09/2026
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	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	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	10/25/2022	10/25/2027
DOL	DOL	****1147	J.R.N. CONSTRUCTION, LLC		531 THIRD ST ALBANY NY 12206	12/22/2022	12/22/2027
DOL	DOL	****1147	J.R.N. CONSTRUCTION, LLC		531 THIRD ST ALBANY NY 12206	10/25/2022	10/25/2027
DOL	DOL		JAMES C. DELGIACCO		722 8TH AVE WATERVLIET NY 12189	06/05/2018	06/05/2023
DOL	DOL		JAMES J. BAKER		7901 GEE ROAD CANASTOTA NY 13032	08/17/2021	08/17/2026
DOL	DOL		JAMES LIACONE		9365 WASHINGTON ST LOCKPORT IL 60441	07/23/2018	07/23/2023
DOL	DOL		JAMES RACHEL		9365 WASHINGTON ST LOCKPORT IL 60441	07/23/2018	07/23/2023
DOL	DOL		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	****5368	JCH MASONRY & LANDSCAPING INC.		35 CLINTON AVE OSSINING NY 10562	09/12/2018	09/12/2023
DOL	DOL	****2435	JEFFEL D. JOHNSON	JMJ7 AND SON	5553 CAIRNSTRAIL CLAY NY 13041	11/21/2022	11/21/2027
DOL	DOL		JEFFEL JOHNSON ELITE CARPENTER REMODEL AND CONSTRUCTION		C2 EVERGREEN CIRCLE LIVERPOOL NY 13090	11/21/2022	11/21/2027
DOL	DOL	****2435	JEFFREY M. JOHNSON	JMJ7 AND SON	5553 CAIRNS TRAIL CLAY NY 13041	11/21/2022	11/21/2027
DOL	NYC		JENNIFER GUERRERO		1936 HEMPSTEAD TURNPIKE EAST MEADOW NY 11554	11/29/2019	11/29/2024
DOL	DOL		JIM PLAUGHER		17613 SANTE FE LINE ROAD WAYNEFIELD OH 45896	07/16/2021	07/16/2026
DOL	DOL		JMJ7 & SON CONSTRUCTION, LLC		5553 CAIRNS TRAIL LIVERPOOL NY 13041	11/21/2022	11/21/2027
DOL	DOL		JMJ7 AND SONS CONTRACTORS		5553 CAIRNS TRAIL CLAY NY 13041	11/21/2022	11/21/2027
DOL	DOL		JMJ7 CONTRACTORS		7014 13TH AVENUE BROOKLYN NY 11228	11/21/2022	11/21/2027
DOL	DOL		JMJ7 CONTRACTORS AND SONS		5553 CAIRNS TRAIL CLAY NY 13041	11/21/2022	11/21/2027
DOL	DOL		JMJ7 CONTRACTORS, LLC		5553 CAIRNS TRAIL CLAY NY 13041	11/21/2022	11/21/2027
DOL	DOL		JOHN GOCEK		14B COMMERCIAL AVE ALBANY NY 12065	11/14/2019	11/14/2024
DOL	DOL		JOHN LUCIANO			05/14/2018	05/14/2023
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		JON E DEYOUNG		261 MILL RD P.O BOX 296EAST AURORA NY 14052	05/29/2019	05/29/2024
DOL	DOL		JORGE RAMOS		8970 MIKE GARCIA DR MANASSAS VA 20109	07/16/2021	07/16/2026
DOL	DOL		JORI PEDERSEN		415 FLAGER AVE #302STUART FL 34994	10/31/2018	10/31/2023
DOL	DOL		JOSE CHUCHUCA		35 CLINTON AVE OSSINING NY 10562	09/12/2018	09/12/2023
DOL	DOL		JOY MARTIN		2404 DELAWARE AVE NIGARA FALLS NY 14305	09/12/2018	09/12/2023
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	*****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		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		JULIUS AND GITA BEHREND		5 EMES LANE MONSEY NY 10952	11/20/2002	11/20/3002
DOL	DOL		KARIN MANGIN		796 PHELPS ROAD FRANKLIN LAKES NJ 07417	12/01/2020	12/01/2025
DOL	DOL		KATE E. CONNOR		7088 INTERSTATE ISLAND RD SYRACUSE NY 13209	03/31/2021	03/31/2026
DOL	DOL	****2959	KELC DEVELOPMENT, INC		7088 INTERSTATE ISLAND RD SYRACUSE NY 13209	03/31/2021	03/31/2026
DOL	DOL		KIMBERLY F. BAKER		7901 GEE ROAD CANASTOTA NY 13032	08/17/2021	08/17/2026
DOL	DOL	****3490	L & M CONSTRUCTION/DRYWALL INC.		1079 YONKERS AVE YONKERS NY 10704	08/07/2018	08/07/2023

DOL	DA	*****8816	LAKE CONSTRUCTION AND DEVELOPMENT CORPORATION		150 KINGS STREET BROOKLYN NY 11231	08/19/1998	08/19/2998
DOL	DOL		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	AG	****3291	LINTECH ELECTRIC, INC.		3006 TILDEN AVE BROOKLYN NY 11226	02/16/2022	02/16/2027
DOL	DA	****4460	LONG ISLAND GLASS & STOREFRONTS, LLC		4 MANHASSET TRL RIDGE NY 11961	09/06/2018	09/06/2023
DOL	DOL		LOUIS A. CALICCHIA		1223 PARK ST. PEEKSKILL NY 10566	05/17/2021	05/17/2026
DOL	NYC		LUBOMIR PETER SVOBODA		27 HOUSMAN AVE STATEN ISLAND NY 10303	12/26/2019	12/26/2024
DOL	NYC		M & L STEEL & ORNAMENTAL IRON CORP.		27 HOUSMAN AVE STATEN ISLAND NY 10303	12/26/2019	12/26/2024
DOL	DOL	****2196	MAINSTREAM SPECIALTIES, INC.		11 OLD TOWN RD SELKIRK NY 12158	02/02/2021	02/02/2026
DOL	DA		MANUEL P TOBIO		150 KINGS STREET BROOKLYN NY 14444	08/19/1998	08/19/2998
DOL	DA		MANUEL TOBIO		150 KINGS STREET BROOKLYN NY 11231	08/19/1998	08/19/2998
DOL	NYC		MAREK FABIJANOWSKI		50 MAIN ST WHITE PLAINS NY 10606	01/04/2019	01/04/2024
DOL	NYC		MARIA NUBILE		84-22 GRAND AVENUE ELMHURST NY 11373	03/10/2020	03/10/2025
DOL	DOL		MASONRY CONSTRUCTION, INC.		442 ARMONK RD MOUNT KISCO NY 10549	06/12/2018	06/12/2023
DOL	DOL	****3333	MASONRY INDUSTRIES, INC.		442 ARMONK RD MOUNT KISCO NY 10549	06/12/2018	06/12/2023
DOL	DOL		MATTHEW P. KILGORE		4156 WILSON ROAD EAST TABERG NY 13471	03/26/2019	03/26/2024
DOL	DOL		MAURICE GAWENO		442 ARMONK RD MOUNT KISCO NY 10549	06/12/2018	06/12/2023
DOL	DOL		MICHAEL LENIHAN		1079 YONKERS AVE UNIT 4YONKERS NY 10704	08/07/2018	08/07/2023
DOL	DOL	****4829	MILESTONE ENVIRONMENTAL CORPORATION		704 GINESI DRIVE SUITE 29MORGANVILLE NJ 07751	04/10/2019	04/10/2024
DOL	NYC	****9926	MILLENNIUM FIRE PROTECTION, LLC		325 W. 38TH STREET SUITE 204NEW YORK NY 10018	11/14/2019	11/14/2024
DOL	NYC	****0627	MILLENNIUM FIRE SERVICES, LLC		14 NEW DROP LNE 2ND FLOORSTATEN ISLAND NY 10306	11/14/2019	11/14/2024
DOL	DOL	****1320	MJC MASON CONTRACTING, INC.		42 FOWLER AVENUE CORTLAND MANOR NY 10567	10/25/2022	10/25/2027
DOL	DOL	****1320	MJC MASON CONTRACTING, INC.		42 FOWLER AVENUE CORTLAND MANOR NY 10567	01/24/2023	01/24/2028
DOL	NYC		MUHAMMED A. HASHEM		524 MCDONALD AVENUE BROOKLYN NY 11218	09/17/2020	09/17/2025
DOL	NYC		NAMOW, INC.		84-22 GRAND AVENUE ELMHURST NY 11373	03/10/2020	03/10/2025
DOL	DA	****9786	NATIONAL INSULATION & GC CORP		180 MILLER PLACE HICKSVILLE NY 11801	12/12/2018	12/12/2023
DOL	DOL	****3684	NATIONAL LAWN SPRINKLERS, INC.		645 N BROADWAY WHITE PLAINS NY 10603	05/14/2018	05/14/2023
DOL	NYC		NAVIT SINGH		402 JERICHO TURNPIKE NEW HYDE PARK NY 11040	08/10/2022	08/10/2027
DOL	DOL		NICHOLE E. FRASER A/K/A NICHOLE RACE		3469 STATE RT. 69 PERISH NY 13131	03/01/2022	03/01/2027
DOL	DOL		NICHOLE E. FRASER A/K/A NICHOLE RACE		3469 STATE RT. 69 PERISH NY 13131	11/15/2022	11/15/2027
DOL	DOL		NICHOLE E. FRASER A/K/A NICHOLE RACE		3469 STATE RT. 69 PERISH NY 13131	09/29/2021	09/29/2026
DOL	DOL		NICHOLE E. FRASER A/K/A NICHOLE RACE		3469 STATE RT. 69 PERISH NY 13131	02/09/2022	02/09/2027
DOL	DOL	****7429	NICOLAE I. BARBIR	BESTUCCO CONSTRUCTI ON, INC.	444 SCHANTZ ROAD ALLENTOWN PA 18104	09/17/2020	09/17/2025
DOL	NYC	****5643	NYC LINE CONTRACTORS, INC.		402 JERICHO TURNPIKE NEW HYDE PARK NY 11040	08/10/2022	08/10/2027
DOL	DOL		PAULINE CHAHALES		935 S LAKE BLVD MAHOPAC NY 10541	03/02/2021	03/02/2026

DOL	DOL		PETER STEVENS		11 OLD TOWN ROAD SELKIRK NY 12158	02/02/2021	02/02/2026
DOL	DOL		PETER STEVENS		8269 21ST ST BELLEROSE NY 11426	12/22/2022	12/22/2027
DOL	DOL	*****0466	PRECISION BUILT FENCES, INC.		1617 MAIN ST PEEKSKILL NY 10566	03/03/2020	03/03/2025
DOL	NYC		RASHEL CONSTRUCTION CORP		524 MCDONALD AVENUE BROOKLYN NY 11218	09/17/2020	09/17/2025
DOL	DOL	*****1068	RATH MECHANICAL CONTRACTORS, INC.		24 ELDOR AVENUE NEW CITY NY 10956	02/03/2020	02/03/2025
DOL	DOL	****2633	RAW POWER ELECTRIC CORP.		3 PARK CIRCLE MIDDLETOWN NY 10940	07/11/2022	07/11/2027
DOL	DA	****7559	REGAL CONTRACTING INC.		24 WOODBINE AVE NORTHPORT NY 11768	10/01/2020	10/01/2025
DOL	DOL	****9148	RICH T CONSTRUCTION		107 WILLOW WOOD LANE CAMILLUS NY 13031	11/13/2018	11/13/2023
DOL	DOL		RICHARD MACONE		8617 THIRD AVE BROOKLYN NY 11209	09/17/2018	09/17/2023
DOL	DOL		RICHARD REGGIO		1617 MAIN ST PEEKSKILL NY 10566	03/03/2020	03/03/2025
DOL	DOL	*****9148	RICHARD TIMIAN	RICH T CONSTRUCTI ON	108 LAMONT AVE SYRACUSE NY 13209	10/16/2018	10/16/2023
DOL	DOL		RICHARD TIMIAN JR.		108 LAMONT AVE SYRACUSE NY 13209	10/16/2018	10/16/2023
DOL	DOL		RICHARD TIMIAN JR.		108 LAMONT AVE SYRACUSE NY 13209	11/13/2018	11/13/2023
DOL	DOL		ROBBYE BISSESAR		89-51 SPRINGFIELD BLVD QUEENS VILLAGE NY 11427	01/11/2003	01/11/3003
DOL	DOL		ROBERT A. VALERINO		3841 LANYARD COURT NEW PORT RICHEY FL 34652	07/09/2019	07/09/2024
DOL	DOL		ROBERT BRUNO		5 MORNINGSIDE DRIVE AUBURN NY 13021	05/28/2019	05/28/2024
DOL	DOL		RODERICK PUGH		404 OAK ST SUITE 101SYRACUSE NY 13203	07/23/2018	07/23/2023
DOL	DOL	****4880	RODERICK PUGH CONSTRUCTION INC.		404 OAK ST SUITE 101SYRACUSE NY 13203	07/23/2018	07/23/2023
DOL	DOL		ROMEO WARREN		161 ROBYN RD MONROE NY 10950	07/11/2022	07/11/2027
DOL	DOL		RONALD MESSEN		14B COMMERCIAL AVE ALBANY NY 12065	11/14/2019	11/14/2024
DOL	DOL		ROSEANNE CANTISANI			06/12/2018	06/12/2023
DOL	DOL	****7172	RZ & AL INC.		198 RIDGE AVENUE VALLEY STREAM NY 11581	06/06/2022	06/06/2027
DOL	DOL	****1365	S & L PAINTING, INC.		11 MOUNTAIN ROAD P.O BOX 408MONROE NY 10950	03/20/2019	03/20/2024
DOL	DOL	****7730	S C MARTIN GROUP INC.		2404 DELAWARE AVE NIAGARA FALLS NY 14305	09/12/2018	09/12/2023
DOL	DOL		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	NYC	****0349	SAM WATERPROOFING INC		168-42 88TH AVENUE APT.1 AJAMAICA NY 11432	11/20/2019	11/20/2024
DOL	NYC	****1130	SCANA CONSTRUCTION CORP.		863 WASHINGTON STREET FRANKLIN SQUARE NY 11010	03/10/2020	03/10/2025
DOL	DOL	****2045	SCOTT DUFFIE	DUFFIE'S ELECTRIC, INC.	P.O BOX 111 CORNWALL NY 12518	03/03/2020	03/03/2025
DOL	DOL		SCOTT DUFFIE		P.O BOX 111 CORNWALL NY 12518	03/03/2020	03/03/2025
DOL	NYC	****6597	SHAIRA CONSTRUCTION CORP.		421 HUDSON STREET SUITE C5NEW YORK NY 10014	02/20/2019	02/20/2024

DOL	DOL		SHANE NOLAN		9365 WASHINGTON ST LOCKPORT IL 60441	07/23/2018	07/23/2023
DOL	DOL		SHULEM LOWINGER		11 MOUNTAIN ROAD 28 VAN BUREN DRMONROE NY 10950	03/20/2019	03/20/2024
DOL	DOL	*****0816	SOLAR ARRAY SOLUTIONS, LLC		9365 WASHINGTON ST LOCKPORT IL 60441	07/23/2018	07/23/2023
DOL	DOL	*****0440	SOLAR GUYS INC.		8970 MIKE GARCIA DR MANASSAS VA 20109	07/16/2021	07/16/2026
DOL	NYC		SOMATIE RAMSUNAHAI		115-46 132ND ST SOUTH OZONE PARK NY 11420	09/17/2020	09/17/2025
DOL	DOL	*****2221	SOUTH BUFFALO ELECTRIC, INC.		1250 BROADWAY ST BUFFALO NY 14212	02/03/2020	02/03/2025
DOL	NYC	*****3661	SPANIER BUILDING MAINTENANCE CORP		200 OAK DRIVE SYOSSET NY 11791	03/14/2022	03/14/2027
DOL	DOL		STANADOS KALOGELAS		485 RAFT AVENUE HOLBROOK NY 11741	10/19/2021	10/19/2026
DOL	DOL	****3496	STAR INTERNATIONAL INC		89-51 SPRINGFIELD BLVD QUEENS VILLAGE NY 11427	08/11/2003	08/11/3003
DOL	DOL	****6844	STEAM PLANT AND CHX SYSTEMS INC.		14B COMMERCIAL AVENUE ALBANY NY 12065	11/14/2019	11/14/2024
DOL	DOL	*****9933	STEED GENERAL CONTRACTORS, INC.		1445 COMMERCE AVE BRONX NY 10461	05/30/2019	05/30/2024
DOL	DOL	*****9528	STEEL-IT, LLC.		17613 SANTE FE LINE ROAD WAYNESFIELD OH 45896	07/16/2021	07/16/2026
DOL	DOL		STEFANOS PAPASTEFANOU, JR. A/K/A STEVE PAPASTEFANOU, JR.		256 WEST SADDLE RIVER RD UPPER SADDLE RIVER NJ 07458	05/30/2019	05/30/2024
DOL	DOL		STEVE TATE		415 FLAGER AVE #302STUART FL 34994	10/31/2018	10/31/2023
DOL	DOL		STEVEN MARTIN		2404 DELWARE AVE NIAGARA FALLS NY 14305	09/12/2018	09/12/2023
DOL	DOL	*****3800	SUBURBAN RESTORATION CO. INC.		5-10 BANTA PLACE FAIR LAWN PLACE NJ 07410	03/29/2021	03/29/2026
DOL	DOL	*****1060	SUNN ENTERPRISES GROUP, LLC		370 W. PLEASANTVIEW AVE SUITE 2.329HACKENSACK NJ 07601	02/11/2019	02/11/2024
DOL	DOL	*****9150	SURGE INC.		8269 21ST STREET BELLEROSE NY 11426	12/22/2022	12/22/2027
DOL	DOL		SYED RAZA		198 RIDGE AVENUE NY 11581	06/06/2022	06/06/2027
DOL	DOL	*****8209	SYRACUSE SCALES, INC.		158 SOLAR ST SYRACUSE NY 13204	01/07/2019	01/07/2024
DOL	DOL		TERRY THOMPSON		11371 RIDGE RD WOLCOTT NY 14590	02/03/2020	02/03/2025
DOL	DOL	*****9733	TERSAL CONSTRUCTION SERVICES INC		107 FACTORY AVE P.O BOX 11070SYRACUSE NY 13208	07/16/2021	07/16/2026
DOL	DOL		TERSAL CONTRACTORS, INC.		221 GARDNER RD P.O BOX 14POMPEI NY 13138	07/16/2021	07/16/2026
DOL	DOL		TERSAL DEVELOPMENT CORP.		1935 TEALL AVENUE SYRACUSE NY 13206	07/16/2021	07/16/2026
DOL	DOL		TEST		P.O BOX 123 ALBANY NY 12204	05/20/2020	05/20/2025
DOL	DOL	****6789	TEST1000		P.O BOX 123 ALBANY NY 12044	03/01/2021	03/01/2026
DOL	DOL	****5766	THE COKER CORPORATION	COKER CORPORATIO N	2610 SOUTH SALINA ST SUITE 14SYRACUSE NY 13205	12/04/2018	12/04/2023
DOL	DOL	*****5766	THE COKER CORPORATION	COKER CORPORATIO N	2610 SOUTH SALINA ST SUITE 14SYRACUSE NY 13205	09/17/2020	09/17/2025
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	*****6392	V.M.K CORP.		8617 THIRD AVE BROOKLYN NY 11209	09/17/2018	09/17/2023
DOL	DOL	****6418	VALHALLA CONSTRUCTION, LLC.		796 PHLEPS ROAD FRANKLIN LAKES NJ 07417	12/01/2020	12/01/2025
DOL	NYC	*****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		VICTOR ALICANTI		42-32 235TH ST DOUGLASTON NY 11363	01/14/2019	01/14/2024
DOL	NYC		VIKTAR PATONICH		2630 CROPSEY AVE BROOKLYN NY 11214	10/30/2018	10/30/2023
DOL	DOL		VIKTORIA RATH		24 ELDOR AVENUE NEW CITY NY 10956	02/03/2020	02/03/2025
DOL	NYC	*****3673	WALTERS AND WALTERS, INC.		465 EAST AND THIRD ST MT. VERNON NY 10550	09/09/2019	09/09/2024
DOL	DOL	****3296	WESTERN NEW YORK CONTRACTORS, INC.		3841 LAYNARD COURT NEW PORT RICHEY FL 34652	07/09/2019	07/09/2024
DOL	DOL		WHITE PLAINS CARPENTRY CORP		442 ARMONK RD	06/12/2018	06/12/2023
DOL	DOL		WILLIAM 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	****4730	XGD SYSTEMS, LLC	TDI GOLF	415 GLAGE AVE #302STUART FL 34994	10/31/2018	10/31/2023

SECTION 011000 - SUMMARY

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

- 1. Project information.
- 2. Work covered by Contract Documents.
- 3. Multiple Work Packages.
- 4. Work under Owner's separate contracts.
- 5. Future work not part of this Project.
- 6. Owner-furnished/Contractor-installed (OFCI) products.
- 7. Owner-furnished/Owner-installed (OFOI) products.
- 8. Contractor's use of site and premises.
- 9. Work restrictions.
- 10. Specification and Drawing conventions.

B. Related Requirements:

- 1. Volume 2 Section 013529 "Health and Safety" for information pertaining to air quality when moving contaminated soils.
- 2. Section 015000 "Temporary Facilities and Controls" for limitations and procedures governing temporary use of Owner's facilities.
- 3. Volume 2 Section 017419 "Excavated Soil and Construction Waste Management and Disposal" for restrictions for handling contaminated soils.

1.2 PROJECT INFORMATION

A. Project Identification:

Buffalo Outer Harbor Access and Activation Civic Project – Phase 2: Wilkeson Pointe

- 1. Project Location: 225 Fuhrmann Boulevard, Buffalo, NY 14203.
- B. Owner: Erie Canal Harbor Development Corporation (ECHDC).
 - Owner's Representative:
 Mark Wendel, AIA, LEED AP Senior Director of Design
 95 Perry St., Suite 500
 Buffalo, NY 14203
 (716) 846-8220
 mark.wendel@esd.ny.gov

- C. Landscape Architect: Fisher Associates, P.E., L.S., L.A., D.P.C.
 - Landscape Architect's Representative: Zac Rood, RLA, ASLA Project Manager 1001 West Seneca Street, Suite 201

Ithaca, New York 14850

(607) 431-3334

zdr@twm.la

- D. Landscape Architect's Consultants: The Landscape Architect has retained the following design professionals, who have prepared designated portions of the Contract Documents:
 - 1. Civil Engineering: WSP

Representative: Greg Jasinski, PE 50 Lakefront Boulevard, Suite 111 Buffalo, NY 14202 (716) 362-9165 g.jasinski@wsp.com

2. Architect: Chiang | O'Brien Architects

Representative:

Andrew Rappaport, AIA, LEED AP BD+C 217 North Aurora Street Ithaca, New York 14850 (607) 241-0244 ext. 103mailto:mdc@twm.la andrew@chiangobrien.com

3. Structural Engineering: WSP

Representative: Joseph Fonzi, PE 50 Lakefront Boulevard, Suite 111 Buffalo, NY 14202 (716) 362-9163 j.fonzi@wsp.com

4. Mechanical, Electrical, Plumbing: Encorus Group

Representative: Evan Krug 23 Mechanic Street Springville, NY 14141 (716) 592-3980 ext. 145 ekrug@encorus.com

5. Environmental Design: The LiRo Group

Representative: Stephen Frank 690 Delaware Avenue Buffalo, NY 14209 (716) 882-5476 ext. 423 franks@liro.com

6. Lighting Consultant: Tillett Lighting Design Associates, Inc

Representative: Janet Garwood 15 Maiden Lane, Suite 508, New York, NY 10038 (347) 970-8841 janet@tillettlighting.com

7. Habitat Restoration: Biohabitats, Inc. Great Lakes Bioregion

Representative: Kevin Grieser 2026 Murray Hill Road, Suite 102 Cleveland, OH 44106 (216) 539-7852 kgrieser@biohabitats.com

- E. Construction Manager: Turner Construction Company
 - Construction Manager Representative:
 W. Mark Dowling
 50 Lakefront Blvd., Suite 200
 Buffalo, NY 14202
 (716) 949-7937
 wdowling@tcco.com
 - 2. Construction Manager has been engaged for this Project to serve as an advisor to Owner and to provide assistance in administering the Contract for construction between Owner and each Contractor, according to a separate contract between Owner and Construction Manager.
- F. Web-Based Project Software: Project software will be used for purposes of managing communication and documents during the construction stage.
 - 1. See Section 013100 "Project Management and Coordination." for requirements for using web-based Project software.

1.3 WORK COVERED BY CONTRACT DOCUMENTS

- A. The Work of Project is defined by the Contract Documents and consists of the following:
 - 1. Modification of an existing 95,500 square foot cold storage warehouse along the lake edge into an outdoor pavilion and event venue, including removal of existing wall and roof assemblies, retainage of the slab and structure, creation of a new stage and canopy, and associated utilities extensions and site development for outdoor amphitheater and passive recreation, and other Work indicated in the Contract Documents.

B. Type of Contract:

1. Project will be constructed under coordinated, concurrent multiple contracts. See Section 011200 "Multiple Contract Summary" for a list of multiple contracts, a description of work included under each of the multiple contracts, and the responsibilities of Project coordinator.

1.4 WORK UNDER SEPARATE CONTRACTS

- A. General: Cooperate fully with separate contractors so work on those contracts may be carried out smoothly, without interfering with or delaying Work under this Contract or other contracts. Coordinate the Work of this Contract with work performed under separate contracts.
- B. Concurrent Work: Owner will award separate contract(s) for the following construction operations at Project site. Those operations will be conducted simultaneously with work under this Contract.
 - 1. Site Work
 - 2. General Trades
 - 3. Mechanical Trades
 - 4. Electrical
- C. Future Work Not Part of this Contract: The Contract Documents include requirements that will allow Owner to carry out future work following completion of this Project.

1.5 OWNER-FURNISHED/CONTRACTOR-INSTALLED (OFCI) PRODUCTS

- A. Owner's Responsibilities: Owner will furnish products indicated and perform the following, as applicable:
 - 1. Provide to Contractor Owner-reviewed Product Data, Shop Drawings, and Samples.
 - 2. Provide for delivery of Owner-furnished products to Project site.
 - 3. Upon delivery, inspect, with Contractor present, delivered items.
 - a. If Owner-furnished products are damaged, defective, or missing, arrange for replacement.
 - 4. Obtain manufacturer's inspections, service, and warranties.
 - 5. Inform Contractor of earliest available delivery date for Owner-furnished products.

- B. Contractor's Responsibilities: The Work includes the following, as applicable:
 - 1. Designate delivery dates of Owner-furnished products in Contractor's construction schedule, utilizing Owner-furnished earliest available delivery dates.
 - 2. Review Owner-reviewed Product Data, Shop Drawings, and Samples, noting discrepancies and other issues in providing for Owner-furnished products in the Work.
 - 3. Receive, unload, handle, store, protect, and install Owner-furnished products.
 - 4. Make building services connections for Owner-furnished products.
 - 5. Protect Owner-furnished products from damage during storage, handling, and installation and prior to Substantial Completion.
 - 6. Repair or replace Owner-furnished products damaged following receipt.
- C. Owner-Furnished/Contractor-Installed (OFCI) Products:
 - 1. As per the Drawings.

1.6 OWNER-FURNISHED/OWNER-INSTALLED (OFOI) PRODUCTS

- A. The Owner will furnish and install products indicated.
- B. Owner-Furnished/Owner-Installed (OFOI) Products:
 - 1. As per the Drawings.

1.7 CONTRACTOR'S USE OF SITE AND PREMISES

- A. Restricted Use of Site: Contractor shall have limited use of Project site for construction operations as indicated on Drawings by the Contract limits and as indicated by requirements of this Section.
- B. Limits on Use of Site: Limit use of Project site to areas within the Contract limits indicated. Do not disturb portions of Project site beyond areas in which the Work is indicated.
 - 1. Limits on Use of Site: Adjacent area known as the "Great Lawn" and areas of the Outer Harbor trails system are to remain open and operational during Construction. Access through the Construction area must be maintained during the summer months.
 - 2. Driveways, Walkways, and Entrances: Keep driveways loading areas, and entrances serving premises clear and available to Owner, Owner's employees, and emergency vehicles at all times. Do not use these areas for parking or for storage of materials.
- C. Condition of Existing Grounds: Maintain portions of existing grounds, landscaping, and hardscaping affected by construction operations throughout construction period. Repair damage caused by construction operations.

1.8 WORK RESTRICTIONS

- A. Comply with restrictions on construction operations.
 - 1. Comply with limitations on use of public streets, work on public streets, rights of way, and other requirements of authorities having jurisdiction.

- B. Existing Utility Interruptions: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted under the following conditions and then only after providing temporary utility services according to requirements indicated:
 - 1. Notify Construction Manager and Owner not less than three days in advance of proposed utility interruptions.
 - 2. Obtain Construction Manager's and Owner's written permission before proceeding with utility interruptions.
- C. Noise, Vibration, Dust, and Odors: Coordinate operations that may result in high levels of noise and vibration, dust, odors, or other disruption to Owner occupancy with Owner.
 - 1. Notify Construction Manager and Owner not less than two days in advance of proposed disruptive operations.
 - 2. Obtain Construction Manager's and Owner's written permission before proceeding with disruptive operations.
- D. Smoking and Controlled Substance Restrictions: Use of tobacco products, alcoholic beverages, and other controlled substances on Project site is not permitted.

1.9 SPECIFICATION AND DRAWING CONVENTIONS

- A. Specification Content: The Specifications use certain conventions for the style of language and the intended meaning of certain terms, words, and phrases when used in particular situations. These conventions are as follows:
 - 1. Imperative mood and streamlined language are generally used in the Specifications. The words "shall," "shall be," or "shall comply with," depending on the context, are implied where a colon (:) is used within a sentence or phrase.
 - 2. Text Color: Text used in the Specifications, including units of measure, manufacturer and product names, and other text may appear in multiple colors or underlined as part of a hyperlink; no emphasis is implied by text with these characteristics.
 - 3. Hypertext: Text used in the Specifications may contain hyperlinks. Hyperlinks may allow for access to linked information that is not residing in the Specifications. Unless otherwise indicated, linked information is not part of the Contract Documents.
 - 4. Specification requirements are to be performed by Contractor unless specifically stated otherwise.
- B. Division 00 Contracting Requirements: General provisions of the Contract, including General and Supplementary Conditions, apply to all Sections of the Specifications.
- C. Division 01 General Requirements: Requirements of Sections in Division 01 apply to the Work of all Sections in the Specifications.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 011000

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SECTION 011100 SPECIAL PROVISIONS - ALL CONTRACTS

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1.0 **DEFINITIONS**

- A.) The terms "Prime Contractor", "Contractor" or "Subcontractor" shall mean the entity, which has contracted to perform a portion of the work; the successful bidder to whom the contract has been awarded from the Owner.
- B.) The term "Sub-Subcontractor" or "Sub-Tiers" shall mean anyone hired by a subcontractor to perform a portion(s) of their contracted work. Sub-subcontractors do not hold direct contracts with the Owner.
- C.) "CM" Construction Manager
- D.) "Furnish" Purchase and deliver to the project site complete with every necessary accessory and support, as well as any surcharges as may be required to assure that purchased items are free of all liens, claims or encumbrances.
- E.) "Install" Unload at the delivery point at the site and perform every operation necessary to establish secure mounting and correct operation at the proper location in the project, all as part of the work.
- F.) "Provide" Furnish and install.
- G.) "Contract Documents" executed contractual agreement with the Owner and the referenced drawings, specifications and clarification information as issued by La Bella Associates. Additionally, released and approved change orders shall become part of the Contract Documents.
- H.) Reference "Definitions and Abbreviations" in Section 014200 for further information

2.0 GENERAL PROJECT DESCRIPTION & NARRATIVE

2.1 <u>Project Description and Narrative</u>

The project is located at 901 Fuhrmann Blvd. Buffalo New York 14203. The project consists of a new restroom building and a small restaurant/concession building including kitchen and serving equipment. Concrete sidewalks, stairs, ramps, and walk-way approaches around the buildings. There is an exterior observation/picnic area deck with a combination sand beach and seating area. The space will receive a new entry drive and parking area. Landscaping

includes a large amount of excavation/soil relocation, plantings of native trees and plants, landscaping including large stone matching adjacent area around the outer harbor. Walkways and bike paths will be modified and added. Also being added is a very small 9-hole executive golfing area. Mechanical, electrical, and plumbing will be provided to support the buildings. Electrical will also include site lighting for the area.

2.2 <u>Construction / Change Documents</u>

- A) The successful Contractor will receive one account to access electronic versions of the Contract Drawings and Specifications related to this work at the start of their contract. Any revised documents during the performance of this contract that may affect the scope of original contract work will also be issued electronically to the Prime Contractors. Contractor will be required to sign electronic file transfer agreement from project Architects to obtain digital copy of documents. The Contractor shall be responsible for reproducing prints and specifications for their own use, including any subcontractors and vendors used for the purpose of executing their contract work.
- B) The Architect will periodically issue Bulletins, Field Reports, and Request for Information responses, etc.; each Contractor will be responsible to ensure that their personnel are working from the most current release of documents.
- C) The Construction Manager will share a full set of posted documents (Drawings, Spec's, Logistics Plans, RFI's, Bulletins, Submittals, etc.) along with other relevant project related information on the shared electronic site. The shared documents can be accessed via Smart Phone/iPhone, Tablets/iPad, (see section 6.4 for phone/iPad requirements) or PC. These shared documents do not alleviate the Contractors responsibility to work from the most current sent of documents nor do they constitute replacement for submission of "as-built" drawings contractually owed to the Owner. If any discrepancies are found, the Contractor is to notify the Construction Manager immediately.

3.0 INFORMATION REQUIRED BEFORE STARTING WORK

3.1 Detailed Work Plan

Within (10) working days after Notice to Proceed, each successful Prime Contractor shall submit a detailed work plan outlining all phases of their work to Construction Manager. At a minimum, this written plan must include:

- A.) A <u>Logistics Plan</u> that describes, in detail, the methods that will be used to perform your scope of work. The plan must identify major equipment that will be used, any temporary utilities that will be required to perform your work, and how materials will be brought on-site and/or how debris will be removed from the building and from the site.
- B.) A List of Long Lead items required for the project will be provided within 2 weeks (10 working days) of award. The actual lead times for these items will be supplied to the CM within 6 weeks after the award date. Refer to section 5 for more detailed scheduling procedures.
- C.) Provide a <u>Submittal Schedule</u> within ten (10) working days of the Notice to Proceed showing a <u>complete listing of all items required by the specifications</u>

including, but not limited to shop-drawings and/or catalog cuts, product data certifications, samples, etc. This schedule must specify the estimated dates of submission, fabrication times, ROJ (Required on Job) dates and the delivery dates required to maintain the Project Schedule.

- D.) A project specific <u>Staffing Plan</u> that identifies who will manage the overall scope of your work for this project. This plan must identify (by name) the individual staff members you will use on the site. Additionally, the work experience resumes of the listed individuals must be submitted. The Contractor shall provide supervisory personnel consistent with the size and complexity of the project, who shall be fully capable of controlling their workers, coordinating work through The Construction Manager, performing in harmony with other trades, and completing work in accordance with the schedule.
- E.) Each Contractor shall furnish a <u>List of Sub-contractors</u>, <u>Sub-subcontractors</u>, <u>Suppliers</u>, and <u>Vendors</u>, which they propose to use on the Project and shall notify the Construction Manager and the Owner of any changes.
- F.) The work shall include the obligation of any Contractor, subcontractors and sub-subcontractors, who bids to perform any portion of the work to visit the site of the proposed work, fully acquaint and familiarize itself with the conditions as they exist and the character of the operations to be carried on under the proposed contract, and make such investigation as it may see fit so that it shall fully understand the facilities, physical conditions and restrictions attending the work under the Contract. Each such Contractor shall also thoroughly examine and become familiar with the Drawings, Specifications and ALL associated Bid Documents.

3.2 <u>Safety Procedures Manual</u>

Prior to beginning any work on site, each Contractor shall submit an OSHA compliant <u>site</u> specific Safety Procedures Manual that incorporates the requirements identified in the Site safety plan in section 8.0. This manual will include the <u>Safety Data Sheets</u> (SDS) for all potentially hazardous substances that will be used in performing the scope of your work. In addition, a <u>site specific Hazardous Substance Survey Form</u> that outlines all of the SDS sheets applicable to this project must be submitted.

3.3 Schedule of Values

No more than (15) working days after Notice to Proceed, the Contractor will submit to Construction Manager a schedule of values for review and approval. This schedule must be submitted on the appropriate AIA Form G-732/CMa and G-703. No payment will be issued until the Schedule of Values is approved. To speed-up the invoicing process, the schedule of values must be broken down by SED number, and building name, with each line item to be broken into labor and material. The Contract total must be broken into a level of detail that may be easily reviewed each month (i.e. by floor, by work category, by area, by materials, etc.). The schedule of values shall include General Condition's line items which will be billed by a % each month based on current project completion. The following values shall be incorporated for each line item:

- 1. Hold 5% Retainage
- 2. Hold 0.5% of the Contract value for Submittals (but no less than \$1,500)
- 3. Hold 1.0% of the Contract value for Safety/DCR (but no less than \$1,500)
- 4. Hold 0.5% of the Contract value for Daily Cleanup (but no less than \$1,500)

- 5. Hold 0.5% of the Contract value for Job Meeting Attendance (but no less than \$1,500)
- 6. Hold 0.5% of the Contract value for O&M Manuals (but no less than \$1,500)
- 7. Hold 0.5% of the Contract value for As-Built Documents (but no less than \$1,500)
- 8. *Bonds and Insurance(s)
- 9. Mobilization and Demobilization
- 10. Temporary Facilities
- 11. Field Supervision
- 12. Final Cleaning
- 13. Breakout each Contract Allowance(s) listed separately

*The Owner will require supporting documentation for proof of Bonds and Insurance costs. Bonds and Insurance(s) line item will not be approved until all backup and/or invoices from the Contractors insurance company substantiating the value of the payment application line item has been confirmed. A percentage billing with no certified backup is not acceptable.

The owner will hold 2X the value of incomplete work for all open work to complete and punchlist items.

NOTE: Compensation for compliance with the Project safety and cleanup rules and jobsite meeting attendance shall be billed in equal monthly payments. Failure to comply and meet the Contract requirements, will result in the loss of that month's payment via a deduct change order.

3.4 <u>Crane Inspection Report</u>

All Contractors whose work includes the use of material or personnel lifting devices must submit a copy of the <u>Annual Crane Inspection Report</u> prior to starting work. The report must conform to either OSHA section 1910.180 or section 1926.550. Note that this is not referring to a Crane Safety Checklist but rather the Annual Crane Inspection Report. If a crane is brought on site without proper documentation or inspection, said crane will be removed at once from the site, with any associated charges borne by the responsible Contractor. A crane lift plan with loads, location of the crane, lift capacity for the crane, distance from center point for picks, etc. per OSHA guidelines. Failure to provide a complete plan will result in the crane not being allowed on site until the plan is submitted.

3.5 Insurance Documents

The Contractor and any Subcontractors shall not begin work on site until a signed contract and proof of insurance has been provided to The Construction Manager. With the sole exception of Worker's Compensation Insurance, all insurances must name, Erie Canal Harbor Development, NYS Office of Parks, Recreation and Historic Preservation, Be Our Guest, Ltd, Trowbridge Wolf Michaels Landscape Architects LLP, and Turner Construction Company as additional insured parties. ECHDC shall be named as Certificate Holder. Limits shall be in accordance with the limits as specified in AIA232, Article 11.

No work may continue and no payments to the Contractor will be made after the expiration date noted on the latest insurance certificate on file.

3.6 <u>Pre-Installation Conference</u>

The Contractor shall arrange for a meeting on site with the Construction Manager Project Superintendent prior to the scheduled start of their work. This meeting will discuss:

- A.) Review progress of other activities and preparations for the activity under consideration, including schedules, safety, submittals, manufacturer's recommendations, weather limitations, substrate acceptability, compatibility problems, and inspection and testing requirements.
- B.) Record significant discussions, agreements, and disagreements of each conference, along with the approved schedule. Distribute the meeting record to everyone concerned. The minutes will verify that the items listed above were discussed, will document the actions taken or required and by whom the action is required. The Contractors are required to review these minutes and submit any objections to The Construction Manager within (3) days. Failure to response within (3) days will constitute acceptance of minutes.
- C.) A list of Contractor key personnel, with address and telephone numbers for emergency calls (both work hours and non-work hours).
- D.) Contractors are expected to be experienced and familiar with the requirements and conditions imposed during the performance of similar work in this area. Some of these requirements are the performing of normal "out-of-sequence" work, and non-continuous work.
- E.) The Contractor shall maintain the progress of his work, consistent with the milestone schedule prepared by The Construction Manager. Failure of the Contractor to maintain such progress shall make the Contractor liable for all costs incurred by Owner as a result of the Contractor's delays including, but not limited to claims by other Contractors and/or penalties imposed by the Owner. In addition, the Contractor is required to provide a recovery schedule within 72 hours of its failure to maintain progress.
- F.) Before commencing any work, consult with The Construction Manager regarding the use of the facility, including but not limited to, roads, walks, ramps, garage, parking areas, storage areas, corridors, stairs, etc., that may be required to prosecute work.
- 3.7 <u>Waiver of Liens</u> Refer to Construction Agreement Article 11. In addition, all Contractors, subcontractors, sub-contractors, vendors, and suppliers shall submit an AIA Partial Waiver of Liens with each and every pay application.

3.8 Communications

Any and all communication with the Architect and/or Owner shall flow through The Construction Manager no exceptions. Contractor is warned that any directives and/or authorizations to perform additional work and or changes without the consent or direction of the Construction Manager will not be accepted and will be at the Contractors own expense.

3.9 Conflicting Documents

If there are any conflicting variance between the Drawings and Specifications (including reference standards) the more stringent shall control. Likewise, in the case of conflict between the General Conditions of the Contract or any modifications thereof and the detailed specification requirements (including reference standards) the more stringent shall control. These Special Provisions and Summary of Work (or "Scope of

Work") are in addition to the plans and specifications and other contract documents prepared by Trowbridge Wolf Michaels Architects.

Drawings and Specifications are cooperative and supplementary. Portions of the Work, which can best be illustrated by the Drawings, are not included in the Specifications and portions best described by Specifications are not depicted on Drawings. In the event of a direct conflict the specification shall override the drawings All items necessary to complete the Work shall be furnished whether written or illustrated.

3.10 Escalation

The Lump Sum price shall be firm for the life of the project and must include any and all escalating expenses or costs. The Unit Prices submitted with the Bid are firm for the life of the project and must include any and all escalating expenses or costs.

3.11 Wage Rates

Within ten (10) working days of the Notice to Proceed, each Contractor shall submit and have approved by The Construction Manager, a complete list of Foremen, Journeymen and Apprentice wage rates for straight and overtime work for each trade corresponding to all subcontractor and sub tier labor to be utilized on the project (see Exhibit E – Labor Rate Worksheet). All labor rate work sheets are to be certified as actual cost and submitted to the Construction Manager for review and approval. Rates shall include actual cost and additional markup for recovery. All insurance rates must include a notarized certification from the insurance company. Once approved, these rates will be the basis for Schedule of Value line items and pricing the labor cost of any and all allowances and changes, including time and material changes. Payment for additional work beyond scope of the contract will not be made if the subcontractor has not provided approved certified rates. Any travel expenses, travel time, etc. not identified in the published rates will not be reimbursed to the Contractor or their tiers in any way by either The Construction Manager or the Owner. Such costs are considered as being included in the Contractor's percentage for overhead and profit. For the purposes of changes ONLY, the certified labor rate sheets for each firm will be adjusted in accordance with the annual union scale wage rate increases or adjustments. NOTE: OH&P is not be included in the certified labor rates.

3.12 MWBE/EEO

All Contractors, Subcontractors and Sub-subcontractors shall comply with all federal, state and local laws and regulations regarding equal employment opportunity. Reference the ECHDC Procurement forms and project specific requirements for MWBE participation. The Owner stresses that it supports the use of minority/women owned businesses and encourages the participation of these businesses on this project.

3.13 Taxes

New York State Tax is not applicable. Taxes are not to be included in part of the project that becomes a permanent part of the facility. The Contractor does however have to pay taxes on tools, machinery, equipment, or other property leased by the Contractor for use in construction of the new facility. A New York State tax exempt letter will be provided by the Owner upon request.

3.14 Preconstruction Photos and Preconstruction Video

Within (15) working days prior to the commencement of work, all Prime Contractors shall provide (2) copies of dated preconstruction photographs from a digital camera to the Construction Manager on USB Jump Drive prior to mobilizing or starting any work. Document all existing conditions. The Contractor shall take photos of all existing structures

(i.e. walls, roofs, windows, sidewalks, pavements, misc. structures, private property dwellings, streets, parking areas, etc...) and any other items necessary to accurately depict existing conditions at each new addition/renovation areas.

4.0 SITE LOGISTICS

4.1 Site Access

Access shall be via the temporary road indicated on the site logistics plan.

Only the Construction Manager has the authority to alter the site logistics for the overall benefit of the project. All Contractors are to be aware of on-going activities surrounding the construction zone and, in some cases, within the construction zone. Access roads, exits and means of egress in general must be kept open and free from materials, equipment, vehicles and debris always.

4.2 Parking

Contractor Parking is permitted in locations as indicated on the site logistics plans.

The Construction Manager Project Superintendent will be solely responsible for making any modifications to the above requirements.

4.3 Deliveries

All Deliveries must be scheduled and coordinated with The Construction Manager's Superintendent AT LEAST 48-HOURS IN ADVANCE. Contractors must have one or more employees present (and any necessary equipment) at the time of delivery arrival, to receive, unload and distribute all deliveries. Unscheduled or out-of-sequence deliveries may be turned away by Construction Manager's Superintendent. No deliveries should be attempted in any area restricted by the Site Logistics Plan without prior review by the Construction Manager and approval by ECHDC.

4.4 Material and Equipment Storage/Staging – (See Exhibit B, Site Logistics SL-1)

Contractors are to bring only that material which will be used in a reasonable time frame (or just in time deliveries) as determined by The Construction Manager. <u>Storage/Staging of materials and equipment on site shall be permitted only within designated areas as shown on the Site Logistics plan SL-1 and approved in advance by The Construction Manager and final approved by the Owner.</u>

If stored material or equipment obstructs the progress of any portion of the work, they shall be removed or relocated by the Contractor as directed by The Construction Manager without reimbursement of costs. All materials shall be stored in an orderly manner and as specified.

If in the opinion of The Construction Manager, the jobsite cannot accommodate either early or bulk delivery of materials or equipment, the Contractor will make off-site arrangements for safe storage at no additional cost. All required insurance for the offsite storage locations must be obtained by the Contractor. Any payment for stored materials must be in compliance with the requirements of these Special Provisions.

4.5 Equipment Locations

The locations of cranes, mixers, boom trucks, heavy equipment (i.e. bulldozers, excavators, etc.) forklifts, welding machines, generators, field offices, workbenches, cutters, hose lines, etc., must be coordinated with the CM and other contractors. Contractor is responsible to restore any damages to the site and finished landscaping where affected by equipment not coordinated with the CM. Contractor is responsible to restore any damages to the site and finished landscaping where affected by their equipment.

4.6 Security

A security watch man service will NOT be provided. Contractors shall remain solely responsible for any loss or damage to their property or operations or employee's property. The Owner or the Construction Manager will not be liable for any loss or damage.

4.7 <u>Site Fence</u>

For protection of the public, all site fencing installation must be 100% complete prior to any equipment or material mobilization and commencement of any work. <u>The Site Contractor (BP-1) shall provide, MAINTAIN</u>, and ultimately remove the temporary site fencing as indicated on the Site Logistics Plan SL-1. All site fencing is to be provided for the duration of the project per the milestone schedule:

Temporary Driven Post Chain Link Fencing: All temporary post driven fencing shall be 6'-0" high chain link fabric with 1 5/8" diameter (min.) fence posts driven into place. Fence posts shall be erected at 10'-0" O.C. (max.) with the chain link secured with heavy gauge fence wiring (no zip ties will be allowed) to prevent unauthorized movement/removal of fence. The contractor shall designate specific sections of the fencing as "gate entry access" as depicted on the site logistics plan and shall provide additional posts, brackets and hinges, etc. for fully functional gate. All gate posts are to be installed in concrete 24" Diameter by 4' deep footers to maintain gate integrity and shall always remain plumb. Provide chains and padlocks to secure access. All locks shall be keyed alike and welded to chains to prevent loss. Contractor shall maintain and lubricate locks monthly to ensure proper operation. Seven (7) Gate keys for each lock should be provided and turned over to the Construction Manager.

The Site Contractor shall provide continuous maintenance of fencing (i.e.: cleanup and replacement of broken fence panels, fence posts, fasteners, etc. for a complete installation) and immediate repair of fencing if the site's integrity or security is compromised. This includes fencing repairs due to negligent damage by unidentified persons. Any missing or damaged components at the end of the project will be the responsibility of the Site Contractor. The site fencing quantity is limited to the extent shown and noted on the Site Logistics Plans and is to be included in the base bid. The Site Contractor shall also provide the necessary labor to relocate the fencing as required to maintain protection of the public and allow for all work to be completed. The fence shall remain on site until such time the final cleaning and/or final landscaping/seeding, restoration work will be done or as directed by CM.

A) Repairs to the project site fence due to damage by other Prime Contractors (or their subcontractors/suppliers/vendors) shall be back-charged to the responsible party. NO MODIFICATIONS TO THE SITE FENCE SHALL BE PERMITTED WITHOUT

AUTHORIZATION OF THE CONSTRUCTION MANAGER'S PROJECT SUPERINTENDENT IN WRITING.

4.8 Work Outside of Site Fence

Any contract work that must be performed outside the limits of the site project fence must be carefully coordinated ahead of time with The Construction Manager and ECHDC. If work includes any further obstruction of traffic or pedestrians, work must be performed as directed and reviewed by ECHDC and/or The Construction Manager. If the work requires off-hours or overtime accommodating ECHDC constraints, premium time costs will be reimbursed. The Contractor shall provide all flag men and barricades necessary for the safe access and egress around the site relating to their work. Any street closure or traffic permits required for the performance of work outside the limits of the site fence will be the responsibility of the Contractor.

4.9 <u>Site Spoils and Debris</u>

All demolished materials (i.e. concrete, UG piping, storm/sanitary structures, foundations, asphalt paving, rock, demo material, equipment, etc.) shall be immediately trucked off site and legally disposed of.

All existing excess topsoil and subgrade removed during excavation(s) activity is to be stored on site in designated locations. Re-use existing excavated soils/subgrades to meet the grades indicated on site. The storage of unused soils shall be coordinated with the CM and Owner prior to the Contractor stockpiling excess materials.

5.0 CONSTRUCTION SCHEDULE/PHASING (See Special Provisions Exhibit A)

5.1 Schedule Responsibilities (see also 3.1B)

Overall milestone construction and phasing schedule(s) have been provided by The Construction Manager to indicate general activity duration and sequence of work. Upon notice to proceed, each Prime Contractor is to review the schedule(s) and provide feedback with regard to activity duration and sequence of work within ten (10) working days of the Notice to Proceed. A Construction Manager consultant will take the information and put it into a complete project schedule that will be distributed for review by the Prime Contractors. Once contracts are awarded a meeting will be held to review the schedule, get input from the prime contractors and adjust the schedule with everyone's input incorporated. This will be distributed as the working schedule for all contractors to follow. Refer to the scheduling section for the use of 4/6week look ahead meetings and schedules that will be used to track back to the working schedule, adjusting as necessary to remain on track to meet the Contract End Date.

It is the responsibility of the Prime Contractor to indicate any scheduling problems before contract award. There will be no extensions of time to this schedule. PLEASE NOTE: THE END DATE IS DEFINED FOR OWNER OCCUPANCY. EACH CONTRACTOR IS RESPONSIBLE TO HAVE ALL WORK COMPLETE AND 100% CODE COMPLIANT FOR OCCUPANCY BY THIS DATE. THERE WILL BE NO EXCEPTIONS.

Due to the extreme weather and location of the project site, the work for the Outer Harbor project is scheduled with a planned shutdown for onsite construction activities from December 2023 through March 2024. Work is planned to be complete by December 2024.

ALL Prime Contractors and their Subcontractors shall provide within their base bid the cost to facilitate proper winter weather protection and foul weather protection (i.e.: temporary enclosures with plastic over scaffolding for work during rainy days, etc.) required to meet the completion dates defined in the project milestone schedule. Each Prime Contractor is responsible for its own winter and foul weather protection needs. In the event that work is cancelled due to weather conditions, to maintain project schedule it is required that contractors work Saturday(s) to maintain project schedule.

If it becomes apparent that any single activity completion date may not be met, the responsible Contractors shall take some or all of the following actions at no cost to the Owner:

- A) Increase construction manpower in such quantities as will eliminate the backlog of work and put the Project back on schedule.
- B) Increase the number of working hours per shift, shifts per working day, working days per week, or the amount of construction equipment, or any combination of the foregoing as will substantially eliminate the backlog of work and put the Project back on schedule. Additional costs for supervision by the Construction Manager, Architect or Owner for overtime or shiftwork is the Contractor's responsibility.
- C) Reschedule activities to put the Project back on schedule. If a Contractor fails to take any of the above actions within twenty-four (24) hours after receiving written notice, the Construction Manager will take appropriate action involving contractual commitments and performance bonds. Owner retains the right to back charge any Contractor (as determined by the Architect/Engineer and Construction Manager) for any and all costs resulting from scheduling delays. This includes delays to the start or finish dates of other Contractors.

5.2 Expediting

Each Contractor shall be responsible for the cost of expediting all fabrication and delivery of its materials. Should, in the opinion of The Construction Manager, it become necessary in order to maintain job progress for The Construction Manager to supplement the Contractor's expediting efforts, then all cost incurred by the Construction Manager, Owner and/or Architect/Engineer shall be back charged to the Contractor as The Construction Manager may elect. If necessary, the Contractor is required to pay fees associated with site visits by the Construction Manager or the Architect/Engineer to manufacturing facilities producing materials for the project.

5.3 Continuous Operations / Out of Sequence Work

Work will be coordinated in an attempt to allow continuous installation by Contractors. This will not always be possible and some comeback and/or out of sequence work will be necessary to complete the construction on the part of the Contractors. Out of sequence work (including re-mobilizations), ordered by The Construction Manager or the Owner, which may be required to meet the job schedule or occupancy requirements or allow the Owner to use the facilities, shall be included in the base bid prices.

Any Prime Contractor who installs work out of sequence shall protect their work from the activities of other Contractors.

5.4 Project Coordination

Coordinate construction activities included under various Sections of the Specifications to assure efficient and orderly installation of each part of the Work.

Coordinate construction operations included under different Sections of the specifications that are dependent upon each other for proper installation, connection, and operation. Where installation of one part of the Work is dependent on installation of other components, either before or after its own installation, schedule construction activities in the sequence required to obtain the best results. Where availability of space is limited, coordinate the installation of different components to assure maximum accessibility for required maintenance, service and repair. Make adequate provisions to accommodate items scheduled for later installation. Verify that anchorage, blocking, joining and other detailing are provided as required. Do not obstruct spaces required by Code in front of construction, access doors, or equipment. Coordinate all related questions regarding this issue through the Construction Manager

Existing facilities inside/outside Project Area will continue to be in operation during the construction period. The Contractor shall schedule and arrange the Work to provide minimum inconvenience the public and NYS Parks personnel. Keep all areas adjacent to and leading from the work areas clean and free of debris at all times. Where necessary, prepare memoranda for distribution to the CM outlining special procedures required for coordination. Include such items as required notices, reports, and attendance at meetings. Prepare similar memoranda for the separate Contractors where coordination of their work is required.

Administrative procedures:

Coordinate scheduling and timing of required administrative procedures with other construction activities to avoid conflicts and ensure orderly progress of the Work. Such administrative activities include, but are not limited to the following:

- a. Preparation of schedules;
- b. Installation and removal of temporary facilities;
- c. Delivery and processing of submittals;
- d. Installation and removal of mock-ups;
- e. Pre-installation conferences;
- e. Progress meetings;
- f. Preparation and delivery of progress payments
- g. Project Closeout activities;
- g. Start up and adjustments of systems
- h. Etc.

6.0 **JOBSITE RULES**

6.1 Work Hours

A. Restorations and New Construction:

In general the project will be open from 7:00 am to 5:00 pm for New Construction. However, any work that will directly affect or provide disruption to Owner's Activities will be need to be coordinated with the Owner. Coordinate all aspects of this type of work with the Construction Manager as required.

All trades will maintain the same work hours unless authorized by Turner Construction Company. If a Contractor or the Construction Manager feels overtime hours are necessary to meet the contractual schedule commitment of the Contractor, the Contractor shall work such overtime hours, additional shifts, weekends and/or Holidays. The Contractor must notify the Turner Superintendent a minimum of

seventy two (72) hours prior to normal quitting time so that arrangements can be made to supply supplemental supervision personnel. The Contractor requiring same shall cover the cost of the above.

B. NOTE: Prior to commencing work, ALL Contractors are to be in NYDOL Prevailing Wage compliance for both overtime work and/or working 10 Hour days. Refer to **Exhibit H and Exhibit I** for "Form 1655 Dispensation Hours (OT) Application" and "Form 1654 Registration for (4) 10 Hour Day Shifts".

6.2 Project Staff

All Contractors shall provide qualified and experienced Project staff including Project Manager, Coordinator/Project Engineer, Quality Assurance/Quality Control Coordinator, Environmental Health and Safety Officer, and Superintendents. Failure to maintain a superintendent on the Project site at all times work is in progress shall be considered a material breach of the Contract, entitling the Owner to seek equitable reimbursement by the Contractor, for durations until the Superintendent is on the Project site full time.

The onsite supervision must have the authority to take immediate corrective measures. All communication given to or produced by the Project staff shall be binding as if given to or produced by the Contractor. The Project staff shall be in attendance at the Project site not less than eight hours per day, five days per week, or anytime contract work is underway the Contractor or any other entity shall not employ members of the Project staff on any other project during their specified term at the Project site.

The Prime Contractors' proposed Project Manager and Field Superintendent for the project are to be **non-manual working** and to have three years' experience in the proposed position. Each successful bidder shall submit resumes to the Construction Manager for the proposed project manager and field superintendent for the project. This information will be reviewed with the Owner, Architect and Construction Manager for approval. Should the Project Managers and/or Superintendents prove unqualified for the position at any point in the project, the Construction Manager shall issue a letter stating that the person is to be removed from involvement in the project. Action must be made within seven working days of receipt of such letter. Each Prime Contractor will always have a competent person on site when work is being performed. That person is to be responsible for the Contractor's operations. The name of this person must be provided to the CM.

6.3 <u>Jobsite Meetings</u>

Bi-Weekly Job Progress Meetings: Meetings will be held at a predetermined day and time bi-weekly at the jobsite. Any and all coordination such as schedule related issues, submittals, material/equipment delivery dates, pricing and any open issues will be discussed at these meetings. The <u>Project Manager</u> of each Contractor must attend these meetings and have the authority to make financial, schedule, manpower, or other job related decisions during these meetings. Supplementing the Project Manager duties with either the Superintendent and/or Foreman is unacceptable. Failure to assign and maintain a Project Manager on the Project shall be considered a material breach of the Contract, entitling the Owner to seek equitable reimbursement by the Contractor.

Each Project Manager will provide a written, two-week look ahead schedule for review and coordination at the meeting. The schedule will show all activities individually, with

start/end dates, show which activities critical path based on the overall schedule, and durations will be shown in days.

Contractors failing to attend and abide by the content of these meetings may be held responsible for any delays and/or expenses incurred due to coordination difficulties in their trades.

Daily Field Huddles: The Foreman's of each Contractor are to attend a "Daily Huddle" for all major work areas. The huddle will be held at a predetermined time and place each day at the jobsite with all Prime Contractors and subcontractors to discuss logistics, schedule and work activities in the field. The huddles are to last approximately 15 minutes each day. The foreman of each Prime Contractor and major subcontractors are required to attend these meetings regardless of the size of his crew on the project at that time and shall be empowered to make decisions on behalf of their company.

6.4 Communication

- A) Mobile Phone Each Contractor shall be available to the Owner, Architect and Construction Manager 24 hours a day/7 days a week via an emergency service contact if personal phone numbers and contact are not distributed. All site Superintendents, and Foremen must have a working cellular phone equipped with email, text messaging and voicemail for the duration of the project and during normal working hours to communicate with the Construction Manager. If the Contractor does not provide the job phone to its Project, Superintendent, or Job Foreman as required, the Construction Manager will furnish a phone to the Contractor's Project, Superintendent, or Job Foreman and the cost of the phone plus a fee of \$1,000.00 per phone will be deducted from the Contractor's pay application. Mobile cell service/internet hook-up and usage costs are the responsibility of the Contractor.
- B) Tablets/IPads- All site Superintendents and Foremen must have at a minimum a working 64GB+ Tablet or iPad equipped with working cellular data for the duration of the project to communicate with the CM and access contract documents. At a minimum, the device must have access to e-mail, Procore, Drobox, and a PDF application that can sync with the shared contract documents (applications such as PDF Expert or Bluebeam can be purchased from either Android or Apple iTunes stores). If the Contractor does not provide the device to its Project Superintendent and Job Foreman as required, the Construction Manager will furnish job iPad(s) to the Contractor's Superintendent and/or Job Foreman and the cost of the iPad and service plus a fee of \$1,000.00 per device will be deducted from the Contractor's pay application. Mobile cell service/internet hook-up and usage costs are the responsibility of the Contractor.
- C) Each Contractor will be responsible for their own phone and internet services at their trailer location and is responsible to provide and coordinate the temporary telephone/data service to their onsite project trailers. All hook-up and usage costs are the responsibility of the Contractor requiring the service.
- A) Bulletins, RFI's, submittals etc. will be handled electronically via electronic document control system "Procore" website. Each Contractor will get an electronic mailbox on the site to post/submit information, ask RFI's etc. and to retrieve responses. The box is to be checked daily for updated information. The Construction Manager will provide one (1) hour training for use of this system if required.

6.5 <u>Daily Construction Reports</u>

By 9:00 AM the following day, all Contractors will submit to The Construction Manager jobsite office, daily manpower counts, a detailed description of work performed and specific locations of each work activity on Daily Report Form. PLEASE NOTE: CREW LEADS MAY HAVE TO STAY PAST 3:30PM TO COMPLETE THIS PAPERWORK. Manpower shall be broken down by job classification (foreman, journeyman or apprentice) trade, and EEO classification. In addition, the Contractor shall include on his form the above information for all of his sub-contractors. Contractors will identify which labor is associated with which sub-contractors. The report shall also note all deliveries, equipment on site, inspection results, visitors and any safety incidents that may have occurred. This document shall not be used as a method of notification for delays. Separate correspondence is required for such notifications, in accordance with the contract documents. Late submission of DCRs is cause for temporary holds on Monthly payments.

6.6 Signage

Signs, logos, etc. will be permitted on the Contractor's own equipment but not on the site fence, shanties, or buildings unless otherwise approved by the Construction Manager. Each Prime Contractor shall post required notices and construction signage information as required by all governing agencies.

6.7 Jobsite Conduct

- A. The Project sites are situated on public property. Each Contractor's management should review with their employees that it is imperative that their conduct be socially acceptable at all times. Vulgar or abusive language, sexually suggestive comments or gestures are strictly prohibited and will result in removal from the jobsite and/or criminal prosecution.
- B. Smoking and Tobacco use up to and including the use of electronic cigarette devices, smokeless (vapor) cigarettes and smokeless/chewing tobacco is absolutely prohibited on all the project site property including areas within construction fencing and parking areas. Any employee in violation of this law will be given a warning. Upon second offense the employee will be removed from the site immediately. If employees smoke on adjacent public property, it is expected that any garbage or debris will be properly disposed of.
- C. Alcohol consumption is absolutely prohibited on all project property including areas within construction fencing and parking areas. Workers observed drinking alcoholic beverages on or off site, during work hours, including lunch breaks, will be permanently removed from the site.
- D. Firearms are strictly prohibited. Contractors shall verify that employees and vehicles are free from any and all firearms.

6.8 Clothing

Proper attire is required on-site. Full-length pants, shirts with sleeves and hard sole work boots are required. No shorts, tank tops or tennis/running shoes are allowed.

6.9 Lunch Areas

Contractors and workers will contain their breaks and lunch periods to the areas designated by The Construction Manager or any public eating area outside the Project Site. All Contractors must provide, maintain and empty (1) 50-gallon container (with liners) within their break/lunch area for the placement of trash. The areas used for construction lunches are to be kept clean and orderly daily by all Contractors. Once finished flooring has been installed in a particular area, no food or beverages will be permitted in that area.

6.10 Shutdowns/Notices/Permits

Plan the Work to minimize shutdown time of any service. Contractors are required to give all required notices to the proper authorities related to the work in their charge. To the maximum extent practicable, shutdowns shall be scheduled for periods when least need for that utility is anticipated. Provide within the Contract Sum an amount sufficient to cover all required overtime in connection with utility shutdown.

For all shutdowns affecting any operations of the owner, a Shutdown Request Form must be completed by the Contractor and <u>approved by The Construction Manager and the ECHDC one (1) full week prior to the desired shutdown date.</u>

- If less notice is provided, the Owner may refuse interruption of utility service.
- Resulting delay in performance of the Work will be a responsibility of the Prime Contractor.
- Do not proceed with the interruption of utility services without the approval of the Owner.

The Contractor is responsible to do due diligence to determine what systems are affected by the shutdown and identify these systems on the request form. Failure to receive proper approval will result in denial of the shutdown request.

Contractors are required to strictly comply with all governing laws, rules, regulations, and inspection requirements, both as to labor and materials, and pay all fees in connection therewith, and shall bear all loss from neglect.

The restroom building (adjacent to the jobsite) water, power and drainage, will be maintained throughout this project.

6.12 Construction Vehicles

All construction vehicles must be cleaned prior to leaving the site. Any Contractor failing to clean vehicles will be responsible for cleaning the street <u>immediately upon notification</u> <u>by The Construction Manager.</u> Dust control and mud control is the responsibility of the Contractor creating same, and they must take appropriate steps to control such per The Construction Manager or other local authorities. Wheel washing equipment will be provided by the sitework contractor per the site logistics plan.

6.13 Excavation/Earthwork

Any Contractor whose work includes excavation shall notify the Construction Manager and "Dig Safely NY" at (800) 962-7962 or "811" at least one week prior to start of work. Dust control and mud control is the responsibility of the Contractor creating same, and they must take appropriate steps to control such per The Construction Manager or other local authorities.

The Contractor is warned that there are utility, power, fiber, tele/data and cable lines, etc. located below grade. The Sitework Contractor will be providing a third party utility

marking company to mark out and identify the underground utilities using GPR prior to excavation. **The Sitework Contractor's** third party utility marking company will produce and submit an as-built survey to the Owner and other Contractors with their findings for their use and record. Contractor is responsible to maintain line markings for the duration of their work. Any lines that have been struck, cut or damaged due to the failure of the Contractor to mark out the lines will be the responsible of the Contractor to fix, repair and/or replace at no cost to the Owner so that the services are restored to the original operating conditions.

Provide temporary shoring and bracing as required for excavation work. All shoring and bracing shall comply with safety regulations of authorities having jurisdiction.

Include all safety fencing and barricades as required to perform excavation and earthwork activities per OSHA requirements. A traffic plate over any excavation the CM feels impedes job movement or safety is also included. Refer to site logistics plans SL-1 for additional information.

6.14 <u>Damages</u>

All Contractors are responsible for any damage, which may occur to the property of the owner or adjacent private or public properties which in any way results from the acts or neglect of his employees.

In Addition, repair and make good, at the expense of the Contractor, all damages thereto including damage to existing utilities and paving arising from operations under the Contract. Repair and protection is the Contractor's responsibility, regardless of the assignment of responsibility for inspection, testing, or similar services.

6.15 Testing, Inspections and Permits

A.) The Owner shall hire a certified, independent testing agency to complete all concrete, soils and steel testing and inspection described in the Contract Documents. The Owner shall also hire a certified, independent Project Monitor for asbestos and lead abatement testing and monitoring. If such testing and inspections performed reveal failure of the subcontractor's work to comply with requirements established by their contract documents, the subcontractor shall bear all costs made necessary by such failure, including but not limited to repeat testing and compensation to other subcontractors, The Construction Manager, Owner, A/E or other expense which may result.

All sub-subcontractors requiring testing and/or inspection by the testing agency shall notify the testing agency and Contractor of such need. The sub-contractor shall notify the testing agency 24 hours in advance of such testing and inspection being required. Delays and/or losses caused by failure of the sub-contractor to properly notify the testing agency for tests and inspections shall be borne by the subcontractor. The subcontractor shall not permit Work to be covered, concealed, or put into use until such Work has been inspected and accepted.

Coordinate temporary enclosures with required inspections and tests, to minimize the necessity of uncovering completed construction for that purpose.

B.) The Contractor is responsible for compliance to all applicable local, state, and federal regulations regarding codes, restrictions, and requirements.

- C.) Except for testing and inspections performed by a testing Engineer in the employ of the Architect and/or Owner, the subcontractor shall be responsible for the execution of all tests, testing and inspections required by the specifications and by all governmental authorities having jurisdiction, and shall pay the costs of all such tests, testing and inspection. The subcontractors shall submit certified results of the tests and inspections to The Construction Manager for the Architect's approval. The frequency of the tests shall be such as not to delay the work of following trades.
- D.) Contractors will obtain and pay for all permits or inspections required for the performance of their work, which are not otherwise provided by the Owner. Originals of all permits are to be furnished to the Construction Manager prior to commencement of the Work. Two such examples are curb cut and water meter/tap permits (which includes the cost of the meter).
- E.) Required certificates of inspection, testing or approval shall be secured by the Contractor and promptly delivered to The Construction Manager. No requisition for payment will be accepted or reviewed until all formal test results/reports are brought current.
- F.) TESTING RELATED TO HEALTH AND SAFETY OF CONTRACTOR PERSONEL IS IN SPECIFICATION SECTION 013529. THE CONTRACTORS ARE TO TAKE SPECIAL CARE TO REFER TO THIS SECTION AND SUBMIT COPIES OF THEIR SITE HEALTH AND SAFETY PLAN WITH SIGNOFF OF THEIR CERTIFIED INDUSTRIAL HYGIENIST TO THE CM FOR RECORD ONLY. AS STATED IN SECTION 013529-1.3-A: "THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE DEVELOPMENT AND IMPLEMENTATION OF HEALTH AND SAFETY PROCEDURES PROTECTIVE OF ALL PERSONNEL ON SITE.
- G.) See also "Testing Certifications and Special Inspections sections in the Project Specifications for additional information and requirements.

6.16 Quality Control

- A.) In addition to the requirements of the specifications, the following shall also apply: It is in the best interest of both The Construction Manager and the Contractor to provide top quality workmanship and materials in accordance with the contract drawings and specifications. The Contractor agrees to actively participate in The Construction Manager's / Architects Quality Control Program and to correct deficient work immediately upon its discovery at no additional cost to The Construction Manager, Architect or the Owner. The project team will be employing the use of electronic document controls (i.e. Procore or similar electronic program) to complete inspections and checklists, and an issues log. The issues log will end up becoming the final punch list.
- B.) Each Prime Contractor shall **utilize the designated electronic software DAILY** to check for open QA/QC items and update the status. Only the Owner, Architect or CM may close out an open item. Procore or similar electronic program is a no cost software that can be accessed with computer, iPhone, iPad, Tablet or Android device. A one (1) hour training will be provided to the Contractors by the Construction Manager.
- C.) The Contractors recognize that contract documents, RFIs and submittals are available electronically from the Construction Manager Procore website and should be

- referenced frequently for coordination purposes. Note that these documents do not supersede official correspondence transmitted to the Prime Contractor's PM.
- D.) The Contractor, at the Owner's, Architect's or CM's direction, may be required to provide mockups prior to the start of any work that is essential to the external or internal appearance or function of the building. This will be provided at no additional charge whether listed in the specification or not.
- E.) Protect construction for quality control service activities until accepted through the Substantial Completion process.
- F.) Each Prime Contractor will review and sign-off above ceiling checklists prior to the installation of ceiling grid and/or hard ceilings or any other type of finished closures.
- G.) Contractors warrant that all materials and equipment furnished under this Agreement will be new unless otherwise specified, and that all Work will be of good quality, free from faults and defects and in conformance with the Contract Documents. All work not conforming to these requirements, including substitutions not properly approved and authorized, may be considered defective. If required by the Architect or The Construction Manager, Subcontractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment.
- H.) Where material is specified to be furnished by others or furnished and delivered only, the subcontractor installing the material shall be responsible for scheduling the delivery, receiving, unloading, storing, handling, relocating, hoisting, distributing, layout out and installing. Upon receipt and acceptance by the Subcontractor installing the material, risk of loss and damages shall be borne by that subcontractor.
- I.) The Contractor shall allow sufficient time to inspect and accept the work of the previous Contractor and/or subcontractor. Should any discrepancies be discovered, The Construction Manager shall be notified sufficiently in advance so that corrective action can be taken without affecting the progress of any subcontractor. If notice is not given, it shall be assumed that Subcontractor accepts all existing work.

6.17 Manufacturer's Field Services -

- A.) When directed by the Architect or the Construction Manager, require the manufacturer or supplier (regardless of their location) to have qualified personnel to provide on-site observations and recommendations at no additional cost to the Owner. Representative shall submit written report to The Construction Manager listing observations and recommendations. The Manufacturer shall validate the quality of workmanship and materials when required by manufacturer warranty. Comply with manufacturer's installation instructions and recommendations, to the extent that those instructions and recommendations are more explicit or stringent than requirements contained in Contract Documents.
- B.) Provide attachment and connection devices and methods necessary for securing Work as required by the manufacturer, even if they are not illustrated on the Contract Documents.

6.18 <u>Continuing Performance</u>

Pending final resolution of a claim, unless otherwise agreed to in writing, the Contractor shall proceed diligently with performance of the contract and payments shall continue to be made in accordance with the contract documents.

6.19 Owner Related Issues

In case of phased and/or partial occupancy, the warranty period called for by the contract documents shall not commence regardless of Owner acceptance and/or occupancy for until the Architect issues either a partial substantial completion or final substantial certificate. Any costs associated with providing extended warranties to meet this requirement shall be included in the base bid

The Owner shall, in conjunction with The Construction Manager, have the right to place and install equipment during progress of the work and the Contractor agrees that such placing and installation of equipment shall not evidence completion of the work or portions of it, nor signify the Owner's acceptance of the work or portions thereof.

Contractors are advised that the Owner may, at his discretion, employ other Contractors or employees to perform work on this project. In such an event, all trades working under this contract shall cooperate in order that the work of all parties can be completed in reasonable order.

The Owner's equipment suppliers shall be provided with reasonable use of power and light (normal working hours) necessary for the installation of their work without additional cost to the Owner or The Construction Manager.

7.0 TEMPORARY FACILITIES AND UTILITIES

7.1 <u>Jobsite Hoisting</u>

There will be no jobsite hoists provided. Each contactor is responsible for their own hoisting.

7.2 Trash Removal:

The <u>General Contractor</u> shall provide and maintain all dumpster(s) for the use and the use of all Prime Contractors and subcontractors for the duration of the project. All charges associated with dumpster services are included in base bid up to and including any transportation fees, fuel charges, sitting fees, tonnage charges, overloading charges and disposal fees, etc. Provide dumpsters as follows:

Dumpsters shall be removed within 4-hours of being full and will be hauled off site to a legal dumpsite. Dumpsters shall be placed per the Site Logistics Plan. For logistical purposes, the dumpsters can be relocated per the Construction Manager's direction should it be deemed necessary. Additional dumpsters may be needed as the job progresses. The General Trades Contractor shall coordinate the need with the Construction Manager.

The <u>General Trades Contractor</u> shall also provide and maintain a wood dumpster ramp at each dumpster location (capable of supporting 500 lbs). Provide with a slope not greater than 12:1. Provide slip resistant cover material on the ramps (i.e. metal lath, sanded paint, granular roofing membrane). Provide protection pads (i.e. plywood, etc) under each dumpster roll off wheels to protect existing asphalt and finished surfaces. Patching and repairing of indentations caused by the dumpster roll off wheel due to lack of protection is also included.

<u>Each Contractor is responsible for DAILY CLEANUP!</u> If this is not performed to the Owner's satisfaction, the Owner/CM may, without notice, self-perform or subcontract this work and back charge the responsible Contractors accordingly. It is the responsibility of each Contractor to get their materials to and loaded into the dumpster daily.

** We do not expect any abatement but if we encounter some - Abatement/Hazardous material dumpsters will be provided by the contractor performing that work separately.

Each Contractor will minimize packing and crating materials in the building to help eliminate fire hazards. In addition, all boxes and debris will be broken up by each respective Contractor to maximize the usable space within the container.

The Site-work contractor will be responsible for the removal and disposal of all site spoils (clearing and grubbing of trees, removal of excavated spoils). These will not be placed in dumpsters.

The Sitework Contractor shall clean out and maintain all manholes, drains, catch basins, and swales, etc. on site of any debris during the course of the project.

Only lawful disposal of construction debris is allowed in the dumpsters. The Contractor generating material that cannot go into the dumpster lawfully (such as: paint, thinner, oil, contaminated rags, gasoline, diesel fuel, empty gas or fuel tanks, 55 gallons drums (empty or full), pressurized containers, asbestos, tires, batteries, PCB's or other hazardous material) will properly dispose of these materials.

7.3 Cleaning

Contractors shall keep all areas around the Restaurant and Restroom buildings, in which they are working, broom clean at all times. If the clean-up work is not accomplished within twenty—four (24) hours, The Construction Manager, with written notification, will have the work completed by a designated Contractor. The cost of the work will be back charged to the Contractor involved, as determined solely by the Construction Manager.

The <u>General Trades Contractor</u> shall provide temporary floor protection for the existing flooring finishes as noted on the Phasing Plan OP-1. It is the responsibility of the General Trades Contractor to maintain this protection for the duration of the project. Removal and disposal of the temporary protection upon completion of the project is also included.

During handling and installation, protect construction already in place. Clean installed equipment & apply protective covering where necessary to ensure protection from damage or deterioration. Clean and maintain completed construction as frequently as necessary through the remainder of the construction period.

Each Prime Contractor is responsible for the final cleaning of their work just prior to turnover to the Owner. This work shall include removal debris, marks, stains, fingerprints, dirt, paint, paper, etc., regardless of origin. The finished product shall be cleaned to the complete satisfaction of the Construction Manager, Architect and Owner before final approval is requested and granted. General construction cleaning will be by the General Trades contractor and will be performed at the direction of the Construction Manager.

<u>The Sitework Contractor</u> shall provide DAILY sweeping/cleaning of all adjacent roads/parking lots shall be performed to collect any loose debris (stone, dirt, mud, packaging, etc.) that has been tracked through and/or blown outside of the construction parking lots and staging areas. Cleaning shall also include passing of a magnet to pick up all loose screws, nails and fasteners, etc.

7.4 <u>Drinking Water</u>

Drinking water and ice will be the responsibility of all Contractors to provide for their work forces.

7.5 <u>Fire Extinguishers, Hot Work Requirements and Volatile Storage</u>

The General Contractor will provide fire extinguishers for general use at the Restaurant and Restroom buildings. Fire Extinguishers shall be mounted to portable stands with signage. The General trades contractor will conduct all required inspections and maintenance for general use fire extinguishers. Each Contractor must supply and maintain a fire extinguisher in all temporary rooms (including jobsite trailers), at flammable material storage areas, and at all locations where welding, cutting or burning work occurs. All Contractors shall follow all applicable regulatory hot and safe work procedures when performing welding, cutting, torching, grinding, brazing, or tacking, including protecting personnel and the adjacent work areas from fire hazards. Store paints, varnishes, volatile oils, and similar combustible materials in properly labeled storage containers and in storage areas as required by law. Store all gasoline and other volatile flammable liquids in properly labeled storage containers and in storage area as required by law. ABSOLUTLEY NO GASOLINE OR COMBUSTIBLES SHALL BE STORED IN THE BUILDING(S).

7.6 <u>Temporary Water</u>

Use of Owner's water supply (faucets, hose bibs, etc...) is permitted as long as the service is not being abused. Abuse will be the sole discretion of The Owner and the Construction Manager. Each Contractor requiring use of temporary water will be responsible for their own hoses and shutoffs from the point of hose bib or temporary water service.

Each Contractor shall also be responsible and pay for extending temporary water supply as required to complete their work. Shut- off valves must be installed and marked above the ceiling inside the existing building in case of emergency. Coordinate with The Construction Manager for locations. Incidental use of the existing building's water supplies will be accepted. When the temporary service is no longer required, the Contractor will remove all temporary work and patch any affected finishes. Each Contractor shall pay for extensions of piping that may be required beyond that described above. All temporary plumbing work shall conform to all federal, state and local requirements and codes.

Any damages to finish work due to negligence or careless use of water by any Contractor will be repaired by the responsible Contractor.

7.6 Temporary Heating, Cooling, Ventilation and Dehumidification

UNDER NO CIRCUMSTANCES SHALL THE NEW EQUIPMENT BE USED FOR TEMPORARY HEATING or COOLING PURPOSES!

During the Heating Seasons:

<u>The Mechanical Trades Contractor</u> will be responsible to provide and maintain temporary heat for the Restaurant building once temperatures fall below 50 degrees Fahrenheit. The

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temporary heating system must be capable of sustaining temperatures between 50-70 degrees. General Contractor shall also provide a digital thermostat to monitor and control the temperatures. The Mechanical Trades Contractor will provide temporary pipe extension for natural gas supply hookup from the existing building line to the temporary heating equipment (refer to Mechanical Trade Contract scope of work). General Trades Contractor to coordinate natural gas requirements with the Plumbing Contractor prior to installation to ensure proper fitments and operability of the system.

During the Cooling Seasons:

<u>The General Trades Contractor</u> will be responsible to provide adequate ventilation and circulation for proper installation of materials and finishes. Temporary dehumidification equipment shall be in place once the installation of the finishes/materials are scheduled to begin. Dehumidification systems shall be designed in accordance to the SF load requirements of each area requiring dehumidification and shall be capable of maintaining a maximum relative humidity level of 50%RH in order to ensure the finishes are being installed in accordance to the manufacturer's recommendations. Manufacturer's recommendations shall be considered minimum requirements to be exceeded.

7.7 <u>Temporary Power and Lighting</u>

General Note: Unless otherwise noted, ALL Contractors shall provide their own temporary power and/or generators for power tools, saws, and any other equipment requiring electric up to and including jobsite lighting. All Contractors shall also provide temporary lighting as required to complete their work.

Provide temporary LED lighting and power for the duration of the project for all work enclosed work areas including below the stage, the green room and the storage room buildings. Temporary LED lighting provided must meet OSHA standards at a minimum and is to be removed in its entirety upon completion of an area and prior to project completion. Temporary lights to be spaced out equally and supported securely to structures.

Electrical contractor will provide temporary power to the Construction Manager's trailer as indicated on the site logistics plan, including heat trace on water and waste piping. Each contractor is responsible for providing power to their own trailers.

The Electrical Contractor shall provide and maintain all temporary power and lighting required for the use of ALL trades in order to maintain workflow within the new addition. Temporary power at a minimum shall consist of a temporary sub panel mounted to a self-supporting stand from the nearest main distribution panel with individual (20-30 amp) circuit breakers to accommodate a minimum of (8) quad outlets w/GFI's for the duration of the project.

7.8 Temporary Toilets

A.) Each contractor will provide the temporary chemical toilets (TCT) for their own workers and their subcontractors at the project site. Toilets shall remain on site for the duration of the project. Section 1926.51 of OHSA shall be the basis for the minimum quantity of toilets required, but not less than as stated below. All facilities will meet local practice and OSHA requirements.

- B.) Temporary toilets must be free from all graffiti, cleaned and maintained, as needed, **twice a week minimum**, and will be supplied with the necessary toilet paper, hand sanitizer and paper towel supplies.
- C.) The <u>Each Contractor</u> shall also be responsible to provide the following work associated with their portable temporary toilets:
 - 1. The portable temporary toilets shall be placed as directed by the Construction Manager's Project Superintendent.
 - 2. Each TCT shall be relocated as necessary and as directed by the Construction Manager's Project Superintendent.
 - 3. TCTs will be inspected daily to ensure all units are graffiti free. Any graffiti discovered will be brought to the immediate attention of the CM.
 - 4. TCTs shall be properly anchored so that they will not blow over.

7.9 <u>Temporary Offices</u>

The <u>General Trades Contractor</u> shall take over the existing rental for the current CM Construction Trailer for the duration of this project. The General trades contractor will take care of the disconnection and removal of temporary utilities currently servicing the trailer. They will provide new utilities at the new location at the Wilkeson Point Site. The contractor is responsible for winterizing the trailer utilities in and repairing any pipe that freezes during the construction period. The General Trades Contractor will also provide all items for the field office per the "Office Requisition" portion of the <u>General Trades</u> contract scope of work.

Contractors are permitted to have one (1) temporary office space for use during construction and may be placed in the designated Office trailer area indicated on the Site Logistics Plan SL-1. All costs associated with temporary offices including, but not limited to, partitions, electrical service, telephone service, temporary heat, etc. will be by the Contractor. Any alternate location of temporary offices must be reviewed and approved by the Owner and the Construction Manager. Offices must be removed or relocated whenever they impede the normal progress of work at no cost to The Construction Manager or the Owner. All shanties installed by a Contractor must be constructed of fire-retardant materials. Non-combustible paint is not acceptable. Installation and utility costs of a contractor's jobsite trailer are the sole responsibility of that Contractor. If electrical power is provided by the jobsite temporary service or the owner's primary service, the Contractor shall have a meter installed and be responsible for the utility cost.

7.10 Site Dewatering

Each Contractor is to make provisions for their own dewatering so as not to impede job progress including that of other Contractors. Any water being discharged into a storm sewer must be compliant with the SWPPP. In addition, the <u>General Trade Contractor</u> will have the discharge water tested for turbidity to create a job record. Include all filtering as required to discharge water to the appropriate cleanliness.

The <u>General Trades Contractor</u> shall provide all dewatering as required to maintain clear access and egress to and within all areas of the foundation work below grade for the duration of the project.

7.11 Snow/Ice Removal

All Prime Contractors, for their portion of the work, shall remove all snow and ice as may be required for the protection and execution of your work. Off-hour work for removals shall be included at no charge.

The Sitework Contractor shall provide all snow and ice removals required to clear the areas necessary to complete their work within the jobsite fence areas and around the construction trailers. During active construction the Sitework contractor is responsible for snow removal for parking areas and designated employee access routes, including shoveling and salting pathways. The Sitework Contractor shall also provide all snow and ice removals as required to clear the construction entry door(s)/gate(s), dumpsters and ramps to facilitate the trash removals. See Site Logistics Plan SL-1 for locations.

Note – construction managers trailer will remain occupied throughout the winter months and snow removal, including removal of snow for the access route and shoveling pathways to the office trailer and salting walkways will be required for the entire winter.

7.12 <u>Temporary Interior/Exterior Partitions/Enclosures</u>

Unless otherwise noted, protection shall be at a minimum 3-5/8"steel stud framing at 24" O.C. insulated, with ½" exterior grade plywood fastened with screws. Protection shall be installed in a manner to provide a water tight seal at each building envelope exposure (i.e.: temp caulking at all seams, etc.) until the new work is installed. All temporary interior partitions/doors (unless otherwise noted) shall be furnished, installed, maintained and removed by the General Contractor. Refer to the General Trades Contract Scope of Work for further details.

The <u>General Trades Contract</u>or shall remove and dispose of the temporary protection for the doors, unit vent penetrations and mechanical systems. Include modification/removal, reinstallation of temporary enclosures as necessary to complete the work of this Contract. Include all cost to remove temporary partitions, enclosures and/or doors. Repair of all finishes damaged during the installation of and removal of temporary partitions and doors is also included. This shall include but is not limited to wall patching, ceramic tile replacement, painting and ceiling restoration, etc.

All <u>Contractors</u> shall Include modification/removal, and reinstallation of temporary enclosures (originally installed by the General Trades Contractor) as required to install the work of their contracts. Buildings must remain weather tight at all times to protect interior finishes and must be secure at the end of each workday to prevent theft/vandalism.

7.13 Ladders/Rough Carpentry

Each Contractor will be responsible for furnishing, erecting, maintaining, and removing temporary scaffolding, ladders and stairways to access and install their own work as required. OSHA regulations to apply for number and size required. The location of the temporary scaffold stairs shall be reviewed and approved by the Construction Manager.

7.14 Benchmarks and Building Control Lines

The Sitework Contractor shall procure the services of a registered professional land surveyor to perform the field layout work for establishing primary site lines and levels at all exterior areas. If any of the control points are moved or lost, control points shall be re-established by the General Trades Contractor at no additional cost to the Owner. Contract work shall properly relate to lines and levels and detail dimensions shown or established by the contract documents. See also Specification Section 017300 for additional requirements.

All layouts are the responsibility of each Contractor. Contractors shall exercise proper precaution to verify the dimensions shown on drawings prior to laying out work. All discrepancies, inaccuracies or errors which are found, are to be reported to The Architect and Construction Manager prior to proceeding with the work. The Contractor shall be held responsible for any error resulting from failure to exercise such precautions.

The Contractor will be responsible for any and all extensions of lines and grades necessary for their work. Contractors are cautioned that temperature corrections during all surveying and layouts must be used. Contractors are also expected to clear, move and clean site areas as necessary to perform their own layout.

7.15 <u>Temporary Shoring and Bracing</u>

Provide temporary shoring and bracing as required for execution of the work. All shoring and bracing shall comply with safety regulations of authorities having jurisdiction and must be designed by a Professional Engineer licensed in the State of NY.

7.16 <u>Temporary Signage</u>

Each Contractor is required to post and notify the public prior to any work beginning. This includes all types of safety signage throughout the duration of the project.

By no later than September 10, 2023 the General Trades Contractor shall provide and maintain the following signage for the duration of the project. Signs must be made of metal with grommets for mounting and shall be turned over to the Construction Manager upon project completion:

- A.) Furnish and install (4) 24"x18" "NO TRESPASSING Construction Area Violators Will Be Prosecuted" Include labor and material to fasten signage to temporary and/or existing fencing at locations as designated by The Construction Manager
- B.) Furnish and install (1) "All Contractors/Visitors Must Register with Turner Construction" signs in location designated by The Construction Manager. Signs are to have white, reflective backgrounds with blue lettering. (2'x2'). Include labor and material to fasten signage to temporary and/or existing fencing at locations as designated by The Construction Manager.
- C.) Furnish and Install (3) 2'x2' w/2½" letters "HARD HAT/SAFETY GLASSES REQUIRED" Include labor and material to fasten signage to temporary and/or existing fencing at locations as designated by The Construction Manager.
- D.) Furnish and Install (4) 2'x2' w/2½" letters "NO SMOKING ON PROPERTY" signs in location designated by The Construction Manager. Signs are to be red with white lettering.
- E.) Furnish (1) 3'x3' "Gate 1" and (1) 3'x3' "Gate 2" Sign. Sign to have 1' Letters Include labor and material to fasten signage to temporary and/or existing fencing at locations as designated by The Construction Manager.
- F.) Furnish and Install ALL Storm Water Prevention Plan (SWPP) signage as required per the contract documents and specifications.

7.17 <u>Removal and Reconditioning</u>

Temporary facilities, barricades, utilities, and other construction of temporary nature shall be removed from the project site as soon as the progress of the Work will permit in the

opinion of the Construction Manager. Legally dispose of all debris resulting from removal and recondition operations.

8.0 GENERAL PROTECTION AND SAFETY

8.1 Site Safety Plan

The Contractor Safety programs along with any additions and/or modifications that may be necessary over the life of the project, should assist in helping to keep accidents at a minimum during the construction. This program is to be incorporated into the Contractor's own site specific safety program referenced in section 3.2 of these Special Provisions. Contractors must realize that accident prevention is mandatory, and beneficial to all. The responsibility of every individual on this project is a safe job site.

The Owner expects the full cooperation of all Contractors, regardless of tier, in monitoring, supervision, and enforcing the project safety and fire prevention program, including project specific requirements.

- A) The safety of the Contractor and subcontractors, and their representatives, agents, employees and invitees, while on the Work site, or of any other person who enters upon the Work site with the consent of Contractor, subcontractors or the representatives, agents, employees or invitees of any of them for reasons relating to the Contract, shall be the sole responsibility of Contractor. Contractor shall at all times maintain good order among its employees and shall not employ, for purposes of the Contract, any person unfit or not skilled in the Work assigned.
- B) Contractor shall, at all times during the performance of the Contract, take all measures and precautions to (i) protect the property of the Owner and others, and (ii) prevent injury, illness or death to any person. Such measures and precaution shall include, but shall not be limited to, all safeguards and warnings necessary (i) to protect all persons against any condition, including exposure to health hazard, on the Work site which could be dangerous and (ii) to prevent accidents of any kind whenever the Work is being performed, particularly where the Work is being performed in proximity to any moving or operating machinery, equipment or facilities, whether such machinery, equipment or facilities are the property of or are being operated by, Contractor, its subcontractors, Owner, or other persons.
- C) Contractor shall promptly comply and shall at all times during the performance of the Contract take all measures and precautions necessary to ensure that subcontractors and their representatives, agents, employees and invitees shall promptly comply with any and all of Owner's requirements, if any, to initiate corrective action for deficiencies regarding (i) the prevention of accidents or fires or (ii) the elimination of accident hazards, fire hazards or unsafe practices.
- D) Contractors shall comply, and shall at all times during the performance of the Contract take all measures and precautions necessary to ensure that subcontractors and their representatives, agents, employees and invitees shall comply with all federal, state and local safety, health and environmental laws, rules, regulations, ordinances, orders, decrees, decisions, restrictions and permits and licenses including, but not limited to, the Occupational Safety and Health Act, 29 U.S.C. § 651 et. seq.; as they have been or will be amended from time to time, and the regulations implementing such statutes;

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any similar state and local laws and ordinances concerning the protection of human health and the environment and the regulations implementing such statutes.

- E) Contractor shall comply, and shall at all times during the performance of the Contract take all measures and precautions necessary to ensure that subcontractors and their representative, agents employees and invitees shall comply, with such regulations, policies and procedures as Owner may from time to time establish.
- F) Contractor shall not introduce and shall at all times during the performance of the Contract take all measures and precautions necessary to ensure that subcontractors and their representatives, agents, employees and invitees shall not introduce, onto the Work site any Hazardous Substance with Owner's prior written approval. "Hazardous Substance(s)" means (i) any substance, material, chemical or waste which is or shall be listed or defined as hazardous, toxic or dangerous under any Applicable Environmental Law, or (ii) any petroleum products, or (iii) any substance, material, chemical or waste which is or may become, directly or indirectly, by chemical reactions or otherwise, hazardous, toxic or dangerous to life, health, property or the environment by reason of toxicity, flammability, explosiveness, corrosively or any other reasons.

"Applicable Environmental Law" means any and all laws concerning the protection of human health and the environment which include, but shall not be limited to, the Comprehensives Environmental Response, Compensation and Liability Act, 42 U.S.C. §§ 9601, et seq.; the Resource Conservation and Recovery Act, 42 U.S.C. §§ 6901, et seq.; the Federal Water Pollution Control Act, 33 U.S.C. §§ et seq.; the Clean Air Act, 42 U.S.C. §§ 7401 et seq.; the Hazardous Materials Transportation Act, 49 U.S.C. §§ 1471 et seq.; the Toxic Substances Control Act, 15 U.S.C. §§ 2601 through 2629; and the Safe Drinking Water Act, 42 U.S.C. §§ 300f through 300j; as they have been or will be amended from time to time, and the regulations implementing such statues; and any similar state and local laws and ordinances concerning the protection of human health and the environment and the regulates implementing such statutes.

G) Zero Tolerance Program- Bias-Motivated Event / Workplace Violence/Graffiti Protocol Statement on Harassment: The Owner expects that each Prime Contractor will promote a work environment at the Project that is free from harassment of any kind. Each Prime Contractor must have ZEROTOLERANCE for harassment, including harassment on the basis of race, sex, gender, gender identity, gender expression, transgender status, sexual orientation, pregnancy, childbirth and other pregnancy-related conditions, color, national origin, ancestry, age, religious creed, citizenship, marital status (including registered domestic partners), parental status, physical disability, mental disability, medical condition, genetic information, military or veteran status (including protected veteran status), or any other characteristic or status protected by law.

Each Prime Contract agrees to be bound by this Statement on Harassment and any violation or suspected violation of such policy by the Prime Contractor or any of its officers, agents, servants, employees, subcontractors or suppliers shall be considered as Prime Contractor's failure to perform its obligations under the terms and conditions of this Agreement. Prime Contractor shall actively promote a harassment-free work environment among its officers, agents, servants, employees, subcontractors, and suppliers.

<u>Training/Stand Downs/ Postings:</u>

Each Prime Contractor shall mandate and track that each worker on the jobsite has been through a 10 minute Inclusive and Respectful Workplaces video before entering the job site. A video will be provided by the CM at notice of award.

Each Prime Contractor shall participate in two (2) stand downs that promote an Inclusive and Respectful workplace coordinated with CM.

Each Prime Contractor shall post zero tolerance posters at all huddle areas and project trailers.

Bias-Motivated Event / Workplace Violence/Graffiti Protocol

The following protocols pertain to bias-motivated incidents in the workplace directed at an individual or a group based on perceived or actual membership in a protected class, including (but not limited to) race, religion, gender, gender identity, sexual orientation, class, ethnicity, age, and/or disability.

Certain bias-motivated events rise to the level of a hate crime, a criminal offense. Examples include destruction, damage or vandalism of property, intimidation, graffiti or symbol(s) depicting hate (e.g., a noose, confederate flag, swastika), issuance of derogatory leaflets, threats and/or acts of violence.

Any individual who witnesses a bias-motivated event or potential hate crime, MUST NOT ignore it:

- 1. If the incident involves immediate danger or violence CALL 911
- 2. If the incident targets a specific employee, group of employees or other individuals, ensure their safety and well-being.
- 3. Secure the area. DO NOT remove evidence or disturb the potential crime scene; take photos only. All such photos must be secured, not shared, or published in any way, outside of the investigation. Limit foot traffic to authorized members of management only; no visitors.
- 4. Immediately inform the Construction Manager and provide information for an incident report. The Construction Manager will notify the Client and notify the other Prime Contractors and coordinate a job site stand down. A job site stand down will be conducted within 24 hours of an incident and it is mandatory participation for each worker, Project Site Leadership staff and Principals of each Prime. Each Prime Contractor will be responsible for notifying their sub-primes and ensuring similar participation.
- 5. Each Prime Contractor will be required to participate in a Bias Motivated Event (BME) call with the Construction Manager within 2 hours of the event.

During Bias-Motivated Event Call participants determine next steps, including:

- a. Whether or not to notify the police, if necessary, with the input and approval of the Owner.
- b. How to address the media, if necessary, but with the intput and approval of the Owner.

- c. Individuals assigned to conduct the investigation.
- d. Appropriate response based on the nature of the event, severity, and recurrence (e.g. stand down, project shutdown, subcontractor consequences, training & education)
- 6. If BME call determines that a project shut down is required then Each Prime Contractor will send all of their workers home following a stand down.

 Prior to any workers returning to work the following work day, each worker shall receive additional Diversity, Equity and Inclusion training coordinated with the CM.
- 7. If BME call determines a site investigation is needed. The Foreman for each Prime Contractor will remain on site and fully cooperate with planning of the investigation including providing the names of all employees that have been on site within the time frame that the incident most likely to have occurred. At their discretion, the Owner and the Construction Manager may observe or participate in the investigation conducted by the Prime Contractor.
- 8. Each Prime Contractor will be responsible for implementing and documenting an anti-harassment, zero tolerance tool box talk program, coordinated with the Construction Manager, following the incident promoting and mandating zero tolerance.

8.2 <u>Safety Program</u>

The Owner requires Contractors to be responsible for maintaining a safe job. This will be insured by the following means:

- A. TESTING RELATED TO HEALTH AND SAFETY OF CONTRACTOR PERSONEL IS IN SPECIFICATION SECTION 013529. THE CONTRACTORS ARE TO TAKE SPECIAL CARE TO REFER TO THIS SECTION AND SUBMIT COPIES OF THEIR SITE HEALTH AND SAFETY PLAN WITH SIGNOFF OF THEIR CERTIFIED INDUSTRIAL HYGIENIST TO THE CM FOR RECORD ONLY. AS STATED IN SECTION 013529-1.3-A: "THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE DEVELOPMENT AND IMPLEMENTATION OF HEALTH AND SAFETY PROCEDURES PROTECTIVE OF ALL PERSONNEL ON SITE.
- B. All persons on the project, including workers, delivery drivers, visitors, inspectors, employees of any subcontractor and/or supplier, shall be required to wear ANSI Z87.1 approved safety glasses with permanently attached side shields. Persons with prescription glasses shall wear ANSI Z87.1 approved goggles to cover their existing glasses. Each of the above mentioned parties must also wear an OSHA approved hard hat 100% of the time. Violators will be removed from the site. Other safety protection shall be as dictated by the work. All employees shall wear a hard hat, safety glasses, level 4 cut resistant gloves(minimum), shirts with sleeves(4" minimum), long pants and work boots at all times. Other safety protection shall be as dictated by the work. Each Contractor shall keep spares of each in their site trailer or gang box for new employees and replacement. No shorts, tank tops or tennis shoes shall be permitted.

- C. All workers are required to wear ANSI Class 2 high visibility safety vests for increased awareness/visibility at all times while working on site. Each Contractor shall keep spares in their site trailer or gang box for new employees and replacement.
- D. Prior to commencement of work, each **Prime Contractor** shall attend a Site Specific Safety Kick Off meeting. An officer of the company, project manager and project crew lead shall attend the meeting. Prior to any tiered subcontractors commencing work, a safety kickoff meeting shall be held with each sub and attended by an officer of their company, the project manager and the project foreperson
- E. Each Prime Contractor shall conduct a site specific safety orientation for all of their workers and subcontractor workers prior to the worker beginning work on site. The Prime Contractor shall keep a log of all workers and their date of orientation. The Prime Contractor shall supply a project specific sticker or tag to visibly identify that each worker has been orientated to the project site. The orientation shall be developed by the Contractor's safety director or principal of the company and include an overview of all items within this document, the crisis plan and evacuation plan for the project as well as any other pertinent safety information.
- F. Each **Primes** Safety Coordinator will conduct Bi-weekly site safety inspections by the **Prime Contractor** health and safety director or an officer of the company with a written report. Each **Prime Contractor** will have a representative review open items and resolution at each biweekly Project Manager's meeting. Also, contractors shall advise of the forthcoming operations that could create new hazards. There will be a 24-hour limitation imposed on correction of safety violations (immediately on critical hazard).
- G. Each **Prime Contractor** shall conduct a quarterly critical safe behavior coaching event. The **Prime Contractor**'s health and safety director/consultant shall be accompanied by 2 to 4 employees and will observe an activity for a period of 10-15 minutes to observe the number of activities that were either safe or at-risk. At the end of the observation period, the observers stop the crew for a feedback or "coaching moment". Observations shall be documented and shared with the other **Prime Contractors** at the next project meeting.
- H. The Owner, Construction Manager and the A/E are to be notified immediately of any safety incident on site. Contractors shall provide accident reports to The Construction Manager no later than (24 hours) after an accident occurs. Each Prime Contractor shall be required to perform a Root Cause Analysis conducted by their health and safety director/consultant, project manager, superintendent, foremen and a principal of the company following each incident and/or near miss to help identify the true cause of the event, examine lessons learned and implement continuous improvement and program evolution.
- I. The General Contractor shall provide, install and check weekly a project safety suggestion box prominently displayed on the project. Any suggestions shared shall be discussed with action items with all of the Prime Contractors during the biweekly project meetings. The General Contractor shall close the loop with the workers to inform them on how suggestions were or were not implemented.

- J. Each Contractor shall have at least one (1) Red Cross CPR certified first aid & CPR person and competent person on the Project at all times. The name of this person and date of certification shall be submitted to The Construction Manager's Project Superintendent at the start of his work and any change shall be noted on the weekly Tool Box Talk Minutes.
- K. All **Prime Contractor**s are required to participate in safety stand downs as requested by the Owner and after each recordable incident (a minimum of 2 stand downs will be held). This will include stopping all work on the project and gathering all individuals to a central location to discuss important safety items on the project for a short duration (15-30mins). The safety director from each **Prime Contractor** will be responsible to collaborate together and come up with the presentation. Send presentation to construction manager 5 days ahead of stand down. Include time in bid.
- L. Job Hazard Analysis. JHA's shall be completed by each **Prime Contractor** and reviewed with their onsite workforce a minimum of two weeks prior to the start of each new activity. **Prime Contractor** shall provide a record copy of the JHA with sign in sheet.
- M. Each **Prime Contractor** is required to utilize pre-task plans PTP's for all work being performed. Contractors will be required to meet with all of their workers in the morning to discuss the day's activities, hazards and controls. Contractors will be required to create a form to include the tasks, hazards, controls and the signatures of the crew members. These forms shall be provided for project record each day by 9am. Should the plan differ from the Pre-Task meeting held in the morning, a new PTP will be required. Each Contractor's health and safety director/consultant is required to review all PTP's from their company's crews at least once per week. This is to be noted in the safety report & DCR.
- N. All **Prime Contractors** are to implement a Stretch and Flex program on this project. The stretch and flex shall be facilitated and led by each Prime Contractor's superintendent or designee at a central location, every morning prior to the start of work. All sub-tier contractors are required to participate in the program. All employees are required to participate up to their physical level of comfort.
- O. The General Contractor shall include an allowance of \$100/month to host a total of (9) monthly safety lunch for (5) randomly selected trade workers, taken from the entire project workforce, to discuss project safety conditions and opportunities for improvement. Each Prime Contractor shall make their employees available to participate when selected. The meetings will commence July 2021 and will be managed by the General Contractor's health and safety director/consultant or a principal of the Company. The General Contractor shall close the loop with the workers to inform them on how suggestions were are were not implemented.

P. Nothing Hits the Ground:

Fabrication:

All material fabrication shall be performed at a workstation between 30 and 39 inches off the floor. Workstations shall be mobile and include a fire/debris stop directly behind all chop saws. Rubbish containers shall be mobile and located directly adjacent

to the workstation. The subcontractor is to furnish all mobile rubbish containers for their work.

Housekeeping:

All rubbish shall be disposed of as it is generated and be immediately placed in mobile rubbish container. Cordless power tools are required unless the subcontractor can demonstrate a hardship or need to use tools with power cords. The subcontractor is required to elevate all power cords in order to minimize tripping hazards on walking/working surfaces. Debris is not allowed to be consolidated on the floor.

Material Handling and Storage:

Materials may not be stored within 10 feet of the building perimeter or within 6' of interior shafts or stairwells. All material laydown areas must be coordinated through ECHDC and the CM. Material must be stored to promote mobility of material. Pipes, conduits, metal fabrications and steel framing are to be stored on rolling racks or similar means of conveyance. Bulk material must be palletized to allow for easy mobility using a pallet jack. "Just in Time" delivery is required to minimize clutter. Nothing should be stored on a floor that cannot be installed within one week. Heavy material such as glass and drywall must be loaded so as not to overload the structure. The **Prime Contractor** is required to do a floor loading analysis for submission to the design team for review. Contractor shall be required to store all materials on carts with castors to promote mobility and efficiency. Each Contractor shall have mobile work benches designed for fabrication/cutting in the power zone (height between the knees and shoulders) and garbage bins should be positioned with each work bench to eliminate accumulated debris on the floor. Each scissor lift should have a waste bin to collect miscellaneous debris to reduce housekeeping concerns. Dump carts should be readily available in all areas and dumped at the end of each shift. All debris to be placed directly into garbage bins.

Q. Ladder Policy:

- Prior to beginning work, the Contractor or subcontractor shall evaluate all tasks
 that require individuals to work at elevated heights. It is the expectation that
 these tasks will be performed using methods other than a ladder where feasible.
 Use of lifts and portable scaffold devices shall be the preferred method to
 perform this type of work. Ladder use on this project will be allowed only when
 it has been determined that it is unfeasible to use all other options to complete
 the task. If it is determined that a ladder is the only means of performing the
 job at elevated height. Ladder usage must be specifically noted on each crew's
 pretask plan.
- 2. If a ladder is to be used, it must be a platform/podium type ladder or a "leansafe" ladder with a green top.
- 3. No aluminum or job-built ladders are to be used on the project.
- 4. Workers must maintain 3 points of contact while ascending/descending a ladder. If this cannot be done, workers must tie off at any height.
- 5. When working at a height greater than six (6) feet, 100% fall protection is required. A retractable lanyard must be used.

R. Access to Roofs:

Ladders shall not be permitted. Contractors shall utilize portable lifts or provide and maintain a stair scaffold system complete with the bottom entry point protected by an 8' lockable enclosure for the duration of the project. Reference the General Trades Contract Summary of Work and Site Logistics plans for placement.

- S. In accordance with OSHA regulations, each contractor will hold weekly "Toolbox" meetings with jobsite personnel to discuss safety. Minutes of each (handwritten) of these meetings shall be turned in weekly with the HAZMAT log to the Construction Manager Safety Coordinator.
- T. There is a 6'-0" positive fall protection rule for all work on this project. For all roofing work, a safety monitor is not permitted, a full perimeter safety system consisting of a top rail, mid rail and toe board is required at all roofing elevations. The use of guard rail, safety harness with a personal protection device, or safety net whenever <u>ANYONE</u> is working over 6'-0" is required except as follows:
 - 1. During scaffold erection and dismantling the designated competent person overseeing the operation shall determine the feasibility of positive fall protection. If it is deemed that positive is infeasible, the competent person shall put a fall protection plan in writing which meets the Federal OHSA requirements found in Subpart L section 1926.451(g) and provide copies to The Construction Manager for the project record prior to commencing the operation.
 - 2. The 6'-0" fall policy does not apply to moving up and down ladders. However, when working from ladders, and an individual's work requires him/her to lean out over the side rails of the ladder, positive fall protection utilization is mandatory.
 - 3. Steel erectors and metal deck installers are required to utilize 100% positive fall protection at all times.
- U. Contractors are to responsible to ensure that all scissor lifts, mobile elevated work platforms, and aerial/boom lifts provided on site shall be equipped with manufacturer approved guards and shrouds for lift controls. All aerial/boom lifts shall also be provided with anti-crush technology.
- V. The use of restraint lanyards is required at all times within a scissor lift.
- W. Personal Fall Arrest System is required at all times when working in an aerial/boom lift.
- X. All electrically operated tools and equipment must be properly grounded with the exception of approved insulated types.
- Y. Contractors are responsible to remove and replace in original positions barricades, railings, covers, etc., in accordance with subpart M, OSHA 1926,500. The unguarded opening(s) shall be manned until the barricade is replaced. During discontinuous or intermittent work operation, safety protection is to be replaced immediately. If not

promptly replaced, replacement will be by others at the removing Contractor's expense.

- Z. Only low velocity powder actuated tools can be used. All personnel must be certified when using powder activated tools and laser devices. All use of these tools must be approved by the Contractors Safety Officer prior to their usage, as well as, posting all proper signage.
- AA. All compressed gas cylinders must be properly handled. They must always be in an upright position and properly secured when stored. Cylinders are to be separated by a minimum of 20 feet or a manufactured cart with a CERTIFIED AND TESTED 30-minute barrier. All oxygen and acetylene cylinders in use should be secured on a special carrier with a fire extinguisher.
- BB. All Contractors and delivery drivers employed on the job site are required to wear a hard hat and eye protection as a condition of employment. There are no exceptions to this rule. Contractors will provide workers with all necessary personal protective equipment and tools and enforce the use of same.
- CC. Any worker that is part of the demolition that is not certified in asbestos removal is required to take and provide certification of OSHA Asbestos Awareness Training (2-hour course).
- DD. The Contractor and sub-contractor is expected to have a scheduled maintenance program for all tools and equipment.
- EE. All shanties and trailers must be supplied with a current 20# ABC fire extinguisher, an OSHA approved first aid kit and a copy of the OSHA Construction Standards. A prominent sign is required at the extinguisher's location. If gang boxes are used instead of a shanty, the gang box shall contain the above.
- FF. Take all necessary precautions to avoid fires. Provide fire watches when welding or burning operations are in progress. Fire watch must remain at the location of the work for a period of 60 minutes after work is completed.
- GG. Alcoholic beverages or illegal drugs are **not** permitted on this Project.
- HH. Media devices with earphones are not permitted on this Project. Loud radio playing is a potential hazard, disrupting to building occupants and is not permitted.
- II. Use of cell phone while operating any equipment is strictly prohibited.
- JJ. No Contractor shall permit their employees to use another Contractor's scaffold without written permission from the owner of the scaffold. All scaffolds shall be checked daily and before each use for safety compliance. No scaffold shall be left at any time in an unsafe condition and shall be removed immediately if not to be used again.

- KK. All extension cords, cables and hoses shall be maintained at least 6 feet 6 inches above the working floor. Where this is impossible, these items shall be inspected daily and repaired immediately or tagged and removed from use until repaired.
- LL. No material shall be stored within 6 feet of a floor opening of the building, 10 feet of the perimeter, or 15 feet from the edge of the roof. For assistance with storage locations, contact the Project Superintendent.
- MM. All equipment, materials and debris shall be secured at all times, or removed immediately to grade level until the building is enclosed, to prevent wind blown objects.
- NN. In accordance with the provisions of the HAZARD COMMUNICATION STANDARD 29 CFR-1926, Material and Safety Data Sheets for any chemical/substance alone with any additional information, safety data or supplemental material safety data sheets available now or in the future are required to be submitted to The Construction Manager prior to material deliveries to the site.

Failure to comply with the agreement may result in The Owner or Construction Manager receiving a citation from the Occupational Safety and Health Administration (OSHA), for violation of the Hazard Communication Standard. The Contractor shall be responsible for all costs to The Owner or Construction Manager for such citations issued in connection with the Contractor's material.

The Contractor shall be responsible for, but not limited to, the following conditions as it relates to the Hazards Communications Act:

- 1. Set up and conduct a program for its employees at each jobsite.
- 2. Maintain an updated chemical inventory sheet and SDS's, which must be coordinated and shared with The Owner's EH&S Committee and all other subcontractors at the jobsite. These forms must be in a searchable .pdf format. Contractors shall turn these in with copies of their Toolbox Talks.
- 3. Each Contractor is responsible for maintaining an updated file for this jobsite for all hazards that may be encountered on the job.
- 4. Each Contractor is responsible for labeling and identifying materials (per OSHA requirements) used by him and sharing this information with all other Contractors and subcontractors at the jobsite.
- 5. Training and documentation of training in hazard communications is the responsibility of each Contractor.
- 6. All documentation of respiratory "Fit Test", medical records, etc., shall be submitted prior to any work that shall be performed requiring such protection.

8.3 Protection of Utilities/Facilities

Prior to beginning any work, the Contractor shall carefully survey the existing work and examine the site for pre-existing damage. The Contractor shall document via photographs, videos, etc., any existing adjacent facilities that may be potentially affected by the work. The General Trades Contractor will provide a third party utility marking service. Contractor is to coordinate with the utility markings service prior to commencing work. Refer to Special Provisions Section 6.13 for details.

During the progress of work, Contractors shall protect any newly installed or existing utilities and shall be responsible for the repair or replacement of same if damaged by work performed under his contract or incidental thereto. Contractor shall work expediently and continuously to repair damaged utilities at no additional cost to the Owner. If a shutdown is required, the Contractor must schedule same with The Construction Manager well in advance of the needed date, so as to minimize any disruption of normal operations.

All existing and new landscape areas that require construction vehicle or equipment traffic shall have protection laid down to protect the lawn and minimize damage caused by the vehicle/equipment. Any damage caused to the landscape area shall be repaired by a landscape Contractor at the responsible Contractor's expense.

Any shoring or bracing (including removal of same) required for the completion of Contract scope is the responsibility of the Contractor needing same.

All Contractors are required to have a "competent" person on site during the performance of their work as defined by OSHA.

Contractors are not allowed to use the buildings restrooms at any time. Temporary toilets will be provided at each building for Contractor use.

8.4 Dust Protection

Each Contractor is responsible for dust control. The methods used must be submitted to The Construction Manager prior to the start of any dust-producing activities. The existing site property line is along the residential neighborhood. The Contractor is responsible to provide and maintain dust control methods along the neighboring fence/property lines (see SL-1) to mitigate any dust and/or debris that can potentially migrate off site. When truck traffic conditions produce dust, the streets must be sprinkled with water and/or swept to minimize the generation of dust. All truck wheels must be inspected, and any loose materials must be removed prior to leaving the site. The Contractors shall keep all public roads free of stone, dirt and debris.

8.5 Air pollution and Odor Control

Each Contractor shall employ measures to prevent creation of air pollution and odors that may affect the public.

8.6 Protection of the Public

In addition to the general requirements of the contract, it is the Contractor's responsibility to barricade or otherwise separate the work area from public access and/or exposure. Maintain barricades and signs in a clean and neat, graffiti free condition. Particular attention must be given to the isolation and/or protection of pedestrian and vehicular traffic at the perimeter of the Project Site. Any work that must be performed outside of the site fence must be accompanied by the appropriate protection (by the Contractor).

8.7 <u>Protection of Finished Work</u>

All Contractors are wholly responsible for the protection of finished work, both their own and that of others, as may be required to perform their work.

All finished openings used to pass materials through shall be protected if any possible damage may result from the activity.

The Contractor shall, without extra compensation, refinish all damaged surfaces resulting from their failure to protect work in place.

There will be no roof access other than that required to complete the contract work. Where activity must take place in order to carry out the Contract requirements, adequate protection shall be provided at the Contractor's expense.

Each Contractor is responsible for any damage, which in any way results from the acts of neglect of his/her employees.

Prior to material being stored on finished floor surfaces, the Contractor must obtain approval from Construction Manager. If required, a protective paper is to be installed. All traffic over these areas should use rubber tires.

8.8 Cutting and Patching

Reference Project Manual Specification 017300 – Cutting and Patching

A Contractor removing spray on fireproofing or fire stopping material after initial installation will replace or pay for necessary patching.

Contractors will "comeback" infill and patch their work after temporary utilities or openings are removed.

Submit a written notice, requesting approval to proceed, to the Construction Manager at least 48 hours in advance of executing any cutting or alteration which affects the following:

- A. Work of the Owner and/or any separate Contractor
- B. Structural value or integrity of any element of the Project.
- C. Integrity or effectiveness of weather –exposed or moisture-resistant elements or building systems.

If the Contractor provides inadequate notice, or if the proposed cutting and/or patching will compromise the Owners operations, the Owner has the right to refuse the cutting and patching as proposed without a delay claim to the contract.

The Contractor shall not damage or endanger any portion of the work of other Contractors or property of the Owner. The Contractor shall not alter the Owner's or other Contractor's work without written consent of the Owner or other Contractor. All such requests shall be made through the Construction Manager. Said consent shall not be unreasonably withheld.

If identical materials are not available or cannot be used where exposed surfaces are involved, use materials that closely match existing adjacent surfaces with regard to visual effect, consult with the Owner's representative prior to placement.

If unsafe or unsatisfactory conditions are encountered, take corrective action before proceeding. Protect existing construction during cutting and patching to prevent damage. Until provisions have been made to bypass them, take all precautions necessary to avoid cutting existing pipe, conduit, or ductwork serving the building but scheduled to be removed or relocated.

Where cutting is required use hand or small power tools designed for sawing or grinding, not hammering, and chopping. Cut holes and slots neatly to size required to minimum disturbance of adjacent surface. Temporarily cover openings when not in use. To avoid marring existing finished surfaces, best practices should be used to protect finishes (i.e., mask areas off with masking tape) and cut or drill from the exposed or finished side into concealed surfaces.

Where removal of walls or partitions extends one finished area into another: Patch and repair floor and wall surfaces in the new space to provide an even surface of uniform color and appearance; Remove existing floor and wall coverings and replace with new materials, if necessary to achieve uniform color and appearance.

Where patching occurs in a smooth painted surface, extend final paint coat over entire unbroken surface containing the patch, after the patched area has received primer and second coat; Patch, repair, or re-hang existing ceilings as necessary to provide an even plane surface of uniform appearance.

The Contractor will follow all applicable regulatory hot and safe work procedures when performing welding, cutting, torching, grinding, brazing, or tacking, including protecting personnel and the adjacent work area from fire hazards. Store paints, varnishes, volatile oils, and similar combustible materials in properly labeled storage containers and in storage area as required by law. Storage of gasoline and other volatile flammable liquids shall be in properly labeled storage containers and in storage area as required by law.

8.9 Perimeter Protection

It is the responsibility of each Contractor(s) to provide any perimeter fall protection as required by OSHA.

The <u>General Trades Contractor</u> shall provide and maintain perimeter protection around the full perimeter of the excavated areas, trenches, etc. as required by OSHA. Protection shall be installed 100% prior to completing the excavations and

maintained until the areas are backfilled and permanently closed. Contractor shall provide manpower to inspect and repair perimeter protection and barricades weekly to ensure the fencing, gates and barricades are fully secure and operational.

It is the responsibility of each Contractor(s) to provide full perimeter fall protection as required by OSHA on the roof of each building when performing their work. This fall protection must be in place prior to commencing work.

8.10 Traffic Control

Each Contractor shall provide a flag person as needed when large material deliveries enter and exit the job site. Provide temporary traffic control barriers to ensure safety of all persons and property in accordance with NYSDOT.

8.11 OSHA Silica Standards

All Contractors shall perform work in compliance with OSHA's Respirable Crystalline Silica Standard for Construction (29 CFR 1926.1153) as it relates to protection of the workforce, building occupants, and the public at all times.

9.0 SUBMITTALS AND SHOP DRAWINGS

9.1 General Submittal Information

In addition to the information below, refer to Specification Section 01330 for additional submittal requirements.

A submittal log will be made available electronically online via the Procore web based document management program. All Contractors are required to submit any modifications to the submittal log to The Construction Manager Contractors are to supply date of submittal delivery, and include date required on jobsite (ROJ) and material lead-times. These are to be provided within Fifteen (15) working days from notice to proceed.

All Contractors are required to make prompt submissions of all Shop Drawings and/or samples in such a sequence so that the material and/or equipment can be reviewed by the Architect/Engineer and returned as soon as possible so as not to delay job progress. No extension of Contract Time will be authorized because of Contractor's failure to comply with the approved submittal schedule or failure to transmit submittals to Architect sufficiently in advance of the Work to permit processing.

Delays caused by failure to submit Shop Drawings and computations in a timely manner are the responsibility of the Contractor. No additional time will be allowed the Contractor for delays caused by an excess number of re-submittals. Contractor is responsible for A/E and CM costs after (3) submission attempts.

All submittals must have a submittal coversheet and be accompanied with a letter of transmittal. Any deviation from the plans or specifications must be noted on the transmittal and on the item submitted for approval. Deviations from Contract Documents require clear indication (clouded or circled) on the submittal and specific written acceptance by the Architect of the noted deviation.

Where printed, Product Data includes information on several products, some of which are not required, mark (flag or circle) copies to indicate the applicable information.

All submittals are to be <u>sent electronically to Trowbridge and to the Construction</u>

<u>Manager simultaneously. Documents shall be searchable, printed in PDF format and uploaded to the web based document management program (Procore).</u> All submittals must be transmitted electronically All product literature and shop drawings will be in original, electronic formats (from manufacturer's websites, etc.).

Physical Samples - All physical samples are to be sent directly to Trowbridge. A photo of the sample submitted shall be taken and attached to a coversheet and shall be simultaneously sent electronically via web based document management program (Procore) for tracking purposes.

As a minimum provide:

- 1. Product Data and Manufacturer's Instructions submit copies as detailed in specification sections 013300
- 2. Samples submit copies as detailed in specification section 013300.
- 3. Samples for Selection- submit copies as detailed in specification section 013300.
- 4. Samples for Verification- submit copies as detailed in specification section 013300.
- 5. Shop drawings submit copies as detailed in specification section 013300.

Each Contractor is responsible for the reproduction, distribution and coordination of all submittal materials to other Contractors and their own subcontractors.

It is the Contractor's obligation, upon submitting a Shop Drawing or a sample, which involves a change in contract price, which is not covered by specific authorization, to include with their submission a request for a change with an estimate of the cost of the change. Approval of a drawing or sample is not to be interpreted as an approval or agreement of a change in contract price or recognition of a claim for a change in contract price.

Do not permit submittals marked "Rejected, and/or "Revise and Resubmit" to be used.

9.2 M/E/P Coordination Drawings

Provide all coordination drawings that are required per the contract documents and specifications.

9.3 <u>As-Built Drawings</u>

In addition to the requirements of Specification Section 017700, each Contractor is required to maintain an up to date set of as-built drawings and to provide one set of these to The Construction Manager at the completion of his work. These as-built drawings shall be available for inspection at all times by the Construction Manager. The as-builts will be progress inspected at 35%, 70% and Completion. If the as-built drawings are not kept up to date, The Construction Manager shall have the right to withhold payment until the as-built drawings are brought up to date. If the as-built drawings are brought up to date.

Coordinate construction changes, Change Order numbers, RFI numbers and similar identification. Give particular attention to information on concealed elements, which would be difficult to identify or measure and record later. Items required to be marked include but are not limited to:

a. Dimensional changes to the Drawings;

- b. Revisions to details shown on the Drawings;
- c. Depths of foundations below the first floor;
- d. Locations and depths of underground utilities;
- e. Revisions to routing of piping and conduits;
- f. Revisions to electrical circuitry;
- g. Actual equipment locations;
- h. Duct size and routing;
- i. Locations of concealed internal utilities;
- j. Changes made by Change Order;
- k. Details not on original Contract Drawings;
- 1. Update of all room numbers on Drawings and in Specifications to reflect current Building number designations.

Mark record sets with "RED" erasable colored pencil; use other colors to distinguish between changes for different categories of the Work at the same location.

Final as-builts shall be COLOR scanned into a PDF file and all electronic files turned over on a USB Jump Drive as well as the required hard copies. At a minimum as-built turn over shall consist of three (3) USB Jump Drive's and one (1) full size drawing set. Sheet size shall be 32"x48". The file labels shall be the sheet numbers of the drawings. Any posted sketches on the back of each pages shall be scanned and labeled the as the same sheet with the suffix "a".

10.0 PAYMENT PROCEDURES

10.1 Payment Program

Within (15) working days of Notice to Proceed, all Contractors are to submit a detailed breakdown (schedule of values) of his costs for approval to The Construction Manager. Breakdown shall to a level of detail to expedite the reviewing process. The Construction Manager reserves the right to direct a larger breakdown. See Item 3.3 of the Special Provisions.

The schedule of values will be reviewed and adjusted if necessary. Once approved the schedule of value is to be used for the AIA request for payment application. Only the AIA pay application forms G732CMa and G703 will be recognized for billing purposes.

Billing for stored material will be subject to prior written approval by the Owner and The Construction Manager. Proof of insurance for items stored off site, copies of the Bill of Sale and copies of the invoices for the materials being billed are to be provided to the Construction Manager with the Application for Payment requesting payment for the stored materials NO EXCEPTIONS. The Construction Manager's visual inspection and photographs of materials is required. Reference the AIA 232.

A draft (pencil) copy of the Application for Payment shall be presented to The Construction Manager no later than the 20th day of the month for the period through the end of the month. The Construction Manager will acknowledge agreement with or will provide required changes. The contractor is to send four originals (finals) back to The Construction Manager by the last working day of the month for processing. Failure of The Construction Manager to respond by the 25th day of the month will not constitute agreement. Payment application shall only include work completed to the end of the month.

Submit final Applications for Progress Payment, notarized with original signatures, containing all corrections as indicated by The Construction Manager, shall be presented to The Construction Manager no later than the 25th day of the month in quadruplicate. Progress payments and Final applications must be accompanied by Contractor Payment Affidavit, Partial Waiver of Liens, sub-contractor waivers and Certified Payroll for each application for payment from all subcontractors, vendors or suppliers for work through the previous billing period.

Applications shall be submitted by the Construction Manager to the Architect and Owner for final approval by the first (1st) working day of the month. Contractors shall receive payment no later than 45 days from receipt of final applications. All funds will be dispersed by Erie Canal Harbor Development directly to the Contractors.

All deposits and prepayments are the responsibility of each Contractor. Interim waivers of lien and certified payroll records are required for Prime Contractor, subcontractors, vendors, and suppliers with each monthly application for payment. Certified Payrolls are to be submitted directly to ECHDC.

10.2 Changes in the Work

In addition to the requirements of the General Conditions, regarding changes in the work, the following shall also apply.

If the Construction Manager and Contractor are unable to agree on entitlement to, or on the amount or extent, if any, of an adjustment in the Contract Price or Contract Times, or both, that should be allowed as a result of a Work Change Directive, the Contractor must notify The Construction Manager in writing the nature of the dispute and must, if so directed, proceed to complete the change on a time and material basis; Refer to Construction agreement Article 8 – section 8.2 item 4. The following defines in greater detail the requirements for time and material work performed on this project.

Time and material tickets must be submitted daily for a signature by an authorized Construction Manager Representative within 24 hours of performing the work. No overhead or profit will be paid on additional wages paid for overtime work or standby work (contract work). Signed T & M tickets must be submitted for invoicing within 30 days after work is completed. All invoices are to include an itemized breakdown for material and labor. Submit T & M invoices for extra work to The Construction Manager's Project Superintendent and Project Engineer simultaneously.

Changes to the work cannot be billed until the Architect issues a contract change order and has been executed by all parties.

Also see Specification Section 012600, Changes to the Contract for additional procedures and requirements.

10.3 Formula For Changes

Percentage Markup and Procedures Applicable to Work Added to or Omitted from the Original Agreement. Refer to Construction agreement article 8, section 8.2 item 4.

<u>Lump Sum</u>: Predetermined Lump Sum additions and/or deletions to the Agreement are to be based upon the estimated "Net Actual Cost", plus the maximum percentages indicated in the Construction Agreement article 8, section 8.2 item 4.

General:

- Submission of lump sum estimates and costs shall be itemized in a form satisfactory
 to The Construction Manager to permit ready analysis and evaluation. On Time &
 Material Work, daily reports to duplicate showing all field and shop labor expended
 and/or material delivered, shall be submitted to The Construction Manager's Job
 Staff. Invoices shall be submitted monthly.
- 2. No overhead & profit will be permitted on the premium time portion of overtime work. Percentages shall apply to net difference in quantities for adds and deducts in any one change
- 3. Percentages applied by sub-contractors for labor and material shall not exceed those of Contractors.
- 4. "Net Actual Cost" defined:
 - a. Labor
 - 1. Wages of labor, including foreman and general foreman, engaged in this work and directly on Contractor's payroll.
 - 2. Engineering and drafting performed with The Construction Manager's prior approval.
 - 3. Fringe Benefits established by governing trade organizations.
 - 4. Federal Old Age Benefits, Federal and State Unemployment Taxes.
 - 5. Net actual premium paid for Public Liability, Workman's Compensation, Property Damage, and any other forms of insurance required by the Owner.

b. Material

- 1. Net cost of construction materials and supplies delivered to site, including applicable Sales and/or Use Taxes, transportation costs, trade and cash discounts. (Note: Sales Tax is not applicable to transportation costs).
- 2. Costs of a special nature, approved in advance by the **Owner**, such as for riggers, labor transportation, equipment rentals, royalties, permits and other expenses of this nature.
- 5. Percentages shall include the following overhead costs:
 - a. Supervision & Executive Expenses (both field and office supervision).
 - b. Small tools; incidental scaffolding, blocking, shores; appliances; Contractor's trucks and driver, etc; and the expense of maintaining same.
 - c. Administrative expenses clerical, accounting, etc.; both at the Project and the Contractor's office.
 - d. Project Managers, Engineering costs, Shop Drawings, Proposal Preparation Review, Expediting Costs, etc.
 - e. Taxes required to be paid by the Contractor, but not included under the aforementioned "Net Actual Cost".
 - f. Any other miscellaneous general conditions necessary to complete the Change Order.
- 6. Percentages shall include all profit.
- 7. Cost of Bonds, if applicable, are not included in the above percentages (i.e. no overhead and profit is allowed on bond cost). Bonds costs shall be identified as a separate line item on each change order. Proof of bond rates from the bonding

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company is required prior to payment for additional bond costs. Bond rates for changes are to be provided in a "percent" formula (i.e.: Bond Cost = 2.0%)

10.4 <u>Access to Accounting Records</u>

The Contractor shall check all materials, equipment and labor entering into the Work and shall keep such full and detailed accounts as may be necessary for proper financial management under this Agreement and the system shall be satisfactory to the Owner. The Owner or its representative shall be afforded access to all the Contractor's records, books, correspondence, instructions, drawings, receipts, vouchers, memoranda and similar data relating to the contract, and the Contractor shall preserve all such records for a period of three years, or for such longer period as may be required by law, after the final payment.

10.5 Final Payment Procedure –

<u>Refer to Construction Agreement Article 4, section 4.7</u> – Items called for in 4.7 (a) item 3, "other documents or expressly specified in the contract documents " include but are not limited to the following:

- A. Acceptance by The Construction Manager, Architect and Owner of written warranties and maintenance agreements.
- B. Acceptance by the Construction Manager and Architect of Record Drawings and "As-builts."
- C. Delivery to The Construction Manager of all satisfactory Waiver of Liens upon Final Payment and Guarantee(s).
- D. Delivery to The Construction Manager of a complete list of Sub-contractors and principal vendors with contact name, number and address. Include any applicable account numbers that shall be referenced at time of warranty request.
- E. Delivery to The Construction Manager of a complete file of Operations, Training, and Maintenance Manuals.
- F. Delivery to The Construction Manager of Consent of Surety to reduce and/or release retention.
- G. Relief to Owner of attic stock and "extra" materials.
- H. Delivery to The Construction Manager proof that all taxes, fees, and similar obligations have been paid in full.
- I. Acceptance by The Construction Manager, Architect and Owner that all construction equipment, material, etc. has been removed from project site.
- J. Acceptance by The Construction Manager, Architect and Owner of final clean-up.
- K. Submit Final Payment original of the Application for Payment to The Construction Manager along with AIA Documents: G706 "Contractor Affidavit of Payment of Debts and Claims, G706A "Contractor Affidavit of Release of Liens and G707 "Consent of Surety to Final Payment".

11.0 JOB CLOSE-OUT PROCEDURES

See also Project Closeout Section 017700 in the Project Manual

11.1 Punchlist

Upon substantial completion of a major work area and prior to the Owner taking possession of the space, the Architect will conduct a punch list inspection upon written notification by the Prime Contractors requesting such. The project team will be employing the use of electronic punch list system to generate and complete the punch list. All Contractors shall be required to utilize an online Work to Complete/Punch List program (i.e. Procore, etc.). After receiving a copy of this punch list, the Contractor shall complete corrective action on all items within Twenty (20) working days of issuance. When all punch list items have been completed, the contractor shall be required to log in to electronic punch list system to report when the issues have been completed and ready for inspection. The AE / CM will complete a final inspection for verification. Once the job and the area have been accepted by the AE, The Construction Manager and the Owner, final payment procedures will commence.

11.2 Contract Closeout

Before requesting inspection for certification of Substantial Completion, complete the following, and list exceptions in the request. In the Application for Payment that coincides with, or first follows, the date Substantial Completion is claimed, show 100% completion for the portion of the Work claimed as substantially complete. Include supporting documents for completion as indicated in these Contract Documents and a statement showing an accounting of changes to the Contract Sum.

If 100% completion cannot be shown, include a list of incomplete items, the value of incomplete construction, and reasons the Work is not complete. Advise the Construction Manager of pending insurance changeover requirements. Submit specific warranties, workmanship bonds, maintenance agreements, final certifications, lien releases, and similar documents. Obtain and submit releases enabling the Owner unrestricted use of the Work and access to services and utilities; include occupancy permits, operating certificates and similar releases. Deliver tools, spare parts, extra stock, and similar items. Advise the Owner's personnel of changeover in security provision.

Complete start-up testing of systems, and instruction (training) of the Owner's operating and maintenance personnel. Discontinue or change over and remove temporary facilities from the site, along with construction tools, mock-ups, and similar elements. Where extra materials of value remaining after completion of associated Work have become the Owner's property, arrange for disposition of these materials as directed. Complete final clean up requirements, including touch-up painting as required.

11.3 Operation and Maintenance Data

The manual shall flag significant points to be observed or attended with the words "Attention:" and hi-lite the issue. Where operation poses hazard or risk to the operator, staff, or the facility, the point shall be flagged with the word "Warning:" and hi-lite the main text pertaining to the hazard. The procedures shall also clearly indicate the limits of work, which may be performed by other than manufacturers or installers' personnel during the warranty period without violating equipment warranties. Contractor shall submit the specified copies. See also Specification Section 017823 for further requirements.

All O&M manuals shall be provided in a ".pdf" format, bookmarked, with a hyperlinked table of contents on the first page. This requirement supersedes the specifications.

11.4 Warranties

In addition to Section 017700, Warranties specified in the individual Specification Sections

are in addition to and not a limitation of other rights the Owner may have against the Contractor under the Contract Documents. In all cases, periods of warranties and guaranties shall not commence until the item being warranted or guaranteed is accepted and considered complete.

Manufacturer's disclaimers and limitations on product warranties do not relieve the Contractor of the warranty on the Work that incorporates the products, nor does it relieve suppliers, manufacturers, and/or subcontractors required to countersign special warranties with the Contractor

Each Contractor is required to provide the extended warranties for all equipment/materials that has been turned over and accepted by the Owner for use regardless of the phased completion of the project.

END OF SPECIAL PROVISIONS

SECTION 011100A - MILESTONE SCHEDULE

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. The Contract Documents, including but not limited to, the Drawings and individual Specification Sections and Bid Milestone Schedule Table, apply to this Section.

1.2 SUMMARY

- A. This is a Multiple Part Prime Contract therefore the General Trades Contract BP-02 is responsible to compile the schedule and documentation requirements outlined in this Section 011100A, HVAC BP-03, Electrical BP-04 and Site BP-01 must coordinate their scope of work schedules with the GT BP-02 for input into the overall project schedule. The terms "contractor" and "CPM" are interchangeable in this Section 11100A.
- B. Section includes administrative and procedural requirements to plan, schedule and document the progress of construction during the performance of the Work, including the following:
 - 1. Critical Path Method (CPM) schedule and reports.
 - 2. Material location reports.
 - 3. Field condition reports.
 - 4. Special reports.

C. Related Sections:

- 1. Summary of Work, for preparing a combined CPM Schedule.
- 2. Submittal Procedure, for submitting schedules and reports.
- 3. Quality and Code Requirements, for submitting a schedule of tests and inspections.

1.3 DEFINITIONS

- A. Project: Work at the Site carried out pursuant to one or more Contracts.
- B. Activity: A discrete part of the Contract that can be identified for planning, scheduling, monitoring, and controlling the Project. Activities included in a CPM schedule consume time and resources.
 - 1. Critical Activity: An activity on the critical path that has no total float.
 - 2. Predecessor Activity: An activity that precedes another activity in the network.
 - 3. Successor Activity: An activity that follows another activity in the network.
- C. Bid Milestone Schedule: Interim milestones, included in the Contract Documents, which the Contractor utilizes to formulate the Baseline Schedule.

- D. Baseline Schedule: Initial schedule, prepared by the Contractor, to complete the Work of the Contract in accordance with the Contract duration and starting point to which schedule updates are compared.
- E. CPM: Critical Path Method is a scheduling method used to plan and schedule construction projects where activities are arranged based on activity relationships creating a time scaled network diagram.
- F. PDM: Precedence Diagram Method follows the standard CPM calculations and allows for special logic relationships creating an interdependent relationship throughout the network.
- G. Critical Path: The longest connected chain of interdependent activities through the network schedule that establishes the minimum overall Project duration and contains no total float.
- H. Data Date: The date when the status of the CPM schedule is determined, showing the calendar start date for the update period.
- I. Float: The measure of leeway in starting and completing an activity.
 - 1. Float time is for the exclusive use or benefit of the Owner, expiring Project resource available as needed to meet schedule milestones and Substantial Completion date.
 - 2. Free float is the amount of time an activity can be delayed without adversely affecting the early start of the successor activity.
 - 3. Total float is the measure of leeway in starting or completing an activity without adversely affecting the planned Substantial Completion date.

1.4 INFORMATIONAL SUBMITTALS

- A. Format for Submittals: Submit required submittals in both electronic (PDF) file format and as electronic backup file in native software format.
- B. CPM Schedule: Schedule, of size required to display entire schedule for entire construction period.
 - 1. Submit a working electronic copy of schedule, using software indicated, and labeled to comply with requirements for submittals. Include type of schedule (baseline or updated) and date on label. No single activity shall be longer than 15 days, if so, the line item must be broken down into multiple activities.
- C. CPM Reports: Concurrent with CPM schedule, submit each of the following reports. Format for each activity in reports shall contain; activity ID number, activity description, original duration, remaining duration, actual duration, early and late start and finish dates and total float in calendar days.
 - 1. Activity Report: List of all activities sorted by early or actual start date in each phase, area and level following the physical divisions of the Work.
 - 2. Short Term Activity Report: Lists all activities occurring from the update data date in a two month forward and one month back window.

- 3. Logic Report: List of preceding and succeeding activities for all activities, sorted in ascending order by early or actual start date. Include activity ID number and float path(s).
- 4. Total Float Report: Provide a cumulative list of total float from each update period with comments associated to any and all variances.
- 5. Procurement Report: List all procurement activities sorted in order of the item being procured.
- 6. Narrative Report: The project scheduler shall describe the nature of the submission, interpretation of calculations, issues affecting progress and a milestone analysis comparing progress against the baseline and update schedules.
- D. Material Location Reports: Submit at monthly intervals.
- E. Field Condition Reports: Submit at time of discovery of differing conditions.
- F. Special Reports: Submit at time of unusual event.
- G. Qualification Data: For project scheduler.

1.5 QUALITY ASSURANCE

- A. Project Scheduler Qualifications: An experienced specialist in CPM scheduling and reporting, with capability of producing CPM reports and diagrams within timeframes requested by the Owner. The project scheduler shall have or be able to obtain certification as a Planning and Scheduling Professional (PSP) or have a minimum of five years of demonstrated experience scheduling large capital projects.
- B. Prescheduling Conference: The Owner may conduct conference at the Project site to comply with the following requirements. Review methods and procedures related to the Baseline Schedule and the CPM schedule, including, but not limited to, the following:
 - 1. Review software limitations and content and format for reports.
 - 2. Verify availability of qualified personnel needed to develop and update schedule.
 - 3. Discuss coordination, including phasing, work stages, area separations, interim milestones and Beneficial Occupancy. (items later to be discussed in a Pull Plan Session)
 - 4. Review delivery dates for Owner-furnished products.
 - 5. Review schedule for work of Owner's separate contracts.
 - 6. Review time required for contractor submittals and resubmittals.
 - 7. Review requirements for tests and inspections by independent testing and inspecting agencies.
 - 8. Review time required for completion and startup procedures.
 - 9. Review and finalize list of construction activities to be included in schedule.
 - 10. Review submittal requirements and procedures.
 - 11. Review procedures for updating schedule.

1.6 COORDINATION

- Coordinate preparation and processing of CPM schedules and reports with the performance of A. the Work (BP-01 through BP-04) and with CPM scheduling and reporting of separate Contractors. ECHDC CM shall have final approval over the project schedule layout, activities and sequence.
 - Coordinate new Baseline Schedules and CPM schedule updates with ECHDC CM, 1. separate Contractor's, and additional Contracts that are executed during the entire duration of the Project.
- Coordinate CPM schedule with the Contractor's Submission Schedule, progress reports, and B. other required schedules and reports.
 - 1. Coordinate each construction activity in the network with other activities and schedule them in proper sequence.

PART 2 - PRODUCTS

2.1 CRITICAL PATH METHOD SCHEDULE, GENERAL

- Bid Milestone Schedule: The Owner shall provide a Bid Milestone Schedule, which is attached A. to this section as a template for the Baseline Schedule. Nothing in the Bid Milestone Schedule, Baseline Schedule or CPM schedule shall preclude the Contractor from advancing the Work of the Contract.
 - 1. The program will be turned over using the P6 software platform from Oracle. Include milestones indicated in the Contract Documents in Baseline Schedule, including, but not limited to, the Notice to Proceed, Procurement Complete, Submittals complete, Mockups, Major Pre-installation meetings, Site Clearing complete, Foundations Complete, Start Structural Steel, Steel and metal decking complete, building dry-in, All temporary requirements (water/electric), permanent power available, commissioning, final cleaning, other interim milestones, Substantial Completion, and Contract close-out.
 - 2. Substantial Completion date shall not be changed by submission of a schedule that shows an early/late completion date, unless approved by the Owner, via a separate written request by the Contractor (BP-01 – BP-04).
 - No time for weather will be apportioned for foreseeable occurrences in a specific regional 3. area. The Contractor shall be responsible to determine reasonable averages and make allowances in the performance of the Work. In the event there is a rain day M-F, it is a requirement that the contractors work the Saturday as a make-up day, without premium.
 - 4. Each milestone noted shall be broken down into the 4 separate prime contractors if applicable.
- B. Activities: Treat each numbered activity as a consumable resource for each principal element of the Work. Comply with the following:
 - Activity Duration: Define activities so no activity is longer than 15 days, unless specifically 1. allowed by the Owner.
- Procurement Activities: Include procurement process activities for long lead items and 2.

- major items, requiring a cycle of more than 30 days, as separate activities in schedule. Procurement cycle activities include, but are not limited to, submittals, approvals, purchasing, fabrication, and delivery.
- 3. Submittal Review Time: Include review and resubmittal times indicated in the specifications in the schedule. Coordinate submittal review times in the CPM schedule with dates entered in the Contractor's Submission Schedule.
- 4. Herbaceous Materials: Include not less than 15 days to allow for material to germinate, with approval from the landscape architect.
- 5. Mock-ups: Include not less than 5 days for construction, review and approval of mockups.
- 6. Startup and Testing Time: Include not less than 15 days for startup and testing.
- 7. Substantial Completion: Indicate completion on the date established for Substantial Completion, and allow time for the Owner's administrative procedures necessary to execute the Notice of Substantial Completion (NOSC).
- 8. Punchlist Work items and Contract Closeout: Include not more than 30 days for incomplete Work items and Contract Closeout Requirements.
- C. Constraints: Include constraints and work restrictions indicated in the Contract Documents, or approved by the Owner or ECHDC CM prior to use and show how date constraints affect the sequence of the Work.
 - 1. Construction Areas: Identify each major area of construction for each major portion of the Work. Indicate where each construction activity within a major area must be sequenced or integrated with other construction activities.
- D. Upcoming Work Summary: Prepare summary report for review by ECHDC CM showing activities scheduled to occur or commence prior to submittal of next schedule update.
- E. Recovery CPM Schedule: When periodic update indicates the Work is 15 or more calendar days behind the current approved CPM schedule, BP-02 (in coordination with all other prime contracts) submit a separate recovery CPM schedule indicating means by which the responsible Contractor intends to regain compliance with the CPM schedule. Indicate changes to working hours, working days, crew sizes, and equipment required achieving compliance, and dating by which recovery will be accomplished, subject to Owner's approval.
- F. Computer Scheduling Software: Prepare CPM schedules using current version of a program that has been developed specifically to manage CPM schedules and interface with the Owner's electronic file of the Bid Milestone Schedule.
 - 1. Utilize Primavera P6 Primavera Project Planner operating system.

2.2 CRITICAL PATH METHOD SCHEDULE (CPM SCHEDULE)

- A. Baseline Schedule: Prepare schedule using a time-scaled PDM network diagram representing the Work of the Contract. Total float time shall be equal to or greater than zero in the Baseline Schedule.
 - 1. Submit Baseline Schedule within 25 days of the date established for the Notice to Proceed. Outline significant construction activities. Include skeleton diagram for the remainder of the Work based on indicated activities.

- a. Failure to include any work item required for the performance of the Work shall not excuse any prime Contractor from completing the Work of the Contract within applicable completion dates, regardless of the Owner's approval of the schedule.
- B. CPM Schedule: Prepare contemporaneous schedules using a time-scaled PDM network for sequencing the Work and showing the progress of the Work.
 - 1. Establish procedures for monitoring and updating the CPM schedule and for reporting progress. Coordinate procedures with the progress meeting and payment request date.
 - 2. BP-02 shall coordinate the Work occurring concurrently through the integration of other Contractors Baseline Schedules (BP-01, 03 & 04) into the CPM schedule.
 - 3. Use "one workday" as the unit of time for individual activities. Indicate nonworking days and holidays incorporated into the schedule in order to correlate with Contract durations.
 - a. Utilize a 5 day work week calendar.
- C. CPM Schedule Preparation: EACH PRIME CONTRACTOR shall prepare a list of all activities required to complete the Work of the Contract. At minimum, each individual specification section, including General Requirement sections, as indicated in the Project Manual, shall be listed as an activity.
 - 1. Activities ID: Provide a unique identifier to each activity. No activity ID shall be recycled or reused.
 - a. Site Work shall Start with SW-XXXXXX
 - b. General Trades Work shall start with GT-XXXXXX.
 - c. HVAC/Plumbing Work shall start with HP-XXXXXX.
 - d. Electrical Work shall start with EL-XXXXXX.
 - 2. Activities: Indicate the estimated time duration, sequence requirements, and relationship of each activity in relation to other activities. Include estimated time frames for the following activities:
 - a. Preparation and processing of submittals (allow 10 days).
 - b. Mobilization and demobilization.
 - c. Purchase of materials.
 - d. Delivery.
 - e. Fabrication.
 - f. Utility interruptions.
 - g. Installation.
 - h. Work by Owner that may affect or be affected by the Contractor's activities.
 - i. Testing and commissioning.
 - j. Incomplete Work items and Contract closeout.
 - 3. Actual Activity Dates: Once an activity has been assigned an actual date of occurrence, the status of that activity shall not change. Any change to actual dates must be accompanied with supporting data and approved by the Owner or ECHDC CM. No actual start date shall occur ahead of the data date.
 - 4. Critical Path Activities: Identify critical path activities, including those for interim completion dates. Scheduled start and completion dates shall be consistent with the Bid Milestone Schedule dates.
 - 5. Processing: Process data to produce update status on P6 Platform. Revise data, reorganize activity sequences, and reproduce as often as necessary to produce the CPM schedule

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within the limitations of the Contract duration.

- 6. Calculations: The schedule network shall be calculated allowing activities to retain their original logic. Progress override shall not be used when calculating the network status.
- 7. Logic: Leads and lags will not be used when the creation of an activity will perform the same function. <u>Lag durations contained in the schedule shall not have negative value</u>. Lead and lag durations shall not exceed the durations of the activity they are assigned.
 - a. There shall be only two open ended activities; (1) Notice to Proceed, with no predecessor logic, and (2) Final Payment, with no successor logic. All intermediate activity logic shall be connected.
 - b. Out of sequence activities that have progressed before all preceding logic will be allowed only on a case by case basis, as approved by the Owner or ECHDC CM. Each Prime Contractor shall propose logic corrections to eliminate all out of sequence progress and correct out of sequence progress that continues for more than two update cycles by logic revisions, as approved by the Owner or ECHDC CM.
- 8. Float: The Owner shall reject the schedule and schedule updates for the use of float suppression techniques such as preferential sequencing, special lead lags logic constraints, zero total or zero free float constraints, extended activity times, or imposing constraint dates other than what is required by the Contract.
 - a. The use of resource leveling used for the purpose of artificially adjusting activity durations to consume float and influence the critical path is prohibited.
 - b. A schedule showing work completing in less time than the Contract duration and accepted by the Owner, will be considered to have float.
 - c. Any float generated during the performance of the Work, due to efficiencies of the any Prime Contractor is not for sole use of the party generating the float.
 - d. Negative float will not be a basis for requesting time extensions and will not be construed as a means of acceleration or schedule extension.
- 9. Format: Follow the applicable individual specification sections of the Work as the bases for the content of the CPM schedule. BP-02 Shall organize the CPM schedule to provide the necessary detail for each area, level, quadrant and section as needed in the performance of the Work.
- D. Changes in the Work: For each proposed change and concurrent with its submission, Each Prime shall prepare for input by BP-02, a time-impact analysis using a network fragment to demonstrate the effect of the proposed change on the overall CPM schedule (for any change larger than \$30,000 and longer than 15 days).
- E. Schedule Updating: Concurrent with making revisions to schedule, prepare tabulated reports showing the following:
 - 1. Identification of activities that have changed, including the reason each adjustment was necessary.
 - 2. Changes in early and late finish dates.
 - 3. Changes in activity durations in workdays.
 - 4. Changes in the critical path.
 - 5. Changes in total float or slack time.
 - 6. Changes in the duration for Substantial Completion.

2.3 REPORTS

- A. Material Location Reports: At monthly intervals, Each Prime Contractor shall prepare and submit a comprehensive list of materials delivered to and stored at Project site. List shall be cumulative, showing materials previously reported plus items recently delivered. Include with list a statement of progress on and delivery dates for materials or items of equipment fabricated or stored away from Project site.
- B. Field Condition Reports: Immediately on discovery of a difference between field conditions and the Contract Documents, Each Prime Contractor shall prepare and submit a detailed report. Submit with a Request for Information. Include a detailed description of the differing conditions, together with recommendations for changing the Contract Documents.

2.4 SPECIAL REPORTS

- A. General: Submit special reports directly to ECHDC CM within one day of an occurrence. Distribute copies of report to parties affected by the occurrence.
- B. Reporting Unusual Events: When an event of an unusual and significant nature occurs at Project site, whether or not related directly to the Work, Each Prime Contractor shall prepare and submit a special report. List chain of events, persons participating, and response by Contractor's personnel, evaluation of results or effects, and similar pertinent information. Advise the ECHDC CM in advance when these events are known or predictable.

PART 3 - EXECUTION

3.1 CPM SCHEDULE

- A. BP-02 General Trades: Engage a person skilled in construction planning and scheduling to provide planning, scheduling, evaluation, and reporting services using CPM scheduling.
 - 1. External Option: The Owner may waive the requirement if Contractor employs skilled consultant with experience in CPM scheduling and reporting techniques. Submit qualifications.
 - 2. Meetings: BP-02 staff person responsible for project schedule shall attend all meetings related to the Project progress, alleged delays, and time impact.
- B. CPM Schedule and CPM Reports Updating: At the 20th of each month BP-01, BP-03 & BP-04 shall provide updates to BP-02. General Trades BP-02 shall provide a complete update schedule to reflect actual construction progress and activities by the 30th of each month.
 - 1. Include CPM reports with updated schedule that indicates every change, including, but not limited to, changes in logic, durations, actual starts and finishes, and activity durations.
 - 2. As the Work progresses, indicate final remaining duration for each activity.
- C. Distribution: Submit one electronic copy, in pdf format, to the ECHDC CM and distribute copies

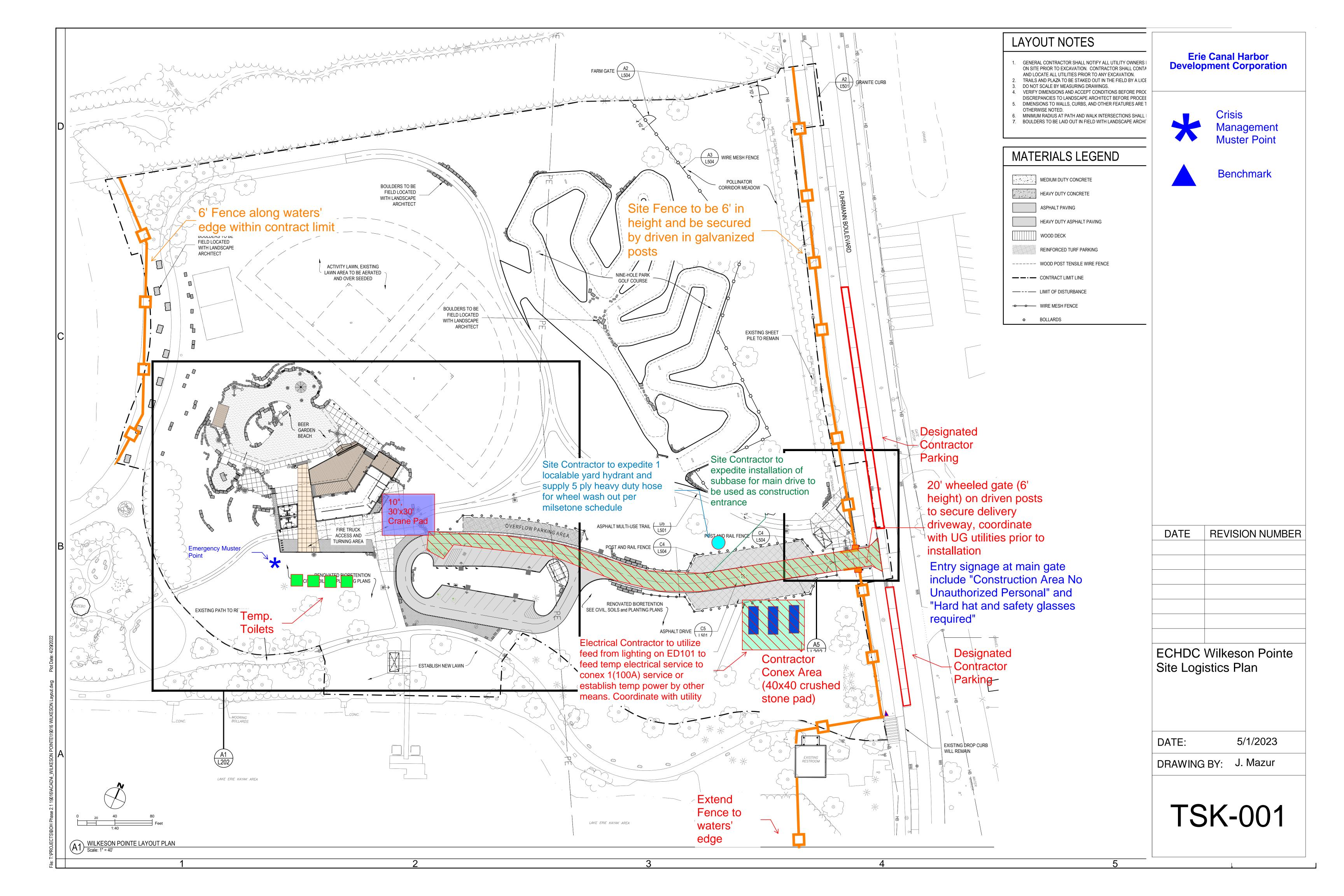
of approved schedule and reports to the separate prime contractors, and other parties identified by the Owner with a need-to-know schedule responsibility.

- 1. Post copies in Project meeting rooms and temporary field offices.
- 2. When revisions are made, distribute updated schedules and reports to the same parties and post in the same locations. Delete parties from distribution when they have completed their assigned portion of the Work and are no longer involved in performance of construction activities.

3.2

LIST OF PROJECT MILESTONES		
A. PRECONSTRUCTION		
1.	Pre-Proposal Meeting	May 18, 2023
2.	Prime Contractor Question Deadline	May 20, 2023
3.	Response Deadline	May 25, 2023
4.	Bids Due	June 8, 2023
5.	Review Lowest Responsible Bidder	June 15,2023
6.	ECHDC Board & Contract Approval	June 18 2023
B. CONSTRUCTION		
1.	Mobilization	Sept. 1, 2023
2.	Site Clearing Complete	Oct. 15, 2023
3.	Temp. Access and delivery road	Sept 15, 2023
4.	Trailer area – pad & temporary utilities complete	Sept 15, 2023
5.	Temp Electric Established	Mar 28, 2024
6.	Start Foundations to Bldg.	Mar. 20, 2024
7.	Building Foundations complete	Oct 30, 2024
8.	Rough grading and underground drainage complete	May 14,2024
9.	Steel Erection Complete	May 12, 2024
10.	All Foundations Complete	May 15, 2024
	Comfort Station/Restaurant - Exterior Wall/Roof Complete	June 2, 2024
12.	Wood Decking & Handrails Complete	Aug 21, 2024
13.	All Site Lighting Complete	Sept 1, 2024
14.	\mathcal{E}	Sept 15, 2024
	Comfort Station/Restaurant Interior Finishes	Aug 30, 2024
15.	Landscape – stone and "Beach sand" install complete	Sept. 28, 2024
	Commission MEP Systems complete	Sept 18, 2024
17.	Kitchen Equipment Installation	Sept 20, 2024
17.	Landscape Plantings Complete	Oct 28, 2024
18.	1	Oct 1, 2024
	Punchlist Complete	Nov 1, 2024
20.	All Closeout Submissions Complete	Dec 1, 2024

END OF SECTION 011000A MILESTONE SCHEUDLE



BP-01 SITE WORK CONTRACTOR

1. Scope of Work:

The Work of this Agreement shall include, but not be limited to, all labor, materials, tools, equipment, plant, supplies, shop drawings, layout, transportation, supervision, contributions, insurance compliance with all agencies (City, County, State and Federal as may be required), and shall cover all other items necessary for the performance of the **Site Work** as shown detailed and/or implied by the following documents and as defined herein. This requisition is intended to supplement the Contract Specifications and drawings and must be used in coordination with these documents to fully understand the Scope of Work. Requirements given in one area thus are applicable to all. This requisition does not repeat scope requirements given in the Contract Documents but clarifies and coordinates the work. Work in the Documents repeated here is for specific coordination purposes. The scope of your work is generally defined as all work included in specification sections: Division 0, 1, 3, 4, 22, 31, 32 & 33 complete. In addition, include the following sections as they relate to your work 079200, 129300, and Div 22.

a. 01 11 00 Special Provisions and all Exhibit Attachments

2. <u>The Scope of the Site Work Contract includes, but is not limited to, providing the following:</u>

GENERAL:

- a. The drawings are <u>diagrammatic</u> and may not be complete in every detail. They reflect the intent of the Architect/Engineer to provide a <u>complete</u> working system in compliance with all codes as shown by the documents. This contractor shall include any other equipment or devices necessary to provide a complete functioning system.
- b. The Work shall be provided in strict accordance with the Contract Documents and shall include, but not be limited to, providing all labor, supervision, materials, engineering, tools, equipment, hoisting, rigging, scaffolding, trade permits, applicable taxes, overhead expenses, warranties and guarantees to perform the complete scope as defined in this Scope of Work and as shown or described in the Contract Documents.
- c. Provide all water & sewer permits, licenses, fees, inspection costs, required by the City of Buffalo.
- d. BP-01 Site Work Contractor shall field verify existing infrastructure at locations where new lines are illustrated to be installed prior to bid and include all costs. BP-01 Site Work Contractor to include any additional offsets and fittings necessary to install indicated points of connection prior to bid; no additional cost will be provided for any discrepancies.
- e. Include providing ground penetrating radar to locate all existing site utilities prior to breaking ground onsite. Publish a complete report of the findings to the CM for review prior to breaking ground. Preinstallation meetings shall be held prior to any new excavation work.
- f. BP-01 Site Work contractor will provide survey layout using a NY licensed professional surveyor. Include the initial Site Setup, layout and control for New Expansion. This Contractor shall locate all buildings, structures and foundations. Establish offsets in secure locations for 4 exterior wall lines of the building, bridge and overlook deck. Establish 3 initial elevation benchmarks. Survey information will be provided for use by all contractors. Any offsets or benchmarks disturbed or damaged will be replaced by the contractor responsible at their cost. Include an allowance of \$2,500 to re-establish points lost by unknown party.
- g. BP-01 is required to flag off the limits of the existing NYSDEC environmental easement on site.
- h. BP-01 to provide temporary toilets for own personnel use for duration of site contractor scope of work

- i. This contract will be required to have a spill control and containment kit onsite at all times. At a minimum, the spill kit should contain an absorbent such as kitty litter or sawdust, acid neutralizing agent, brooms, dust pans, mops, gloves, goggles, plastic and metal trash container for fuel spills.
- j. Provide any temporary weather protection required for work exposed to the environment.
- k. Provide dewatering for excavations performed under this contract.
- Coordinate with Owner's inspection agent as required per the specifications for work being performed by this contract. BP-01 shall provide all requests in writing to the CM 48 hours in advance of the required inspections.
- m. Daily cleanup of own work and to provide dumpsters for own work provided by this contract.
- n. Provide necessary means for dust mitigation during the performance of your work. (ie. –
 independent water truck in the event BP-01 has any delays establishing the temp water service to
 the site)
- o. BP-01 shall establish their own means and methods to provide and maintain protection of existing and new work, adjacent to the construction area. Include protecting existing to remain asphalt, curbing, landscaping, and buildings. Damages by this contractor will be the responsibility of this contractor to repair.
- p. Temporary power and lighting will be provided in accordance with the Special Provisions. All other required temporary power or lighting required to complete this scope of work will be the responsibility of this contract. Specific power requirements for equipment/tools are the responsibility of this contract. Provide all extension cords, light stands or generators, as necessary. Any connection costs required by the BP-04 Electrical Contractor shall be paid directly by this Contract.
- q. Include all allowances as specified in Specifications Section 01 21 00 "Allowances" section of the Project Manual.
- r. Include a street sweeper and operator as required to clean dust, dirt, mud off the adjacent surfaces located outside the site fence on Fuhrmann Blvd. Areas should be cleaned weekly at the end of each Thursday at a minimum. In the event the debris are not being maintained to a satisfactory level by the Owner or City, BP-01 shall perform additional street cleaning at the direction of the CM.
- s. BP-01 to provide snow removal for project entrance and driveway during active construction. BP-01 to provide snow clearing and salting of egress pathways to construction trailers. See site logistics plan for detailed areas highlighted in green.
- t. BP-01 to provide crane pad and contractor Conex area pads as shown on TSK-001 Site Logistics
- u. Refer to the phasing plans, logistics plan, and special provisions for additional items owned by this contract not mentioned herein.
- v. BP-01 shall expedite the waterline connection to the existing location. Within 30ft of the building provide (1) 5ply heavy duty hose to provide water Include coordinating with the city and providing the temporary water service off the new line located along Fuhrmann Blvd. (reference PS111), include temp backflow, meter and another items required by the City. The tap fee will be by the BP-01 Site Work Contractor. Water Usage bill will be by BP-01 Site Work Contractor. Include a \$5,000 allowance within your contract to pay for all usage costs. All other permits and installation fees shall be included in your base Bid. Any unused portion of the allowance will be funded back to the Owner. If water service is not in place as needed for underground utility testing, this contract will provide provisions for site water as required. Include a water truck for use by all trades to perform their work when city water is not available.
- w. The following submittals shall be submitted within **20 Calendar days** of the Notice of Award:
 - 1. Site Utility piping, structures and accessories.
 - 2. Earthwork Aggregates/backfill/bedding materials
 - 3. Invasive Species Control and Management
 - 4. Soil Waste Management Plan

All other required contract submittals shall be submitted within **45 Calendar days** of Notice to Proceed. Any late submittals that impact or delay the arrival of equipment to the project site, <u>BP-01 will be financially responsible</u> to provide all temporary measures, expediting or out of sequence work to achieve project completion as scheduled.

DEMOLITION, SITE CLEARING AND SOIL MANAGEMENT:

- a. Include all demolition and site clearing shown on the Drawings.
- b. BP-01 shall provide for all removals shown on drawings and visible in field including but not limited to: existing curbs, trees and stumps, boulders, vegetation, etc. required to perform the work. The Site contractor is strongly advised to complete a site walk and will be responsible for removing all visible removals, including those not shown on the drawings, without additional compensation.
- c. BP-01 shall relocate all rocks as identified on the drawings include 6 more than identified on drawings. Include trucking and transport within a 5mile radius. Staging of Rocks will be determined by Architect.
- d. Include removal of 12 general directional signs not indicated on the drawings. Deliver signage to Terminal B project office at 901 Fuhrmann Blvd.
- e. Provide saw cut and removal of existing curb indicated to be removed within the construction area for the new roads. Please note that the Fuhrmann pavement shall not be disturbed.
- f. Provide invasive species management along Bell slip. Contractor to utilize appropriate means of PPE and protection to ensure the waterways are not contaminated.
- g. Include an allowance of 400 cyds of visually contaminated soil to be disposed of offsite. Include all excavation, trucking, testing, and imported backfill. All work will be completed on a T&M basis and any unused portion of the allowance will be credited back to the client.
- h. Support structure and foundations during construction as required for this contracts work.
- i. This contract must ensure dust/noise/safety/security barricades, temporary partitions and temporary fencing are in place prior to starting any work.
- j. Provide, maintain and remove erosion and sediment control of the site per CR101, CR501, and the contract documents (specification 312513) and the project Storm water Pollution Prevention Plan (SWPPP) including but not limited to; silt fence, temporary sediment traps, water filter bags, inlet protection, construction entrances, erosion control blankets, and any required discharge permits. SWPPP requirements as identified through the New York State Department of Environmental Conservation (NYSDEC) blue book shall be the standard requirements. BP-01 will be required to submit a current NYSDEC blue book to CM for reference during SWPPP activities. Maintain working area in compliance with the SWPPP plan at all times. Provide Best Management Practices (BMPs) which shall be implemented as site conditions change. It is the responsibility of BP-01 to provide BMPs prior to any rain event and changed sight conditions which shall be inspected and maintained daily. All installations to be confirmed and coordinated with CM, and may need to be relocated to adjust for project progress. This contract will be required to sign the Contractor Certification form included in the SWPPP. The employee listed on the form will be required to complete the NYSDEC Endorsed 4-hour erosion and sediment control training and be onsite during all ground disturbing activities and maintenance of SWPPP plan. This contract must comply with all rules, laws, regulations, etc. as it pertains to SWPPP.
- k. Provide, maintain and remove when directed a SWPPP mailbox located on site.
- I. BP-01 shall be responsible to comply and provide the erosion and sediment control notes 1-16, general construction notes 1-12 and all utility notes on sheet G101.
- m. Include protecting all storm inlets per the details on the civil drawings during construction.

- n. **DO NOT PROCEED** with any soil amendments or planting of new vegetation until the Owner, AE and CM have accepted the chemical treatments methods for invasive species completed on site. BP-01 shall ask for approval by AE in writing.
- o. **DO NOT PROCEED** with any installation of any soil mixes until the material test report submittals have been approved and returned by the AE. BP-01 shall include cost to ship all samples for testing to lab indicated in specification 329113-1.6-D.1.

CONCRETE AND FOUNDATION WORK:

- a. Provide all excavation, backfill, compaction, and grading for the foundations shown on the structural drawings (building, beer deck, stairs, and overlook deck). All excavation materials not for reuse are to be staged on site in accordance with specification 017419.
- b. Assume multiple mobilizations for backfill to allow coordination with the foundation insulation, and other work. Refer to the structural drawings for backfill requirements.
- c. Include excavation and backfill for the interior foundation work to bottom of subgrade.
- d. Provide, maintain, and removing a concrete wash out pit for all concrete work performed by all trades.
- e. Proof roll all areas where MEP trades placed underground work. Include incidental grading/backfill
 and compaction (+/- 2") as needed to restore subgrade. Fine grading for Slab on grade is by BP02 General Trade Contractor installing the slab on grade.
- f. MEP Underground excavation/backfill work within the building footprint to +/- 5' outside the building footprint will be by the MEP contractors.
- g. All de-watering required while any excavation/depression remains open.
- h. Provide all joints, construction, isolation, expansion etc. related to the site flatwork. Include all joint filler and sealer.
- i. Include construction of all foundations/concrete of exterior stairs and landings as indicated on drawings and specifications

SITE WORK:

- a. Include all site work shown on the civil, landscape and plumbing drawings.
- b. This contract is responsible for verifying all new and existing inverts and tie-in points prior to ordering any structures or placing pipe. Verify depths of existing known utilities crossing new utilities prior to starting any work. Provide early mobilization and excavation as required to verify.
- c. BP-01 Sitework shall provide all requirements for the Sitework (site clearing, dewatering, excavation, fill, proof-rolling, compaction, fine grading, and retention/detention systems, swales, ditches) and Landscaping/Site Finishing Work (landscaping, site paving, plantings, curbs and sidewalks etc.) as specifically defined in the drawings and specifications and as indicated in this scope of work.
- d. BP-01 shall conduct VOC Testing during Excavations, and shall alert other trades if permissible exposure limits are reached
- e. Provide excavation/fill, sub base (including geotech fabric) and backfill for the project including but not limited to; all roadways, site finishes, paving and curbs, utility trenches and other improvements. Include coordination of the foundation excavation and backfill with General Trades. BP-02 will provide all piers, footings, grade beams, foundations walls, including forming, shoring, reinforcing steel, vapor barriers, concrete accessories, water stops, curing and finishing, as indicated on the contract documents and specifically called for.
- f. Upon completion of underground utilities and backfill, sub-base is to be installed by this contract to within +/-1/2" of top of designed sub-base. Fine grading of top 1/2" will be by the BP-01 GT

Contract. Upon completion of sub-base by this contract, this contract shall provide a 10'x10' grid survey of the SOG subbase and submit to CM for review and approval. Review details for thickened slab at construction joints.

- g. BP-01 Provide all new storm piping and drainage as indicated on the documents (ie. CU101, CU501) including but not limited to all excavation, backfill, piping, detention system, structures, catch basins, man holes, underdrain, clean-outs, area drains, end sections, outlets, rip-rap channels, rip-rap, rock lining, geotextile filter fabric, swales etc. required for complete installation of the storm system. Upon completion of the storm sewer system, flush all piping and complete a full camera inspection of all pipe installed by this contract. The camera inspection shall be recorded and turned over to CM.
- h. Provide new sanitary systems as indicated on the documents including but not limited to; all excavation, backfill, piping, structures, man holes, clean-outs, etc. required for complete installation of the sanitary system. All pipes are to be stubbed within 5'-0" of the building or structure footprint and marked. Final connection at building is by PB-03.
- i. Provide all cutting, capping, removal and tying into existing sanitary lines as indicated or necessary to install new lines and system. Include all coordination and fees with public utilities. Upon completion of the sanitary sewer system, flush all piping and complete a full camera inspection of all pipe installed by this contract. The camera inspection shall be recorded and turned over to CM.
- j. Provide the new domestic water main complete, including but not limited to all excavation, backfill, piping, valves, connections, thrust blocks, hydrants, mechanical joints, etc. required for complete installation of the water system. Include all coordination and fees with public utilities.
- k. Provide, maintain and remove once directed by the CM all project site fence and signage. Provide temporary 20' lockable gates on driven post as indicated on TSK-001 Site Logistics Plan to secure access drives into the Project Site for the duration of the project. Gates must be installed within first week of mobilization. Coordinate locations with existing underground site utilities prior to installation. Include establishing the construction laydown areas. Include restoration at the completion of the project. Refer to the site logistics plan. Refer to the special provisions for additional information. Include a \$3,000 Allowance for site fence damage by others. Use of this allowance will be tracked on T and M tickets signed by the CM.
- I. Provide, maintain and remove all temporary signage shown on TSK-001.1 Wilkeson Point Site Logistics Exterior Signage Plan.
- m. BP-01 Site work contractor is to include all underground plumbing shown at all locations except within the Building footprints. The Sitework contractor shall install all underground storm and sanitary utilities within 5' of the building footprint for connections by BP-03. Termination points to be surveyed and identified on a drawing turned over CM for coordination with BP-03 to continue the installation.
- n. Coordinate all underground Sitework with all work shown on the "E-Series" drawings. This work will be provided by the Electrical contractor including excavation and backfill.
- o. BP-01 shall review the Geotechnical Report and include the necessary and proper means and methods for excavation of all soils as part of this Contract based on the findings of this report. Include all equipment, shoring, materials, etc. as needed to perform the scope of this work per the findings of this report. Backfill quantities, means and methods shall take into account irregular surfaces created by the removal during excavation.
- p. BP-01 Site work contractor shall provide all paving systems (asphalt, concrete, gravel etc) complete including but not limited to excavation, fine grade, fabric, curbing, binder, top and subbase. Reference L501 for details. Inclusive of striping.
- q. Include all permanent signage except for those posted to bathrooms and comfort station structures
- r. Include all site improvement work and patching concrete or asphalt.
- s. Provide all new fences, gates, benches, bollards, bike racks, post clusters, include dumpster enclosures

- t. Provide all landscaping, turf, grasses, soil preparation, plants (L401), quarry blocks, stone and seeding. BP-01 shall provide all scope of work identified on L401, L403, L402, L501, L502, L503 & L504.
- u. BP-01 to include labor to visit quarry and identify rocks prior to shipment that will be suitable (rectangular in overall shape, without cracks, chips, stains or defects that are visible)
- v. All plants shall comply with ANSI Z60.1 American standard for nursery stock.
- w. BP-01 shall be responsible to provide sufficient watering (own source if necessary) for plants to establish and take root in accordance with the demands of the weather after planting.
- x. BP-01 is advised to pay particular attention to the planting notes and the defined durations listed on sheet L402, planting notes.
- y. BP-01 shall execute percolation test pits as specified at one for every 1,000sft of installed topsoil.
- z. Include modifying rim elevations (storm, sanitary, or electrical) as necessary to accommodate grading in blacktop, concrete, or lawn areas. It is the contractor's responsibility to maintain surface drainage.
- aa. Provide final cleaning out of all trench drains, catch basins, drain inlets, sediment basins, and any existing piping contamination through the work of this contract and associated debris around the site.
- bb. BP-01 to furnish and install all hydrants as called out on drawings
- cc. BP-01 to furnish and install washing station and hose connection called out on L202, P501

3. The Scope of The Site Work Contract Specifically Excludes the following:

- a. General Building Permit. (By Owner)
- b. Builders Risk Insurance. (By Owner)
- c. Materials testing. (By Owner)
- MEP excavations/backfill within the building footprint (By MEP Contractors)
- e. Excavation and backfill for Site Electric (BY BP-04)
- f. Comfort Station and Bathroom Signage (By GT BP-02)
- g. Drinking Fountain (By BP-03)

END OF BP- 01 SITE WORK CONTRACT

BP-02 GENERAL TRADES CONTRACTOR

1. Scope of Work:

The Work of this Agreement shall include, but not be limited to, all labor, materials, tools, equipment, plant, supplies, shop drawings, layout, transportation, supervision, contributions, insurance compliance with all agencies (City, County, State and Federal as may be required), and shall cover all other items necessary for the performance of the **General Trades Work** as shown detailed and/or implied by the following documents and as defined herein. This requisition is intended to supplement the Contract Specifications and drawings and must be used in coordination with these documents to fully understand the Scope of Work. Requirements given in one area are thus applicable to all. This requisition does not generally repeat scope requirements given in the Contract Documents but clarifies and coordinates the work. Work in the Documents repeated here is for specific coordination purposes. The scope of your work is generally defined as all work included in specification sections: Division 0, 1, 3, 5, 6, 7, 8, 9, 10, 11, and 12 complete. In addition, include the following sections as they relate to your work 123661.16, 129300 Div 22, 23 26 & 27.

a. 01 11 00 Special Provisions and all Exhibit Attachments

2. <u>The Scope of the General Trades Contract includes, but is not limited to, providing the following:</u>

GENERAL:

- a. The drawings are <u>diagrammatic</u> and may not be complete in every detail. They reflect the intent of the Architect/Engineer to provide a <u>complete</u> working system in compliance with all codes as shown by the documents. This contractor shall include any other equipment or devices necessary to provide a complete functioning system.
- b. The Work shall be provided in strict accordance with the Contract Documents and shall include, but not be limited to, providing all labor, supervision, materials, engineering, tools, equipment, hoisting, rigging, scaffolding, trade permits, applicable taxes, overhead expenses, warranties and guarantees to perform the complete scope as defined in this Scope of Work and as shown or described in the Contract Documents.
- c. This contractor is cautioned that additional scope of work to be provided under this contract is detailed in the Special Provisions and Logistics Plans.
- d. Include all line and grade necessary to complete the work of this bid package. BP-01 Site contractor will establish building control.
- e. Install all sleeves furnished to the general trade's contractor by others for their work passing through all concrete.
- f. Coordinate rough in with other prime Contractors.
- g. Provide access including but not limited to use of lifts and scaffolds for the third-party inspector to review all work requiring review as noted in the special inspection's specification.
- h. GWB/stud work shall occur using the following sequence: BP-02 General Trades Contractor shall proceed with the track and metal studs for all full height partitions. BP-02 GT will install the spray foam insulation. The BP-03 Mechanical Contractor will clearly mark on the floor the duct sizes, centerlines, and bottom elevations where they penetrate walls. The BP-02 General Trades Contractor shall frame out for all ducts. In congested areas the GWB may need to be completed and fire-safed prior to the installation of the ductwork due to access restrictions. Installation of MEP work will follow normal coordination sequence (duct, plumbing, electrical). Fire-safing of all penetrations through the GWB will be by each responsible MEP Trade. Trades will be provided a reasonable opportunity to complete rough-in or blocking. Each trade will indicate when rough-in for walls is complete and ready for

inspection to proceed with GWB in the foreman's meetings held with the construction manager. If there is an area where installation interferences occur, the construction manager reserves the right to make a judgment decision on sequence.

- i. Provide the Final Building cleaning of <u>ALL WORK</u> (interior and exterior) by qualified cleaning subcontractor. At a minimum final cleaning shall consist of all dusting (including high dusting), wiping down and cleaning all finished surfaces, wet mop and vacuum all sealed concrete floors, clean flooring and carpet, clean interior and exterior of all glass, cleaning all toilet fixtures, urinals, mirrors, wiping down all walls and metal panels, cleaning all doors inside and out. Dusting all MEP, equipment including the water meter.
- j. Provide any temporary weather protection required for work exposed to the environment.
- k. Coordinate with Owner's inspection agent as required per the specifications for work being performed by this contract. 48 hour notice is required.
- I. Daily cleanup of own work to dumpsters is included. BP-02 shall provide dumpsters for use by BP-03 and BP-04 for the life of the project. Site contractor will provide their own.
- m. Provide and maintain two (2) 20lb, ABC fire extinguishers on stands for the duration of the project. Locations to be determined by the CM.
- n. Include a broom cleaning of the construction areas twice a week. This includes the complete work area regardless of who generated the dust/debris.
- o. Provide necessary means for dust mitigation during the performance of your work. Provide fans and/or negative air to control dust.
- p. It is the responsibility of this Contract to provide and maintain protection of existing and new finishes. All joint compounds, and paint overspray and/or drips must be scraped and cleaned from finished surfaces immediately. Care must be taken during removal from finishes. Any damages and/or staining to the finishes will be the responsibility of this Contractor to repair or replace at no cost to the Owner.
- q. Temporary power and lighting will be provided in accordance with Special provisions. All other required temporary power or lighting required to complete this scope of work will be the responsibility of this contract. Specific power requirements for equipment/tools are the responsibility of this contract. Provide all extension cords, light stands or generators, as necessary. Any connection costs required by the BP-04 Electrical Contractor shall be paid directly by this Contract.
- r. Include all allowances as specified in Specifications Section "Allowances" of the Project Manual.
- s. <u>Temporary Toilets and Handwashing Stations are to be provided by this Contractor for the duration of the project for own personnel.</u> Reference the Special Provisions and Logistics Plans for quantities, locations and requirements.
- t. Refer to the phasing plans, logistics plan, and special provisions for additional items owned by this contract not mentioned herein.
- u. <u>The following submittals</u> shall be submitted within **20 Calendar days** of Notice to Proceed. All other shop drawings and submittals will be submitted within **45 Calendar days** of Notice to Proceed.
 - 1. Concrete Mix Designs & reinforcing shop drawings
 - 2. Anchor bolts and Structural Steel
 - 3. Cold Formed Metal Framing
 - 4. Overhead Doors, Frames, doors, hardware.
 - 5. Aluminum framed entrances and storefronts.

Any late submittals that impact or delay the arrival of equipment to the project site, <u>BP-02 will be financially responsible</u> to provide all temporary measures, expediting or out of sequence work to achieve project completion as scheduled.

CONCRETE:

- a. All excavation, backfill, and grading will be by the BP-01 Site Work Contractor. Include coordination with the BP-01 Site Work Contractor. Coordination shall include providing appropriate backfill depths required to execute the next phases of work such as foundation insulation and waterproofing, masonry, exterior wall, etc.
- b. Provide all concrete foundations & slab on grade (Building). This includes but is not limited to reinforcing (bar, mesh, fiber, dowels, etc.), preformed joint materials, saw cutting, sealant, openings for MEP penetrations, water-stop, dowels, anchor bolts, control and expansion joints, curing, etc. for a complete installation as required on the drawings & specifications.
- c. BP-01 will provide a concrete wash out pit for all concrete work performed by all trades.
- d. Coordinate with and provide elevations to the BP-01 Site Work Contractor for fine grading related to the building slab on grade. Fine grading for slab placement is by BP-02.
- e. Coordinate and install all inserts and sleeves, whether provided by this contract or by others, required to penetrate concrete foundations or slabs.
- f. Include patching the concrete slab on deck and slab on grade following the completion of the interior foundations. Excavation and backfill will be by the BP-01 Site Work Contractor.
- g. Any epoxy drilled anchors will need to shop vac'ed out and probed with a damp rag prior to installation. Contractor to advise CM so inspection can occur to assure proper set up.
- h. Provide all joints, construction, isolation, tooled, expansion etc. Include all joint filler and sealer.
- i. Furnish and install all embedded items as required for the scope of this work.
- j. All exposed concrete foundations shall be rubbed.
- k. All rigid board building insulation installation complete.

METALS:

- a. All structural steel elements including but not limited to; base plates, bearing plates, columns, beams, channels, embeds, girders, connecting materials, studs, stiffeners, fasteners, hangers, loose lintels, roof frames, anchor bolts etc. for a complete structure.
- b. Preparation of bear steel and priming of all field welding is included in this contract
- c. All welders on site shall be AWS certified. Satisfactory AWS qualifications are required prior to field/shop welding.
- d. Expedite all Structural steel, joist, and deck shop drawings upon receipt of notice to proceed to maintain the project schedule. Within 20 days of Notice to Proceed.
- e. Provide early delivery of anchor bolts, leveling plates, bearing plates, and base plates to meet the concrete pour schedule and masonry schedules.
- f. Include anchor bolt survey to identify any discrepancies or determine acceptance of the installation at a minimum 1 week prior to the steel erection starting.
- g. No power hookup is figured for the welders or stud welders. Supply portable welders with generators for the scope of this work.
- h. BP-02 to include metal framing installation for Bar on Beer Deck
- i. Provide all angle frames for all MEP penetrations, and rooftop equipment. This contractor is required to review all HVAC, Plumbing and Electrical documents to establish quantities prior to bid. Assume all angle frames will be field welded into place following the coordination process. Locations and clear openings shall be provided by the MEP contractors in writing upon request from the BP-02 General Trades Contractor. Final locations of steel angle shall not be cause to delay the structural steel fabrication process.

- j. Include all window opening perimeter angles and support tube steel. Reference the architectural and structural documents for complete scope definition.
- Include the steel angle at the top of the roof parapet that supports the wood blocking and roof fascia.
- I. BP-02 is advised that there are sections of the structure that will be exposed to view. For that portion of the steel it will be assumed to Architecturally Exposed Structural Steel. That standard will be enforced for the visible portions of the steel. Ie. Removal of all piece marks on exposed steel is required.
- m. Include all Exterior wall CFMF framing. Include calculations associated with the delegated design.

WOOD:

- a. BP-01 shall provide all Misc. Rough Carpentry, Sheathing and Exterior Finish Carpentry complete.
- b. Any in-wall blocking to support the work required under this contract is provided by this contractor. All blocking shall be fire treated.
- c. Provide all architectural woodwork, trim, millwork, and finish carpentry.
- d. BP-02 General Trades Contractor shall provide, maintain, and then remove cardboard protection on all installed casework by this contract.
- e. Provide ALL wood, blocking, sheathing, nailers, cants, misc. angles, shims etc. required to complete or support the work required under this contract, weather shown or not, shall be provided by this contractor.
- f. Include scribing of solid surface stools for installation as required to meet existing adjacent materials (windows).
- g. Include caulking of all millwork to adjacent surfaces. Color to be determined by A/E through submittal process.
- h. Include sealing of all exposed wood trim, blocking, and millwork unfinished edges.
- i. All solid surface stool seams will be "seamless" after installation. This contractor shall re-work any seam deemed unacceptable by the CM and/or A/E.
- j. Blocking for mechanical unit curbs, parapets, and misc. roof installations.
- k. Provide all wood blocking to support exterior finish panel work by this contract.
- I. Store all wood materials in an area with a controlled atmosphere.
- a. Provide Temporary plywood doors at exterior of all comfort station and bathroom openings
- b. BP-02 to provide Beer Deck and Overlook Deck as identified on drawings
- c. BP-02 to provide construction of Bar/Bar Bench on Beer Deck

THERMAL AND MOISTURE PROTECTION:

- a. BP-02 shall provide all Insulation, DEFS, Air Barriers, metal roof panels, metal flashings and trim, all roof specialties and joint sealants for your work.
- Include all rigid, blanket insulation and closed cell spray foam insulation and primers to complete the exterior wall.
- c. Include insulation within window and door jamb, sill, and head conditions prior to caulking the interior side of the windows. Caulk on the interior side of the window and exterior doors shall be applied from the frame directly to the air barrier. Additional cosmetic sealant from the drywall returns and sills to the frame is also included.

- d. Coordinate the timing and maximum allowable thickness of the exterior wall spray insulation with the MEP rough in work. Any overspray on surfaces not too receive insulation or conflicting with MEP rough in shall be scraped back by this contract.
- e. BP-02 shall provide a separate 4'x4' mock up for finish and color prior to the commencement of the work. Include direct 10 year warranty for the Direct applied Exterior Finish system.
- f. Include a complete and continuous air/vapor barrier assembly from the foundations and exterior wall intersecting with the roof vapor barrier. CM to sign off prior to concealing air/vapor barriers. Include coordination with other prime Contractors to determine the air barrier termination point at adjoining materials. Include shingling of the air vapor barrier to promote positive drainage.
- g. The General Trades Contractor will cut all roof penetrations, framing and wood blocking required for mechanical equipment supported on the roof. It is the responsibility of this contractor to coordinate the requirements and the scheduling of the work with the other Prime Contractors.
- h. Provide all backer rod and interior and exterior sealant at the perimeter of all windows and doors weather shown or not on the contract documents. Sealant at all doorframes, windows, etc. shall be applied to the air barrier and installed before any drywall returns or finish paint is applied.
- i. Sealant at all doorframes, windows and etc. shall be installed before any finish paint is applied.
- j. Provide joint sealant where any two dissimilar materials touch and as required to complete finishes for this work. Sealant between your work and the intersections of work of others is also included.
- k. Provide all backer rod and interior and exterior sealant at the perimeter of all windows and doors weather shown or not on the contract documents. Sealant at all doorframes, windows, etc. shall be applied to the air barrier and installed before any drywall returns or finish paint is applied.
- I. Provide all insulation for the buildings (foundation, wall, thermal, sound, etc.). Coordinate the timing and maximum allowable thickness of the exterior wall spray insulation with the MEP rough in work. Any overspray on surfaces not too receive insulation or conflicting with MEP rough in shall be scraped back by this contract.
- m. Provide all expansion joint assemblies and required metal flashing accessories.
- n. Include all rain screen panels and support complete. Include coordinating the color of the support framing with the architect.
- o. Provide all closure flashings/trim at the rain screen panels to trim out the door and window openings. Refer to the specifications for minimum gauge requirements. Support as required for rigid installation. Coordinate required perforations with the manufacturer. All Exterior caulk joints shall terminate to a solid flashing section.
- p. Roof parapet blocking and fascia metal will also be by the BP-02
- q. The typical coordination for the termination of work provided by the BP-02 General Trades contractor and the BP-03 Roofing Contractor in the details shown on A410 will be as follows:

OPENINGS:

- a. BP-02 shall provide all Hollow Metal Doors and Frames, Overhead Coiling Doors, Aluminum framed storefronts, Door Hardware, Glazing and joint sealants for your work.
- b. Provide all interior and exterior windows complete as shown on the contract documents.
- c. All door and window head, jamb, and sill details complete per the contract documents.
- d. Expedite the door, frame and hardware submittals and the delivery of the door frames for timely receipt and installation to meet the schedule.

- e. Provide a keying system in coordination with the owner and the specifications. The keying system includes keys, cores etc. for a complete working system. This includes the OHD as well.
- f. Provide temporary construction cores at all new exterior doors to match the cores selected by the Owner. Include the installation of the permanent cores at each new door.
- g. Provide overhead doors including low voltage control conduit, wiring and connection for the doors. The BP-04 Electrical Contractor will provide main power to a single point connection at the OH Door equipment. Provide all blocking and support hangers for proper mounting of the door per manufacturers' requirements. Note: if the door manufacture carried by BP-02 requires structural support for their door rails/track and it's not shown on the drawing. BP-02 should include those costs within your base bid. No additional cost for this will be compensated by the Owner.
- h. Provide all special frame prep work (whether field or shop) and required coordination for the proper and complete installation of security, electronic strikes, etc. provided by the BP-04 Electrical Contractor. BP-04 Electrical Contractor to provide and terminate all wiring. Coordinate installations with the BP-04 Electrical Contractor to ensure all wiring is concealed.
- i. Provide shims as required for the installation of the windows and doors (plastic "u" type shims only) are to be provided and installed by this contractor. Wood shims in exterior windows and doors will not be allowed and will be required to be removed at the contractor's expense.
- j. Include all minor paint touch-ups as required to complete your work and prior to acceptance by the Architect. This contractor owns protection of their work and correction of any damage that occurs to it for not protecting properly.
- k. Window, and aluminum storefront fabrication drawings shall be assembled withhold dimensions to allow for an early release to fabrication. Coordinate hold dimensions with the exterior wall framing, and rain screen panels.

FINISHES:

- a. BP-01 shall provide all Non-structural Metal Framing, Gypsum Board assemblies, Ceramic Tile, Paint, Stain and joint sealants for your work.
- b. Include installation of all MEP access doors provided by the MEP Contractors in new construction only. Provide all other access doors required to provide access for your work including all necessary stud framing and blocking required for installation. Coordinate with the MEP contractors for locations. The MEP contractors will install access doors in existing construction.
- c. Provide all patching, repairing, and touch up painting of all areas and surrounding finishes affected by others This includes, but is not limited to, ceiling systems, windows, partitions, and flooring.
- d. Vacuum all metal tracks prior to enclosing 2nd side.
- e. Provide all fire-resistant compressible filler and required fire caulking/spray at tops of rated GWB partitions.
- f. Coordinate with the BP-03 Mechanical Contractor for locations and layout of stud framing. Refer to the mechanical drawings for required locations.
- g. Provide all drywall ceiling systems complete.
- h. Provide and execute moisture tests to assure concrete is ready for flooring installations. BP-01 is strongly advised to review this work with your subcontractors.
- i. BP-02 shall Provide any/and all additional primers, sealers or moisture barriers required to seal the concrete for excessive moisture based on the flooring manufactures installation instructions to receive the finished flooring if the concrete moisture level is too high. Assume moisture tests will reveal moisture levels are above manufacturer requirements. All costs shall be included in the base bid.

- j. Prepare all floors to receive new flooring as required by each manufacturer. As a minimum, this contract will be responsible for broom clean, scrape, and vacuum in all areas to receive floor finishes as part of the floor preparation. In addition, provide stripping, chipping, scarifying, bush hammering, sanding, shot blasting, floating, patching, floor leveling, crack repair etc. as required for proper installation and smooth transitions for all floor finishes provided under this contract. Utilize materials that are compatible with the floor finishes to provide the proper bonding to the substrate.
- k. All concrete floor sealers, hardeners and polishes for exposed concrete
- I. Provide all tile layouts to avoid less than half a tile piece being installed at the walls/ends of the installed tile. This is applicable to ceramic
- m. Caulk all inside corners where ceramic tile meets ceramic tile
- n. Provide all cove base/finish wall base.
- o. Provide all painting/priming, staining, sealing, and high-performance coatings, interior, and exterior, as indicated on the contract drawings and specifications (including all exposed miscellaneous metals, doors, and frames, etc.).
- p. All interior painting of new work and adjacent existing finishes that were patched and repaired due to installation of new and modification of existing work. Include final touch up of finishes as required.
- q. It will be the sole responsibility of the BP-02 General Trades Contractor to provide adequate protection of all adjacent finishes during final painting.
- r. Provide painting for all exposed Mechanical, Electrical, and plumbing installed in new and existing areas as noted in the contract documents (all Sections). Painting of exposed surface mounted conduits and boxes within the spaces is also included.

SPECIALTIES AND FURNISHINGS:

- a. BP-02 shall provide all new toilet, bath and laundry accessories, solid surface stools and the timber benches noted under site furnishings. complete
- b. Provide all mirrors and required blocking complete.
- c. Provide all building signage required. In the event that no signage is specified include an allowance of \$1,200 to provide room identification signage.
- d. Furnish and install all new kitchen equipment shown on K-Series drawings working and complete, pay special attention to KA-1 Equipment Schedule

CONSTRUCTION MANAGER TRAILER REQUISITION:

- a. For the use by the CM, provide the items listed below. All items listed below are to be provided, installed, maintained and will become the property of Erie Canal Harbor Development Corporation at the completion of this project with the exception of the trailer and all items listed as leased. Items shall be removed from the trailer and delivered to the Erie Canal Harbor Development Corporation to a location to be determined once directed by the CM. All items listed in this section are to be supplied to the CM by this Contractor by the trailer mobilization date listed in the milestone schedule:
- b. Assume takeover of the current leased trailer used for the Bell Slip project and include removing and relocating CM trailer to Wilkeson point site, including connection of electricity, water, and wastewater holding tank. This will be used as the Project Field Office, principal use by the Construction Manager. Provide weekly pumping of holding tank.

- c. Include cost to extend existing trailer rental from June 2024 through December 2024 in this contract. Include all rental rates and demobilization costs in this contract. This trailer must be rented, and the rental agreement shall be transferable to another party at the end of the project in 2024. Please contact Ryan Leimbach, 1410-487-8341x78341 ryan.leimbach@willscot.com.
- d. In addition to the trailer requisition being extended the below items will also need to be transferred to the new Prime General Trades Contractor to maintain services: Extend all services through December 2024.
 - i. Verizon Cell Service for the iPad Minis ends May 31, 2024
 - ii. Verizon "MiFi" WiFi Unlimited Plan Hot Spot Service ends May 31, 2024
 - iii. Weekly Housekeeping for trailer ends May 31, 2024
 - iv. Water Cooler service ends June 2024
 - v. Cintas First Aid Cabinet ends June 2024:
 - vi. Cintas account representative is John Poente 617-512-3672 or 1-855-859-1363
- e. Refill (1) First Aid kit by Zee Medical Service Co. model "Plastic First Aid Cabinet". Cabinet shall be provided fully stocked. Contact zemedical.com. In addition, provide monthly service to refill as necessary through 8/31/23. Include mounting inside the trailer.
- f. Provide a water service replacing water jugs throughout the duration of the trailer lease agreement. The water cooler is provided by the owner.
- g. Lease one (1) Sharp MX-3070 (or equivalent) with B&W and Color coping, and scanning capabilities (from 4/1/23 through 6/1/24). Copier shall be delivered to the CM Project Field Office. Machine shall have at least (2) paper bins (8 ½"x11" and 11"x17"), enlarging and reducing capabilities, 1,000 sheet finisher & stapling ability, and double-sided copying/printing/scanning capacity. Include delivery & setup, printer drivers and software and networking connections necessary to run on Windows 10 for three (3) office computers. Monthly maintenance of this machine, as required, shall be included along with all necessary toner cartridges, toner waste containers and staples for the life of the contract. Include all charges for quantity of copies. Contact Al Peters with Prizm for information at (716)-770-5039. This equipment must be rented, and the rental agreement shall be transferable to another party at the end of the project in 2024.
- h. Furnish four (4) 5,000 sheet carton of 8 $\frac{1}{2}$ " x 11" white copy paper and two (2) 2,500 carton of 11x17 copy paper.
- i. (2) Sets of colored dry markers with erasers.
- j. (5) Cans of Orange Marking Paint
- k. (2) Boxes of Dival Safety Glasses item A1113CHCAF, Di-Vision Sport Clear Anti-Fog Lens Safety Glasses
- I. (1) Boxes of Dival Safety Glasses item A1113CHCAF, Di-Vision Sport Sunglass style Anti-Fog Lens Safety Glasses.
- m. (5) Large and (5) X-Large reflective safety Vests.
- n. Furnish the following quantities (in pairs) of MaxiFlex Ultimate Seamless Knit Nylon/Lycra Gloves L5 Cut resistant (10) L, (10) M, (5) S
- o. (1) Boxes of thirty-two (32) 42gallon, 3mill, contractor clean up bags
- p. (2) Boxes of 13 Gallon Trash bags
- q. Provide sweeping, mopping, trash removal, and disinfecting surfaces of the rented trailer on a weekly basis.
- r. Include removal at the completion of the lease agreement.
- s. Provide (1) \$350 Office Depot prepaid card. Card to be turned over to the Erie Canal Harbor Development Corporation for the purchase of the CMs office supplies.
- t. Include labor and trucking to turnover furniture and supplies to the Outer Harbor at the completion of the project. Note some of these items were not provided by this contract.

3. The Scope of The General Trades Contract Specifically Excludes the following:

- a. General Building Permit. (By Owner)
- b. Builders Risk Insurance. (By Owner)
- c. Materials testing. (By Owner)
- d. Site/Civil Work (By BP-01 Site Work Contractor)
- e. Foundation excavation and backfill (By BP-01 Site Work Contractor)
- f. MEP housekeeping pads

END OF BP- 02 GENERAL TRADES CONTRACT

BP-03 HVAC / PLUMBING PRIME CONTRACTOR

1. Scope of Work:

The Work of this Agreement shall include, but not be limited to, all labor, materials, tools, equipment, plant, supplies, shop drawings, layout, transportation, supervision, contributions, insurance compliance with all agencies (City, County, State and Federal as may be required), and shall cover all other items necessary for the performance of the **HVAC** / **Plumbing Work** as shown, detailed and/or implied by the following documents and as defined herein. This requisition is intended to supplement the Contract Specifications and drawings and must be used in coordination with these documents to fully understand the Scope of Work. Requirements given in one area are thus applicable to all. This requisition does not generally repeat scope requirements given in the Contract Documents but clarifies and coordinates the work. Work in the Documents repeated here is for specific coordination purposes. The scope of your work is generally defined as all work pertaining to the Erie Canal Harbor Development Corporation in specification sections: Division 00, 01, 22 and 23 complete. In addition, include the following sections as they relate to your work: 074113.16, 076200, 077100, 079200, 099113, 260523, 260533, 264313, 270256, Div 33

a. 01 11 00 Special Provisions and all Exhibit Attachments

2. The Scope of the HVAC / Plumbing Work includes, but is not limited to, providing the following:

GENERAL:

- a. The drawings are <u>diagrammatic</u> and may not be complete in every detail. They reflect the intent of the Architect/Engineer to provide a <u>complete</u> working system in compliance with all codes as shown by the documents. This contractor shall include any other equipment or devices necessary to provide a complete functioning system.
- b. The Work shall be provided in strict accordance with the Contract Documents and shall include, but not be limited to, providing all labor, supervision, materials, engineering, tools, equipment, hoisting, rigging, scaffolding, trade permits, applicable taxes, overhead expenses, warranties and guarantees to perform the complete scope as defined in this Scope of Work and as shown or described in the Contract Documents.
- Provide all Mechanical and Plumbing permits, licenses, fees, inspection costs, required by the City
 of Buffalo.
- d. BP-03 HVAC / Plumbing Contractor shall field verify existing infrastructure at locations where new piping is illustrated to be installed prior to bid and include all costs. BP-03 HVAC / Plumbing Contractor to include any additional offsets and fittings necessary to install indicated point of connection prior to bid; no additional cost will be provided for any discrepancies.
- e. Include the coordination process as described in specifications.
- f. Furnish all loose motor starters and controllers (and associated fusing) required to operate equipment furnished under this contract to the BP-04 Electrical Contractor. These loose starters shall be mounted by the BP-04 Electrical Contractor as close as possible to the equipment served. All power wiring from the electrical panel to the starter shall be by the BP-04 Electrical Contractor. All interconnect wiring and power wiring from the starter to the equipment, shall be provided by the BP-04 Electrical Contractor. BP-03 HVAC / Plumbing Contractor shall provide all low voltage wiring and terminations required for complete operation.
- g. Furnish and coordinate with the BP-02 General Trades Contractor all sleeves for this work that penetrate drywall, concrete, and masonry work (via dimensioned transmitted drawing). BP-03 HVAC / Plumbing Contractor shall verify and monitor that the sleeves are installed in the correct location during the placement of concrete, drywall, or masonry. This Contractor shall provide

necessary sawing and coring for penetrations through walls, floors, and ceilings where sleeves were not provided or improperly coordinated.

- h. HVAC / Plumbing Contractor shall seal/insulate **all** penetrations in exterior walls/roof in relation to their work
- Coordinate rough in with other prime Contractors.
- j. All surveying, line, and grade necessary to complete the work of this bid package. Refer to the special provisions for more information.
- k. Protection of "others" or existing in-place work, while performing the work of this contract. Example protection of finished flooring.
- I. Daily cleanup of own work to dumpsters provided by General Trades Contract is included. Include broom sweeping work areas daily.
- m. Any temporary weather protection required for work exposed to the environment.
- n. Provide all in-wall blocking to support the work required under this contract that is furnished and installed by this contractor. All blocking shall be fire treated if not specified otherwise.
- o. Provide 6" high concrete housekeeping pads for all floor mounted HVAC / Plumbing equipment, unless specifically noted otherwise. Housekeeping pads shown on architectural or structural drawings for equipment under this contract shall be installed by the BP-03 HVAC / Plumbing Contractor. The BP-02 General Trades Contactor will not be providing any housekeeping pads for MEP equipment.
- p. Include sealing of all walls, floor, and ceiling penetrations made by this contract. Refer to the wall type/rating for required smoke, fire, or acoustical sealant. Assume all penetrations in walls shall be sealed for sound at a minimum. Sealing penetrations shall be performed as the work progresses.
- q. Furnish all access doors of adequate size and fire rating required for this contract's work to satisfy all applicable codes. Also supply all labor to layout access door locations in the field and to coordinate with the BP-02 General Trades Contractor for turnover of access doors for their installation in new construction only. This contractor will be responsible for storing all access doors until ready for installation. In existing walls and ceilings this contract shall be responsible for cutting the opening, installing the access door, and patching finishes. Match existing finish colors.
- r. GWB/stud work shall occur using the following sequence: BP-02 General Trades Contractor shall proceed with the track and metal studs for all full height partitions. BP-02 GT will install the spray foam insulation. The BP-05 Mechanical Contractor will clearly mark on the floor the duct sizes, centerlines, and bottom elevations where they penetrate walls. The BP-02 General Trades Contractor shall frame out for all ducts. In congested areas the GWB may need to be completed and fire-safed prior to the installation of the ductwork due to access restrictions. Installation of MEP work will follow normal coordination sequence (duct, plumbing, electrical). Firesafing of all penetrations through the GWB will be by each responsible MEP Trade. Trades will be provided a reasonable opportunity to complete rough-in or blocking. Each trade will indicate when rough-in for walls is complete and ready for inspection to proceed with GWB in the foreman's meetings held with the construction manager. If there is an area where installation interferences occur, the construction manager reserves the right to make a judgment decision on sequence.
- s. All core drilling, cutting, and patching are required for floor, wall, and roofing penetrations. Patching all finishes to match in exposed areas is by this contract.
- a. Provide sealants around all HVAC / Plumbing fixtures, wall hydrants, sinks, and around mop basins. Color to be selected from manufacturer's full range of colors by Architect. All sealants (color to be determined from full range by Architect) between intersections with your work and any other material to ensure a complete, weatherproof, or finished system.
- b. Provide all fire-stopping, smoke sealing, sleeves / escutcheons as required for this scope's penetrations. Maintain the UL wall assembly rating. This contractor will submit for approval the different fire stopping assemblies that will be used on the project before start of installation.

- c. This contract owns sealing of all exterior penetrations to create a water-tight installation
- d. Provide dewatering for excavations performed under this contract.
- t. Provide information necessary for the CM to coordinate this work with the Owners testing agency. Inform the CM no less than 48 hours ahead of time to allow the testing agency to schedule personnel to be on site to perform their testing with no delay to the schedule.
- u. <u>All HVAC and Plumbing equipment submittals</u> shall be submitted within **45 Calendar days** of Notice to Proceed. Any late submittals that impact or delay the arrival of equipment to the project site, <u>BP-03 will be financially responsible</u> to provide all temporary measures, expediting or out of sequence work to achieve project completion as scheduled.
- v. This contract is to provide temporary toilet facilities for its own personnel for the duration of Mechanical scope of work

DEMOLITION:

- a. Provide Demolition of all HVAC / Plumbing systems per the contract documents. Note HVAC / Plumbing demolition is not shown solely on the HVAC / Plumbing demolition drawings and all drawings should be reviewed for a complete understanding of scope.
- b. Provide all demolition and disposal of existing infrastructure defined by contract.

PLUMBING:

- a. Provide all labor materials and equipment necessary to make final connections to all underground Plumbing to site work at a point +/-5'-0" outside of the building footprint. BP-03 shall assume that this work will be out of sequence and a separate mobilization.
- b. Include excavation, disposal of spoils off site, pipe bedding, piping, fittings, valves, marking tape, testing, backfill and compaction within the building footprint within +/- 5 ft outside the building footprint for all underground work. Coordinate inverts and building entrance points with the BP-01 Site Work Contractor prior to starting work.
- c. All Plumbing equipment and fixtures shown, noted, or scheduled on/in the contract documents. BP-01 is to provide the backflow preventer, RPZ and exterior drinking fountain/bottle filling station assembly complete.
- d. Install rubber caps on all sleeved penetrations or vertical pipes to protect against material from falling into sleeves/pipe. Install "Hole In One" cover on all flush penetrations on the concrete slabs. Any hole or penetration greater than 2" will require a heavier gauge material capable of supporting 200 lbs. This contractor is responsible for installation, removal and disposal once pipe is installed.
- e. Provide all fixtures and equipment as indicated on contract documents, required for complete systems as indicated below. Include protection of plumbing fixtures until turned over to Owner. Include all support for fixtures, included ADA fixture trap protection on sinks and lavatories regardless if indicated.
- f. During excavation, backfill, and concrete placement, provide adequate personnel to monitor your work (drains, sleeves, etc.), including off hours' time for pours starting before or extending beyond normal work hours.
- g. Provide layout and furnish all roof curbs / vents, etc. that are required under this scope of work. BP-03 is responsible for coordinating these items at the roof level. The roof is a standing metal seam roof, all vents shall penetrate the roof so a complete seal can occur on the "flat" of the roof panel. For roof curbs that are shipped in pieces for field assembly, this Subcontractor is responsible for assembling.

- h. Provide all required pipe hangars, clams, pipe supports, grout, misc. metal, anchors, and other items required for the suspension of the work from above and from the floor.
- i. Include all piping, valve, above ceiling equipment locator and equipment identification as required by contract documents.
- j. Provide all insulation and pipe labelling consecutively after testing and cleaning. Overhead rough and finish are to be completed back to back.
- k. Provide entire sanitary, waste and vent system (within building footprint) as indicated on the documents as required for complete installation.
- I. Furnish and install all drains including but not limited to floor drains, clean outs, area drains, trench drains (including grates and covers), including all associated piping and accessories.
- m. BP-03 shall be responsible for coordinating the location of floor drains, floor sinks, and hub drains with the equipment they serve so that equipment drains will dump directly into the receivers without flowing or being piped across the floor. Plumbing equipment shall be installed in such a fashion that access to the equipment and pathways through mechanical rooms are maximized for service and maintenance. BP-03 is responsible to monitor concrete placement and ensure all floor drains are plumb. Any required adjustments or reinstallation required for lack of plumb drains shall be the responsibility of this contractor.
- n. Provide the entire domestic water system as indicated on the documents, including but not limited to piping, connections, valves as required for complete installation of the Domestic Water system.
- o. BP-03 shall be responsible for flushing and cleaning, including all chemicals, of all systems prior to substantial completion and Owner's acceptance. Potable water systems must be sanitized, inspected, witnessed and certified prior to turnover. The BP-01 Site Work Contractor will flush and clean all underground piping to within 5' of the building footprint. The BP-03 HVAC / Plumbing Contractor is responsible for flushing all underground piping installed by this scope of work. CM/Owner must be present to witness this flushing.
- Provide a final water sampling/test report of potable water by NYS registered laboratory at close out.
- q. Provide all hose bibs.
- r. Coordinate with the electrical subcontractor to provide voltage and power information for all plumbing equipment shown on the contract documents.
- s. BP-03 shall pressure test all systems installed in accordance with the specifications or good construction practice, whichever is greater, and have the tests witnessed. Provide certification as part of the warranty documentation.
- t. Include coordination with BP-02 General Trades Contractor for final elevations and floor finishes. Also coordinate finish wall dimensions with the BP-02 General Trades Contractor.
- u. Provide the BP-02 General Trades Contractor with sleeves and a written layout of foundation penetrations. The BP-02 General Trades Contactor will install the sleeve. The BP-03 HVAC / Plumbing Contractor shall install continuous water stop around the sleeve following installation. Verify sleeve locations prior to concrete pours. Include link seals from pipe to sleeve following pipe installation. Reference Structural drawings for details.
- v. Include the protection of underground stub ups at SOG locations. Include the repair of 3 stub ups broken by other contractors in the base bid.
- w. Furnish and install drinking fountain complete shown on PS101 and P501
- x. BP-03 is advised at the top of all walls is glass storefront, additional offsets and piping may be necessary to route vent piping up through roof. BP-03 shall include all additional offsets and additional piping to traverse the vent pipe out to the roof in an inconspicuous location. Coordinate vent piping so penetration is not through the low point or valley of the roof.

HVAC:

- a. Provide all mechanical work indicated including but not limited to the following: Equipment, Unit heaters, sheet metal, dampers, insulation, fans, louvers, piping, GRDs, hoods, roof curbs, etc. All materials must be coordinated and installed per the contract drawings resulting with complete functioning facilities meeting all federal, state, and local guidelines.
- b. BP-03 is advised that the metal duct is a delegated design. Painting of duct as called for in specification 233113 shall be included in the scope of this contract.
- c. BP-03 is advised that a custom curb profile will be required to connect to the standing seam metal roof. This cost shall be carried in the base bid.
- d. BP-03 shall provide all supports necessary to suspend ductwork within the wet wall. BP-03 shall coordinate installation amongst in-wall rough-in.
- e. Provide all mechanical equipment shown, noted, or scheduled on the drawings. All mechanical equipment scheduled in the specifications.
- f. Provide all field coordination, layout, and field engineering required to perform the mechanical equipment and duct installation.
- g. Provide mechanical insulation complete. If not shown, follow industry and manufacturers standards. Include weatherproof jacketing for exposed exterior ductwork.
- h. Include coordination with BP-02 General Trades Contractor for final opening sizes and locations for all support steel necessary for the roof curbs.
- i. Provide all information required for connection of power to all HVAC equipment to the electrician. The BP-06 Electrical Contractor will provide power to all HVAC equipment.
- j. Provide all mechanical related testing, adjusting, balancing and inspection requirements as specified in the Contract Documents will be the responsibility of the BP-03 HVAC / Plumbing Contractor. Testing and balancing both air and water sides. Provide testing in sections / zones of piping and sections of ductwork in a manner that allows other trades to complete their work within the schedule. One or more of the following must witness and sign-off on each test: CM, Architect / Engineer. Provide 24-hour notice before testing takes place. Include all balancing valves and devices shown and as required to properly balance the system, whether on drawings or not. All reports must be submitted to engineer of record two weeks prior to substantial completion.
- k. Following the testing of the HVAC equipment, BP-03 shall execute the duct cleaning defined in specification 233113-3.8.
- Provide all temperature control work. All control wiring, conduit and raceway for equipment/devices is <u>included</u> in this scope of work. Include all temperature sensors, CO2 monitors and thermostats. To the fullest extent possible control, wiring shall be concealed in new wall sections. Install all wiring in metal conduit (EMT) at exposed locations, for example - open ceilings.
- m. BP-03 shall provide clear tamper-proof enclosures for any surface mounted unit controls open to the public. This requirement is not listed elsewhere in the documents.

3. The Scope of the HVAC / Plumbing Work Specifically Excludes the following:

- a. General Building Permit. (By Owner)
- b. Builder's Risk Insurance (By Owner)
- c. Materials Testing (By Owner)
- d. Painting of Exposed Plumbing Piping (By BP-02 GT)

- Site Plumbing more than 5'-0" outside of the building footprint (By BP-01 Site Work) except e. drinking fountains
 Temporary Water (By BP-01 Site Work Contractor)
- f.

END OF BP-03 **HVAC / PLUMBING CONTRACT**

BP-04 ELECTRICAL PRIME CONTRACTOR

1. Scope of Work:

The Work of this Agreement shall include, but not be limited to, all labor, materials, tools, equipment, plant, supplies, shop drawings, layout, transportation, supervision, contributions, and insurance compliance with all agencies (City, County, State and Federal as may be required), and shall cover all other items necessary for the performance of the **Electrical Work** BP-04 as shown detailed and/or implied by the following documents and as defined herein. This requisition is intended to supplement the Contract Specifications and drawings and must be used in coordination with these documents to fully understand the Scope of Work. Requirements given in one area thus are applicable to all. This requisition does not generally repeat scope requirements given in the Contract Documents but clarifies and coordinates the work. Work in the Documents repeated here is for specific coordination purposes. The scope of your work is generally defined as all work included in specification sections: Division 0, 1, 26, and 27 complete. In addition, include the following sections as they relate to your work 033001, 032100, 051200, 057300, 061053, 061600, 079200, Div 8, 22 and Div 23.

a. 01 11 00 Special Provisions and all Exhibit Attachments

2. The Scope of the Electrical Work includes, but is not limited to, providing the following:

GENERAL:

- a. The drawings are <u>diagrammatic</u> and may not be complete in every detail. They reflect the intent of the Architect/Engineer to provide a <u>complete</u> working system in compliance with all codes as shown by the documents. This contractor shall include any other equipment or devices necessary to provide a complete functioning system.
- b. The Work shall be provided in strict accordance with the Contract Documents and shall include, but not be limited to, providing all labor, supervision, materials, engineering, tools, equipment, hoisting, rigging, scaffolding, trade permits, applicable taxes, overhead expenses, warranties and guarantees to perform the complete scope as defined in this Scope of Work and as shown or described in the Contract Documents.
- c. Provide all Electrical permits, licenses, fees, inspection costs, required by the City of Buffalo.
- d. BP-04 Electrical Contractor shall field verify existing infrastructure at locations where new conduit & cable is illustrated to be installed prior to bid and include all costs. BP-04 Electrical Contractor to include any additional offsets and fittings necessary to install indicated points of connection prior to bid; no additional cost will be provided for any discrepancies.
- e. Include the coordination process as described in Specifications.
- f. Furnish and coordinate with the BP-02 General Trades Contractor all sleeves for this work that penetrate any drywall, concrete, and masonry work (via dimensioned transmitted drawing). BP-04 Electrical Contractor shall verify that the sleeves are installed in the correct location prior to the placement of concrete, drywall, or masonry. This Contractor shall provide necessary sawing and coring for penetrations through walls, floors, and ceilings where sleeves were not provided or improperly coordinated.
- g. Coordinate rough in with other prime Contractors.
- a. All surveying, line, and grade necessary to complete the work of this bid package. Refer to the special provisions for more information.

- h. Protection of "others" or existing in-place work, while performing the work of this contract. Example protection of finished flooring.
- i. Daily cleanup of own work to dumpsters provided by General Trades Contract is included. Include broom sweeping work areas daily.
- j. Any temporary weather protection required for work exposed to the environment. Note: BP-04 shall provide a secure, lockable, temporary weather protection enclosure for the temporary electrical service called for in the special provisions.
- k. Provide all in-wall blocking to support the work required under this contract that is furnished and installed by this contractor. All blocking shall be fire treated if not specified otherwise.
- I. Provide all concrete for conduit duct bank infill per detail 3/E501
- m. Provide 6" high concrete housekeeping pads for all floor mounted electrical equipment, unless specifically noted otherwise. Housekeeping pads may not be shown on architectural or structural drawings for equipment under this contract. The BP-02 General Trades Contractor will not be providing any housekeeping pads for MEP equipment.
- n. Include sealing of all walls, floor, and ceiling penetrations made by this contract in new and existing construction. Refer to the wall type/rating for required smoke, fire, or acoustical sealant. Assume all penetrations shall be sealed for sound at a minimum. Sealing of penetrations shall be performed as the work progresses.
- o. Furnish all access doors of adequate size and fire rating required for this contract work to satisfy all applicable codes. Also supply all labor to layout access door locations in the field and to coordinate with the BP-02 General Trades Contractor for turnover of access doors for their installation in new construction only. This contractor will be responsible for storing all access doors until ready for installation.
- p. GWB/stud work shall occur using the following sequence: BP-02 General Trades Contractor shall proceed with the track and metal studs for all full height partitions. BP-02 GT will install the spray foam insulation. The BP-03 Mechanical Contractor will clearly mark on the floor the duct sizes, centerlines, and bottom elevations where they penetrate walls. The BP-02 General Trades Contractor shall frame out for all ducts. In congested areas the GWB may need to be completed and fire-safed prior to the installation of the ductwork due to access restrictions. Installation of MEP work will follow normal coordination sequence (duct, plumbing, electrical). Firesafing of all penetrations through the GWB will be by each responsible MEP Trade. Trades will be provided a reasonable opportunity to complete rough-in or blocking. Each trade will indicate when rough-in for walls is complete and ready for inspection to proceed with GWB in the foreman's meetings held with the construction manager. If there is an area where installation interferences occur, the construction manager reserves the right to make a judgment decision on sequence.
- q. All core drilling, cutting, and patching required for floor, wall, and roofing penetrations. Patching all finishes to match in exposed areas is required by this contract. BP-04 owes watertight sealing for all penetrations for fixtures, boxes, and conduits on exterior of structure.
- r. All sealants (color to be determined from full range by Architect) between intersections with your work and any other material to ensure a complete, weatherproof, or finished system.
- s. Provide information necessary for the CM to coordinate this work with the Owners testing agency. Inform the CM no less than 48 hours ahead of time to allow the testing agency to schedule personnel to be on site to perform their testing with no delay to the schedule.
- All items listed in the Special provisions as by the BP-04 Electrical Contractor shall be included in this contract.
- u. Temporary, Power, lighting per the 011100 Special Provisions is by this contract.
- v. All electrical equipment and light fixture submittals shall be submitted within **20 Calendar days** of Notice to Proceed. All other shop drawings and submittals will be submitted within **45 Calendar days** of Notice to Proceed. Any late submittals that impact or delay the arrival of equipment to the

- project site, <u>BP-04 will be financially responsible</u> to provide all temporary measures, expediting or out of sequence work to achieve project completion as scheduled.
- w. This contract owes supplying temporary toilet facilities for it's own personnel for the duration of the electrical scope of work

DEMOLITION:

- a. Provide all demolition and disposal of existing infrastructure defined by contract.
- b. Disconnect all power (refer to Architectural, Plumbing, Mechanical, and Electrical Drawings). For the installation of this work.
- c. Include all required patching and infills required following the demolition performed by this contract.
- d. This contract shall install and fasten down ³/₄" temporary plywood protection over all holes created for the safety of all trades until permanent work is complete.
- e. Include disconnecting all existing equipment shown to be removed regardless of whether it is shown on the E series drawings. Coordinate with the plumbing, mechanical, and architectural drawings for a complete understanding of the project requirements.

ELECTRICAL & COMMUNICATION:

- a. Provide and coordinate incoming primary power transformer pad/base (excavation, concrete, stone, spill chamber etc.) The conductor from the pole including the transformer will be supplied by National Grid. The setting of transformer will be by the utility. Include in this contract all raceways (primary and secondary), grounding connections and associated utility company connection fees. Any concrete within the trench shall be provided by BP-04 Electrical Contract.
- b. BP-04 is advised that there is an open ESR account for the project site, it is 575 Fuhrmann Blvd. ESR #30607553, Unit 1 account #84613-82005 and Unit 2 account # 20813-87002. The National Grid Job Owner is Amy Kelly; amy.kelly@nationalgrid.com, 716-907-5197. National grid designer Shannon. Miller@nationalgrid.com.
- c. Furnish and install secondary power and distribution, including all gear, feeders, panels and metering for complete HV and LV systems. All Electrical-related testing and inspection requirements as specified in the Contract Documents will be the responsibility of the BP-04 Electrical Contractor.
- d. Furnish and install all power branch wiring, receptacles, special purpose receptacles, junction boxes, pull boxes, hand holes for a complete installation.
- e. Provide an all luminaries and a complete lighting control system with components reference E612. Inclusive of; but not limited to, touch screen controller and remote interface to the location defined by Owner.
- f. Prior to the start of rough-in work verify that all panels and feeders for new power circuits have the necessary available space to receive the new circuits. Notify the CM immediately if space is unavailable to execute the drawings as intended.
- g. BP-04 shall make contact and establish a new account for the project site, establish temporary service and include all usage feels for temporary electric for the duration of the project. Include a usage allowance of \$6,000. All other costs to establish the service shall be included in the base bid.
- h. BP-04 shall include all labor to coordinate and establish the new electrical service and metering to the site with National Grid. Inclusive of all secondary service pole, conduit wiring and other permits that may be required to
- i. Provide all site lighting poles, fixtures, concrete hand holes, conduit, wire, excavation and backfill for a complete installation. Reference Civil and Landscape drawings for more information.

- j. All electrical equipment shown, noted, or scheduled on the drawings. All electrical equipment scheduled in the specifications. Including Electric Vehicle Charger and telecom backboard.
- k. All inserts, hangers and support devices as required to complete this scope of work.
- BP-04 to seal and insulate all penetrations relating to their work (including electrical boxes) through exterior walls and roof panels
- m. All grounding ring, rods, connections, and testing for a complete system. Reference E501, EG101 as well as structural drawings. Note BP-04 will need to bond the exterior drinking fountain not indicated in the contract drawings.
- n. Any required excavation, bedding, concrete, rebar and backfill for electrical installations (ie. under slab, site light poles, and pavement sections) is by the BP-04 Electrical Contractor. BP-02 will not be providing any backfill within the building footprint or elsewhere.
- Provide dewatering for excavations performed under this contract.
- p. Provide restoration to the same condition in locations where other contractors work is completed prior (or in process). For example restoration in pavement areas and within the building footprint, as it was prior to the work of this contract.
- q. Conduit shall be concealed in new wall sections at all locations. All device boxes shall be flush with wall. No surface mounted raceway will be accepted in new construction.
- r. On all equipment provided by others, BP-04 Electrical Contractor shall wire and terminate power to each piece of equipment. Coordinate phasing and size with respective contractor.
- s. Include power to all overhead door connections. Low voltage work associated with the door controls will be by the BP-02 General Trades Contractor.
- t. All communications cabling, equipment, data, work complete, reference the drawings.
- u. Include all access control and video surveillance work complete.
- v. BP-04 Electrical Contractor is responsible for protecting panel boards from dust and debris during construction. This contract is responsible for all final cleaning of electrical panel boards (i.e., shop vac), transformers and devices prior to energizing equipment or installing devices.
- w. Include power to all equipment shown on Civil, HVAC, Plumbing, and Architectural Drawings as well as on electrical and Technology drawings. Coordinate with all trades. Coordinate motor sizes with Mechanical drawings and contractors.
- x. Provide all disconnects for the equipment if not factory provided. Reference E001 for drawing legend.
- y. The Mechanical Contractor will furnish all loose motor starters and controllers (and associated fusing) required to operate equipment furnished by their contracts. These loose starters shall be mounted by the BP-04 Electrical Contractor as close as possible to the equipment served. All power wiring from the electrical panel to the starter/disconnect shall be by the BP-04 Electrical Contractor. All interconnect wiring and power wiring from the starter to the equipment, shall be provided by the BP-04 Electrical Contractor. BP-03 Mechanical contractors shall provide all low voltage wiring and terminations required for complete operation.
- z. Coordinate with equipment representatives for field checkout and startup of all equipment and systems.
- aa. Refer to the plumbing fixture schedule for electrical requirements. Provide all power required to automatic faucets and flushometers as required.
- bb. Include connecting all roof mechanical equipment.
- cc. Include pipe/conduit portals for all roof penetrations made by this contract.
- dd. Include coordination with the CM as required during the course of the project for HVAC Equipment start up.

- ee. Provide labor & assistance to perform testing and startup during commissioning and training. This includes startup for temporary use as well as final acceptance at the end of the project. Reference Specification 260800 for further requirements and noted systems.
- ff. Include attending all required meetings. Refer to special provisions and summary of work for an understanding of requirements.
- gg. Provide 80 hours of electrical journeyman hours and a \$3,500 allowance included within the base bid. All unused portions will be credited back to the Owner.

3. The Scope of the Electrical Work Specifically Excludes the following:

- a. General Building Permit. (By Owner)
- b. Concrete Foundations
- c. Temperature Control Wiring (By HVAC)
- d. Builders Risk Insurance. (By Owner)
- e. Material Testing. (By Owner)
- f. Temperature control work. (By BP-03 Mechanical Contractor)

END OF BP BP-04
ELECTRICAL CONTRACT

SECTION 012100 - ALLOWANCES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements governing allowances.
 - 1. Certain items are specified in the Contract Documents by allowances. Allowances have been established in lieu of additional requirements and to defer selection of actual materials and equipment to a later date when additional information is available for evaluation. If necessary, additional requirements will be issued by Change Order.
- B. Types of allowances include the following:
 - 1. Lump-sum allowances.
 - 2. Unit-cost allowances.
 - 3. Quantity allowances.
 - 4. Contingency allowances.
 - 5. Testing and inspecting allowances.
- C. Related Sections include the following:
 - 1. Division 01 Section "Contract Modification Procedures" for procedures for submitting and handling Change Orders for allowances.
 - 2. Division 01 Section "Unit Prices" for procedures for using unit prices.
 - 3. Division 01 Section "Quality Requirements" for procedures governing the use of allowances for testing and inspecting.
 - 4. Divisions 02 through 49 Sections for items of Work covered by allowances.

1.3 SELECTION AND PURCHASE

- A. At the earliest practical date after award of the Contract, advise Landscape Architect of the date when final selection and purchase of each product or system described by an allowance must be completed to avoid delaying the Work.
- B. At Landscape Architect's request, obtain proposals for each allowance for use in making final selections. Include recommendations that are relevant to performing the Work.
- C. Purchase products and systems selected by Landscape Architect from the designated supplier.

ALLOWANCES 012100 - 1

1.4 SUBMITTALS

- A. Submit proposals for purchase of products or systems included in allowances, in the form specified for Change Orders.
- B. Submit invoices or delivery slips to show actual quantities of materials delivered to the site for use in fulfillment of each allowance.
- C. Coordinate and process submittals for allowance items in same manner as for other portions of the Work.

1.5 COORDINATION

A. Coordinate allowance items with other portions of the Work. Furnish templates as required to coordinate installation.

1.6 LUMP-SUM, UNIT-COST, AND QUANTITY ALLOWANCES

- A. Allowance shall include cost to Contractor of specific products and materials ordered by Owner under allowance and shall include taxes, freight, and delivery to Project site.
- B. Contractor's costs for receiving and handling at Project site, labor, installation, overhead and profit, and similar costs related to products and materials ordered by Owner under allowance shall be included as part of the Contract Sum and not part of the allowance.

1.7 CONTINGENCY ALLOWANCES

- A. Use the contingency allowance only as directed by Landscape Architect for Owner's purposes and only by Change Orders that indicate amounts to be charged to the allowance.
- B. Contractor's overhead, profit, and related costs for products and equipment ordered by Owner under the contingency allowance are included in the allowance and are not part of the Contract Sum. These costs include delivery, installation, taxes, insurance, equipment rental, and similar costs.
- C. Change Orders authorizing use of funds from the contingency allowance will include Contractor's related costs and reasonable overhead and profit margins.
- D. At Project closeout, credit unused amounts remaining in the contingency allowance to Owner by Change Order.

1.8 TESTING AND INSPECTING ALLOWANCES

A. Testing and inspecting allowances include the cost of engaging testing agencies, actual tests and inspections, and reporting results.

012100 - 2 ALLOWANCES

- B. The allowance does not include incidental labor required to assist the testing agency or costs for retesting if previous tests and inspections result in failure. The cost for incidental labor to assist the testing agency shall be included in the Contract Sum.
- C. Costs of services not required by the Contract Documents are not included in the allowance.
- D. At Project closeout, credit unused amounts remaining in the testing and inspecting allowance to Owner by Change Order.

1.9 UNUSED MATERIALS

- A. Return unused materials purchased under an allowance to manufacturer or supplier for credit to Owner, after installation has been completed and accepted.
 - 1. If requested by Landscape Architect, prepare unused material for storage by Owner when it is not economically practical to return the material for credit. If directed by Landscape Architect, deliver unused material to Owner's storage space. Otherwise, disposal of unused material is Contractor's responsibility.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine products covered by an allowance promptly on delivery for damage or defects. Return damaged or defective products to manufacturer for replacement.

3.2 PREPARATION

A. Coordinate materials and their installation for each allowance with related materials and installations to ensure that each allowance item is completely integrated and interfaced with related work.

3.3 SCHEDULE OF ALLOWANCES

- A. Allowance No. 1: Include excavation, handling and off-site disposal of 100 tons of contaminated soil.
- B. Allowance No. 2: Include excavation, handling and off-site disposal of 100 tons of construction and demolition (C&D) debris.

END OF SECTION 012100

ALLOWANCES 012100 - 3

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012100 - 4 ALLOWANCES

SECTION 012200 - UNIT PRICES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for unit prices.
- B. Related Sections include the following:
 - 1. Division 01 Section "Allowances" for procedures for using unit prices to adjust quantity allowances.
 - 2. Division 01 Section "Contract Modification Procedures" for procedures for submitting and handling Change Orders.
 - 3. Division 01 Section "Quality Requirements" for general testing/inspecting requirements.

1.3 DEFINITIONS

A. Unit price is an amount proposed by bidders, stated on the Bid Form, as a price per unit of measurement for materials or services added to or deducted from the Contract Sum by appropriate modification, if estimated quantities of Work required by the Contract Documents are increased or decreased.

1.4 PROCEDURES

- A. Unit prices include all necessary material, plus cost for delivery, installation, insurance, applicable taxes, overhead, and profit.
- B. Measurement and Payment: Refer to individual Specification Sections for work that requires establishment of unit prices. Methods of measurement and payment for unit prices are specified in those Sections.
- C. Owner reserves the right to reject Contractor's measurement of work-in-place that involves use of established unit prices and to have this work measured, at Owner's expense, by an independent surveyor acceptable to Contractor.
- D. List of Unit Prices: A list of unit prices is included in Part 3. Specification Sections referenced in the schedule contain requirements for materials described under each unit price.

UNIT PRICES 012200 - 1

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 LIST OF UNIT PRICES

- A. Unit Price No. 1: Excavation, Handling, and Off-Site Disposal of Contaminated Soil
 - 1. Description: Excavate, handle, transport and legally dispose of contaminated soil as non-hazardous waste in accordance with all applicable regulations. The soil may be mixed with other non-hazardous debris and waste. Assume disposal characterization testing and screening shall be included in unit cost.
 - 2. Unit of Measurement: Ton of contaminated material disposed of offsite.
 - 3. Quantity: 100 tons.
- B. Unit Price No. 2: Excavation, Handling, and Off-Site Disposal of Construction and Demolition (C&D) Debris
 - 1. Description: Excavate, handle, transport and legally dispose of C&D debris and other materials classified as solid waste in accordance with all applicable regulations.
 - 2. Unit of Measurement: Ton of C&D material disposed of offsite.
 - 3. Quantity: 100 tons.
- C. Unit Price No. 3: Cover Material General Fill
 - 1. Description: Provide and install cover materials according to Division 31 Section "Earth Moving." Cost shall include all labor and materials to procure and place materials meeting the criteria for cover material including NYSDEC DER-10 analytical characterization testing.
 - 2. Unit of Measurement: Cubic yard of material, in place.
- D. Unit Price No. 4: Demarcation Fabric
 - 1. Description: Provide and install demarcation fabric according to Division 31 Section "Earth Moving." Cost shall include all labor and materials to procure and place demarcation fabric.
 - 2. Unit of Measurement: Square yard of demarcation fabric, in place.
- E. Unit Price No. 5: Invasive Species Management
 - 1. Description: Treatment of invasive species shall be in accordance with New York State Department of Transportation Environmental Procedures Manual, Chapter 4.8, Invasive Species, Attachment 4, Invasive Species Control Practices for Maintenance and Construction and according to Division 31Section "Invasive Species Control and Management"
 - 2. Unit of Measurement: Square yard of treatment.
- F. Unit Price No. 6: Shoreline revetment stone

012200 - 2 UNIT PRICES

- 1. Description: Provide and place extra-heavy rip-rap material along the shoreline in a manner consistent with existing conditions.
- 2. Unit of Measurement: Tons of stone placed. The unit price bid per ton of this item shall include the costs of furnishing all materials, labor, and equipment necessary to satisfactorily complete the work.

G. Unit Price No. 7: Shoreline Trail Construction

- 1. Description: Demolish and remove failed portions of shoreline multi-use trail and replace with asphalt multi-use trail as detailed on D5/L501. Restore shoulder conditions with topsoil and seed where disturbed.
- 2. Unit of Measurement: Square yard of asphalt multi-use trail. The unit price bid per square yard of this item shall include the costs of furnishing all materials, labor, and equipment necessary to satisfactorily complete the work.

END OF SECTION 012200

UNIT PRICES 012200 - 3

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012200 - 4 UNIT PRICES

SECTION 012500 - SUBSTITUTION PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes administrative and procedural requirements for substitutions.

B. Related Requirements:

- 1. Document 000003 "Procurement Forms" for requirements for substitution requests prior to award of Contract.
- 2. Section 016000 "Product Requirements" for requirements for submitting comparable product submittals for products by listed manufacturers.

1.2 DEFINITIONS

- A. Substitutions: Changes in products, materials, equipment, and methods of construction from those required by the Contract Documents and proposed by Contractor.
 - 1. Substitutions for Cause: Changes proposed by Contractor that are required due to changed Project conditions, such as unavailability of product, regulatory changes, or unavailability of required warranty terms.
 - 2. Substitutions for Convenience: Changes proposed by Contractor or Owner that are not required in order to meet other Project requirements but may offer advantage to Contractor or Owner.

1.3 ACTION SUBMITTALS

- A. Substitution Requests: Submit three copies of each request for consideration. Identify product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles.
 - 1. Substitution Request Form: Use form provided in Project Manual.
 - 2. Documentation: Show compliance with requirements for substitutions and the following, as applicable:
 - a. Statement indicating why specified product or fabrication or installation method cannot be provided, if applicable.
 - b. Coordination of information, including a list of changes or revisions needed to other parts of the Work and to construction performed by Owner and separate contractors that will be necessary to accommodate proposed substitution.
 - c. Detailed comparison of significant qualities of proposed substitutions with those of the Work specified. Include annotated copy of applicable Specification Section. Significant qualities may include attributes, such as performance, weight, size, durability, visual effect, sustainable design characteristics, warranties, and specific

features and requirements indicated. Indicate deviations, if any, from the Work specified.

- d. Product Data, including drawings and descriptions of products and fabrication and installation procedures.
- e. Samples, where applicable or requested.
- f. Certificates and qualification data, where applicable or requested.
- g. List of similar installations for completed projects, with project names and addresses as well as names and addresses of architects and owners.
- h. Material test reports from a qualified testing agency, indicating and interpreting test results for compliance with requirements indicated.
- i. Research reports evidencing compliance with building code in effect for Project, from ICC-ES or the State of New York.
- j. Detailed comparison of Contractor's construction schedule using proposed substitutions with products specified for the Work, including effect on the overall Contract Time. If specified product or method of construction cannot be provided within the Contract Time, include letter from manufacturer, on manufacturer's letterhead, stating date of receipt of purchase order, lack of availability, or delays in delivery.
- k. Cost information, including a proposal of change, if any, in the Contract Sum.
- 1. Contractor's certification that proposed substitution complies with requirements in the Contract Documents, except as indicated in substitution request, is compatible with related materials and is appropriate for applications indicated.
- m. Contractor's waiver of rights to additional payment or time that may subsequently become necessary because of failure of proposed substitution to produce indicated results.
- 3. Architect's Action: If necessary, Architect will request additional information or documentation for evaluation within seven days of receipt of a request for substitution. Architect will notify Contractor through Construction Manager of acceptance or rejection of proposed substitution within 15 days of receipt of request, or seven days of receipt of additional information or documentation, whichever is later.
 - a. Forms of Acceptance: Change Order, Construction Change Directive, or Architect's Supplemental Instructions for minor changes in the Work.
 - b. Use product specified if Architect does not issue a decision on use of a proposed substitution within time allocated.

1.4 QUALITY ASSURANCE

A. Compatibility of Substitutions: Investigate and document compatibility of proposed substitution with related products and materials. Engage a qualified testing agency to perform compatibility tests recommended by manufacturers.

1.5 PROCEDURES

A. Coordination: Revise or adjust affected work as necessary to integrate work of the approved substitutions.

1.6 SUBSTITUTIONS

- A. Substitutions for Cause: Submit requests for substitution immediately on discovery of need for change, but not later than 15 days prior to time required for preparation and review of related submittals.
 - 1. Conditions: Architect will consider Contractor's request for substitution when the following conditions are satisfied. If the following conditions are not satisfied, Architect will return requests without action, except to record noncompliance with these requirements:
 - a. Requested substitution is consistent with the Contract Documents and will produce indicated results.
 - b. Substitution request is fully documented and properly submitted.
 - c. Requested substitution will not adversely affect Contractor's construction schedule.
 - d. Requested substitution has received necessary approvals of authorities having jurisdiction.
 - e. Requested substitution is compatible with other portions of the Work.
 - f. Requested substitution has been coordinated with other portions of the Work.
 - g. Requested substitution provides specified warranty.
 - h. If requested substitution involves more than one contractor, requested substitution has been coordinated with other portions of the Work, is uniform and consistent, is compatible with other products, and is acceptable to all contractors involved.
- B. Substitutions for Convenience: Architect will consider requests for substitution if received within 60 days after commencement of the Work. Requests received after that time may be considered or rejected at discretion of Architect.
 - 1. Conditions: Architect will consider Contractor's request for substitution when the following conditions are satisfied. If the following conditions are not satisfied, Architect will return requests without action, except to record noncompliance with these requirements:
 - a. Requested substitution offers Owner a substantial advantage in cost, time, energy conservation, or other considerations, after deducting additional responsibilities Owner must assume. Owner's additional responsibilities may include compensation to Architect for redesign and evaluation services, increased cost of other construction by Owner, and similar considerations.
 - b. Requested substitution does not require extensive revisions to the Contract Documents.
 - c. Requested substitution is consistent with the Contract Documents and will produce indicated results.
 - d. Substitution request is fully documented and properly submitted.
 - e. Requested substitution will not adversely affect Contractor's construction schedule.
 - f. Requested substitution has received necessary approvals of authorities having jurisdiction.
 - g. Requested substitution is compatible with other portions of the Work.
 - h. Requested substitution has been coordinated with other portions of the Work.
 - i. Requested substitution provides specified warranty.

j. If requested substitution involves more than one contractor, requested substitution has been coordinated with other portions of the Work, is uniform and consistent, is compatible with other products, and is acceptable to all contractors involved.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 012500

SECTION 012600 - CONTRACT MODIFICATION PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes administrative and procedural requirements for handling and processing Contract modifications.

1.2 MINOR CHANGES IN THE WORK

- A. Architect will issue through Construction Manager supplemental instructions authorizing minor changes in the Work, not involving adjustment to the Contract Sum or the Contract Time, on webbased Project management software.
 - 1. Work Change Proposal Requests issued by Architect are not instructions either to stop work in progress or to execute the proposed change.

1.3 PROPOSAL REQUESTS

- A. Owner-Initiated Proposal Requests: Architect or Construction Manager will issue a detailed description of proposed changes in the Work that may require adjustment to the Contract Sum or the Contract Time. If necessary, the description will include supplemental or revised Drawings and Specifications.
 - 1. Work Change Proposal Requests issued by Architect or Construction Manager are not instructions either to stop work in progress or to execute the proposed change.
 - 2. Within time specified in Proposal Request or 20 days, when not otherwise specified, after receipt of Proposal Request, submit a quotation estimating cost adjustments to the Contract Sum and the Contract Time necessary to execute the change.
 - a. Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities.
 - b. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
 - c. Include costs of labor and supervision directly attributable to the change.
 - d. Include an updated Contractor's construction schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times, and activity relationship. Use available total float before requesting an extension of the Contract Time.
- B. Contractor-Initiated Proposals: If latent or changed conditions require modifications to the Contract, Contractor may initiate a claim by submitting a request for a change to Construction Manager.

- 1. Include a statement outlining reasons for the change and the effect of the change on the Work. Provide a complete description of the proposed change. Indicate the effect of the proposed change on the Contract Sum and the Contract Time.
- 2. Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities.
- 3. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
- 4. Include costs of labor and supervision directly attributable to the change.
- 5. Include an updated Contractor's construction schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times, and activity relationship. Use available total float before requesting an extension of the Contract Time.
- 6. Comply with requirements in Section 012500 "Substitution Procedures" if the proposed change requires substitution of one product or system for product or system specified.

1.4 CHANGE ORDER PROCEDURES

A. On Owner's approval of a Work Change Proposal Request, Construction Manager will issue a Change Order for signatures of Owner and Contractor on form provided as part of web-based Project management software.

1.5 CONSTRUCTION CHANGE DIRECTIVE

- A. Construction Change Directive: Architect or Construction Manager may issue a Construction Change Directive on form provided as part of web-based Project management software. Construction Change Directive instructs Contractor to proceed with a change in the Work, for subsequent inclusion in a Change Order.
 - 1. Construction Change Directive contains a complete description of change in the Work. It also designates method to be followed to determine change in the Contract Sum or the Contract Time.
- B. Documentation: Maintain detailed records on a time and material basis of work required by the Construction Change Directive.
 - 1. After completion of change, submit an itemized account and supporting data necessary to substantiate cost and time adjustments to the Contract.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 012600

SECTION 012900 - PAYMENT PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes administrative and procedural requirements necessary to prepare and process Applications for Payment.

1.2 SCHEDULE OF VALUES

- A. Coordination: Coordinate preparation of the schedule of values with preparation of Contractor's construction schedule.
 - 1. Coordinate line items in the schedule of values with items required to be indicated as separate activities in Contractor's construction schedule.
 - 2. Submit the schedule of values to Architect through Construction Manager at earliest possible date, but no later than fifteen (15) days after the formal Notice To Proceed.
- B. Format and Content: Use Project Manual table of contents as a guide to establish line items for the schedule of values. Provide at least one line item for each Specification Section.
 - 1. Arrange schedule of values consistent with format of AIA Document G703.
 - 2. Provide a breakdown of the Contract Sum in enough detail to facilitate continued evaluation of Applications for Payment and progress reports. Provide multiple line items for principal subcontract amounts in excess of five percent of the Contract Sum.
 - 3. Provide a separate line item in the schedule of values for each part of the Work where Applications for Payment may include materials or equipment purchased or fabricated and stored, but not yet installed.
 - a. Differentiate between items stored on-site and items stored off-site.
 - 4. Allowances: Provide a separate line item in the schedule of values for each allowance. Show line-item value of unit-cost allowances, as a product of the unit cost, multiplied by measured quantity. Use information indicated in the Contract Documents to determine quantities.
 - 5. Overhead Costs: Include total cost and proportionate share of general overhead and profit for each line item.
 - 6. Overhead Costs: Show cost of temporary facilities and other major cost items that are not direct cost of actual work-in-place as separate line items.
 - 7. Closeout Costs. Include separate line items under Contractor and principal subcontracts for Project closeout requirements in accordance with the values as identified in Section 011100 "Special Provisions" Paragraph 3.3.
 - 8. Schedule of Values Revisions: Revise the schedule of values when Change Orders or Construction Change Directives result in a change in the Contract Sum. Include at least one separate line item for each Change Order and Construction Change Directive.

1.3 APPLICATIONS FOR PAYMENT

- A. Each Application for Payment following the initial Application for Payment shall be consistent with previous applications and payments as certified by Architect and Construction Manager and paid for by Owner.
- B. Payment Application Times: Submit final Application for Payment to Architect by the last day of the month. The period covered by each Application for Payment is one month, ending on the last day of the month.
 - 1. Submit draft copy of Application for Payment by the twentieth (20th) day of each month for review by Architect and Construction Manager.
 - 2. Draft copies will be returned for corrections by the twenty-fifth (25th) day of each month.
- C. Application for Payment Forms: Use AIA Document G702 and AIA Document G703 as form for Applications for Payment.
- D. Application Preparation: Complete every entry on form. Notarize and execute by a person authorized to sign legal documents on behalf of Contractor. Construction Manager will return incomplete applications without action.
 - 1. Entries shall match data on the schedule of values and Contractor's construction schedule. Use updated schedules if revisions were made.
 - 2. Include amounts for work completed following previous Application for Payment, whether or not payment has been received. Include only amounts for work completed at time of Application for Payment.
 - 3. Include amounts of Change Orders and Construction Change Directives issued before last day of construction period covered by application.
- E. Transmittal: Submit four signed and notarized original copies of each Application for Payment to Construction Manager by upload to web-based Project management software website. Enter required data in web-based software site to fully identify each Application. One copy shall include waivers of lien and similar attachments if required.
 - 1. Transmit each copy with a transmittal form listing attachments and recording appropriate information about application.
- F. Waivers of Mechanic's Lien: With each Application for Payment, submit waivers of mechanic's lien from subcontractors, sub-subcontractors, and suppliers for construction period covered by the previous application.
 - 1. Submit partial waivers on each item for amount requested in previous application, after deduction for retainage, on each item.
 - 2. When an application shows completion of an item, submit conditional final or full waivers.
 - 3. Owner reserves the right to designate which entities involved in the Work must submit waivers
 - 4. Submit final Application for Payment with or preceded by conditional final waivers from every entity involved with performance of the Work covered by the application who is lawfully entitled to a lien.
 - 5. Waiver Forms: Submit executed waivers of lien on forms acceptable to Owner.

- G. Initial Application for Payment: Administrative actions and submittals that must precede or coincide with submittal of first Application for Payment include the following:
 - 1. List of subcontractors.
 - 2. Schedule of values.
 - 3. Contractor's construction schedule (preliminary if not final).
 - 4. Products list (preliminary if not final).
 - 5. Schedule of unit prices.
 - 6. Submittal schedule (preliminary if not final).
 - 7. List of Contractor's staff assignments.
 - 8. List of Contractor's principal consultants.
 - 9. Copies of building permits.
 - 10. Copies of authorizations and licenses from authorities having jurisdiction for performance of the Work.
 - 11. Initial progress report.
 - 12. Report of preconstruction conference.
 - 13. Certificates of insurance and insurance policies.
 - 14. Performance and payment bonds.
 - 15. Data needed to acquire Owner's insurance.
- H. Application for Payment at Substantial Completion: After Architect issues the Certificate of Substantial Completion, submit an Application for Payment showing 100 percent completion for portion of the Work claimed as substantially complete.
 - 1. Include documentation supporting claim that the Work is substantially complete and a statement showing an accounting of changes to the Contract Sum.
 - 2. This application shall reflect Certificate(s) of Substantial Completion issued previously for Owner occupancy of designated portions of the Work.
- I. Final Payment Application: After completing Project closeout requirements, submit final Application for Payment with releases and supporting documentation not previously submitted and accepted, including, but not limited, to the following:
 - 1. Evidence of completion of Project closeout requirements.
 - 2. Insurance certificates for products and completed operations where required and proof that taxes, fees, and similar obligations were paid.
 - 3. Updated final statement, accounting for final changes to the Contract Sum.
 - 4. AIA Document G706.
 - 5. AIA Document G706A.
 - 6. AIA Document G707.
 - 7. Evidence that claims have been settled.
 - 8. Final meter readings for utilities, a measured record of stored fuel, and similar data as of date of Substantial Completion or when Owner took possession of and assumed responsibility for corresponding elements of the Work.
 - 9. Final liquidated damages settlement statement.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 012900

SECTION 013100 - PROJECT MANAGEMENT AND COORDINATION

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes administrative provisions for coordinating construction operations on Project including, but not limited to, the following:
 - 1. General coordination procedures.
 - 2. Coordination drawings.
 - 3. RFIs
 - 4. Digital project management procedures.
 - 5. Project meetings.

B. Related Requirements:

1. Section 017300 "Execution" for procedures for coordinating general installation and field-engineering services, including establishment of benchmarks and control points.

1.2 INFORMATIONAL SUBMITTALS

- A. Subcontract List: Prepare a written summary identifying individuals or firms proposed for each portion of the Work, including those who are to furnish products or equipment fabricated to a special design. Include the following information in tabular form:
 - 1. Name, address, telephone number, and email address of entity performing subcontract or supplying products.
 - 2. Number and title of related Specification Section(s) covered by subcontract.
 - 3. Drawing number and detail references, as appropriate, covered by subcontract.

1.3 GENERAL COORDINATION PROCEDURES

- A. Coordination: Coordinate construction operations included in different Sections of the Specifications to ensure efficient and orderly installation of each part of the Work. Coordinate construction operations included in different Sections that depend on each other for proper installation, connection, and operation.
 - 1. Schedule construction operations in sequence required to obtain the best results where installation of one part of the Work depends on installation of other components, before or after its own installation.
 - 2. Coordinate installation of different components to ensure maximum performance and accessibility for required maintenance, service, and repair.
 - 3. Make adequate provisions to accommodate items scheduled for later installation.

- B. Administrative Procedures: Coordinate scheduling and timing of required administrative procedures with other construction activities to avoid conflicts and to ensure orderly progress of the Work. Such administrative activities include, but are not limited to, the following:
 - 1. Preparation of Contractor's construction schedule.
 - 2. Preparation of the schedule of values.
 - 3. Installation and removal of temporary facilities and controls.
 - 4. Delivery and processing of submittals.
 - 5. Progress meetings.
 - 6. Preinstallation conferences.
 - 7. Project closeout activities.
 - 8. Startup and adjustment of systems.

1.4 COORDINATION DRAWINGS

- A. Coordination Drawings, General: Prepare coordination drawings according to requirements in individual Sections, and additionally where installation is not completely indicated on Shop Drawings, where limited space availability necessitates coordination, or if coordination is required to facilitate integration of products and materials fabricated or installed by more than one entity.
 - 1. Content: Project-specific information, drawn accurately to a scale large enough to indicate and resolve conflicts. Do not base coordination drawings on standard printed data. Include the following information, as applicable:
 - a. Indicate functional and spatial relationships of components of architectural, structural, civil, mechanical, and electrical systems.
 - Indicate dimensions shown on Drawings. Specifically note dimensions that appear
 to be in conflict with submitted equipment and minimum clearance requirements.
 Provide alternative sketches to Architect indicating proposed resolution of such
 conflicts. Minor dimension changes and difficult installations will not be considered
 changes to the Contract.
- B. Coordination Drawing Organization: Organize coordination drawings as follows:
 - 1. Floor Plans and Reflected Ceiling Plans: Show architectural and structural elements, and mechanical, plumbing, fire-protection, fire-alarm, and electrical Work. Show locations of visible ceiling-mounted devices relative to acoustical ceiling grid. Supplement plan drawings with section drawings where required to adequately represent the Work.
 - 2. Plenum Space: Indicate subframing for support of ceiling and wall systems, mechanical and electrical equipment, and related Work. Locate components within plenums to accommodate layout of light fixtures and other components indicated on Drawings. Indicate areas of conflict between light fixtures and other components.
 - 3. Mechanical Rooms: Provide coordination drawings for mechanical rooms showing plans and elevations of mechanical, plumbing, fire-alarm, and electrical equipment.
 - 4. Slab Edge and Embedded Items: Indicate slab edge locations and sizes and locations of embedded items for metal fabrications, sleeves, anchor bolts, bearing plates, angles, door floor closers, slab depressions for floor finishes, curbs and housekeeping pads, and similar items.

- 5. Review: Architect will review coordination drawings to confirm that, in general, the Work is being coordinated, but not for the details of the coordination, which are Contractor's responsibility. If Architect determines that coordination drawings are not being prepared in sufficient scope or detail, or are otherwise deficient, Architect will so inform Contractor, who shall make suitable modifications and resubmit.
- C. Coordination Digital Data Files: Prepare coordination digital data files according to the following requirements:
 - 1. File Preparation Format:
 - a. Same digital data software program, version, and operating system as original Drawings.
 - b. DWG, Version 2018, operating in Microsoft Windows operating system.
 - 2. File Submittal Format: Submit or post coordination drawing files using PDF format.
 - 3. BIM File Incorporation: Develop and incorporate coordination drawing files into BIM established for Project.
 - 4. Architect will furnish Contractor one set of digital data files of Drawings for use in preparing coordination digital data files.
 - a. Architect makes no representations as to the accuracy or completeness of digital data files as they relate to Drawings.
 - b. Digital Data Software Program: Drawings are available in AutoCAD 2018 and/or Revit 2019 for Microsoft Windows.
 - c. Contractor shall execute a data licensing agreement in the form of Agreement form acceptable to Owner and Architect.

1.5 REQUEST FOR INFORMATION (RFI)

- A. General: Immediately on discovery of the need for additional information, clarification, or interpretation of the Contract Documents, Contractor shall prepare and submit an RFI in the form specified.
 - 1. Architect / Construction Manager will return without response those RFIs submitted to Architect / Construction Manager by other entities controlled by Contractor.
 - 2. Coordinate and submit RFIs in a prompt manner so as to avoid delays in Contractor's work or work of subcontractors.
- B. Content of the RFI: Include a detailed, legible description of item needing information or interpretation and the following:
 - 1. Owner name.
 - 2. Owner's Project number.
 - 3. Name of Architect and Construction Manager.
 - 4. Architect's Project number.
 - 5. Date.
 - 6. Name of Contractor.
 - 7. RFI number, numbered sequentially.

- 8. RFI subject.
- 9. Specification Section number and title and related paragraphs, as appropriate.
- 10. Drawing number and detail references, as appropriate.
- 11. Field dimensions and conditions, as appropriate.
- 12. Contractor's suggested resolution. If Contractor's suggested resolution impacts the Contract Time or the Contract Sum, Contractor shall state impact in the RFI.
- 13. Contractor's signature.
- 14. Attachments: Include sketches, descriptions, measurements, photos, Product Data, Shop Drawings, coordination drawings, and other information necessary to fully describe items needing interpretation.
- C. RFI Forms: Software-generated form with substantially the same content as indicated above, acceptable to Architect.
- D. Architect's and Construction Manager's Action: Architect and Construction Manager will review each RFI, determine action required, and respond. Allow seven days for Architect's response for each RFI. RFIs received by Architect or Construction Manager after 1:00 p.m. will be considered as received the following working day.
 - 1. The following Contractor-generated RFIs will be returned without action:
 - a. Requests for approval of submittals.
 - b. Requests for approval of substitutions.
 - c. Requests for approval of Contractor's means and methods.
 - d. Requests for coordination information already indicated in the Contract Documents.
 - e. Requests for adjustments in the Contract Time or the Contract Sum.
 - f. Requests for interpretation of Architect's actions on submittals.
 - g. Incomplete RFIs or inaccurately prepared RFIs.
 - 2. Architect's action may include a request for additional information, in which case Architect's time for response will date from time of receipt by Architect or Construction Manager of additional information.
 - 3. Architect's action on RFIs that may result in a change to the Contract Time or the Contract Sum may be eligible for Contractor to submit Change Proposal according to Section 012600 "Contract Modification Procedures."
 - a. If Contractor believes the RFI response warrants change in the Contract Time or the Contract Sum, notify Architect and Construction Manager in writing within five days of receipt of the RFI response.
- E. RFI Log: Prepare, maintain, and submit a tabular log of RFIs organized by the RFI number. Submit log weekly. Use software log that is part of web-based Project management software. Include the following:
 - 1. Project name.
 - 2. Name and address of Contractor.
 - 3. Name and address of Architect and Construction Manager.
 - 4. RFI number including RFIs that were returned without action or withdrawn.
 - 5. RFI description.
 - 6. Date the RFI was submitted.

- 7. Date Architect's and Construction Manager's response was received.
- F. On receipt of Architect's and Construction Manager's action, update the RFI log and immediately distribute the RFI response to affected parties. Review response and notify Architect and Construction Manager within three days if Contractor disagrees with response.

1.6 DIGITAL PROJECT MANAGEMENT PROCEDURES

- A. Use of Architect's Digital Data Files: Digital data files of Architect's BIM model and CAD drawings will be provided by Architect for Contractor's use during construction.
 - 1. Digital data files may be used by Contractor in preparing coordination drawings
 - 2. Architect makes no representations as to the accuracy or completeness of digital data files as they relate to Contract Drawings.
 - 3. Digital Drawing Software Program: Contract Drawings are available in current AutoCAD and/or Revit for Microsoft Windows.
 - 4. Contractor shall execute a data licensing agreement in the form of Agreement form acceptable to Owner and Architect.
 - a. Subcontractors, and other parties granted access by Contractor to Architect's digital data files shall execute a data licensing agreement in the form of Agreement acceptable to Owner and Architect.
 - 5. The following digital data files will be furnished for each appropriate discipline:
 - a. Floor plans.
 - b. Reflected ceiling plans.
- B. Web-Based Project Management Software Package: Use Construction Manager's web-based Project management software package for purposes of hosting and managing Project communication and documentation until Final Completion.
 - 1. Web-based Project management software includes, at a minimum, the following features:
 - a. Compilation of Project data, including Contractor, subcontractors, Architect, architect's consultants, Owner, and other entities involved in Project. Include names of individuals and contact information.
 - b. Access control for each entity for each workflow process, to determine entity's digital rights to create, modify, view, and print documents.
 - c. Document workflow planning, allowing customization of workflow between project entities.
 - d. Creation, logging, tracking, and notification for Project communications required in other Specification Sections, including, but not limited to, RFIs, submittals, Minor Changes in the Work, Construction Change Directives, and Change Orders.
 - e. Track status of each Project communication in real time, and log time and date when responses are provided.
 - f. Procedures for handling PDFs or similar file formats, allowing markups by each entity. Provide security features to lock markups against changes once submitted.
 - g. Processing and tracking of payment applications.
 - h. Processing and tracking of contract modifications.

- i. Creating and distributing meeting minutes.
- j. Document management for Drawings, Specifications, and coordination drawings, including revision control.
- k. Management of construction progress photographs.
- 1. Mobile device compatibility, including smartphones and tablets.
- 2. At completion of Project, provide digital archive in format that is readable by common desktop software applications in format acceptable to Architect. Provide data in locked format to prevent further changes.
- C. PDF Document Preparation: Where PDFs are required to be submitted to Architect, prepare as follows:
 - 1. Assemble complete submittal package into a single indexed file incorporating submittal requirements of a single Specification Section and transmittal form with links enabling navigation to each item.
 - 2. Name file with submittal number or other unique identifier, including revision identifier.
 - 3. Certifications: Where digitally submitted certificates and certifications are required, provide a digital signature with digital certificate on where indicated.

1.7 PROJECT MEETINGS

- A. General: Construction Manager will schedule and conduct meetings and conferences at Project site unless otherwise indicated.
- B. Preconstruction Conference: Construction Manager will schedule and conduct a preconstruction conference before starting construction, at a time convenient to Owner and Architect, but no later than 15 days after execution of the Agreement.
 - 1. Attendees: Authorized representatives of Owner, Construction Manager, Architect, and their consultants; Contractor and its superintendent; major subcontractors; suppliers; and other concerned parties shall attend the conference. Participants at the conference shall be familiar with Project and authorized to conclude matters relating to the Work.
 - 2. Agenda: Discuss items of significance that could affect progress, including the following:
 - a. Responsibilities and personnel assignments.
 - b. Tentative construction schedule.
 - c. Critical work sequencing and long lead items.
 - d. Designation of key personnel and their duties.
 - e. Lines of communications.
 - f. Use of web-based Project software.
 - g. Procedures for processing field decisions and Change Orders.
 - h. Procedures for RFIs.
 - i. Procedures for testing and inspecting.
 - j. Procedures for processing Applications for Payment.
 - k. Distribution of the Contract Documents.
 - 1. Submittal procedures.
 - m. Preparation of Record Documents.
 - n. Use of the premises and existing building.
 - o. Work restrictions.

- p. Working hours.
- q. Owner's occupancy requirements.
- r. Responsibility for temporary facilities and controls.
- s. Procedures for moisture and mold control.
- t. Procedures for disruptions and shutdowns.
- u. Construction waste management and recycling.
- v. Parking availability.
- w. Office, work, and storage areas.
- x. Equipment deliveries and priorities.
- y. First aid.
- z. Security.
- aa. Progress cleaning.
- 3. Minutes: Entity responsible for conducting meeting will record and distribute meeting minutes.
- C. Preinstallation Conferences: Conduct a preinstallation conference at Project site before each construction activity when required by other sections and when required for coordination with other construction.
 - 1. Attendees: Installer and representatives of manufacturers and fabricators involved in or affected by the installation and its coordination or integration with other materials and installations that have preceded or will follow, shall attend the meeting. Advise Architect, Construction Manager of scheduled meeting dates.
 - 2. Agenda: Review progress of other construction activities and preparations for the particular activity under consideration, including requirements for the following:
 - a. Contract Documents.
 - b. Options.
 - c. Related RFIs.
 - d. Related Change Orders.
 - e. Purchases.
 - f. Deliveries.
 - g. Submittals.
 - h. Review of mockups.
 - i. Possible conflicts.
 - j. Compatibility requirements.
 - k. Time schedules.
 - 1. Weather limitations.
 - m. Manufacturer's written instructions.
 - n. Warranty requirements.
 - o. Compatibility of materials.
 - p. Acceptability of substrates.
 - q. Temporary facilities and controls.
 - r. Space and access limitations.
 - s. Regulations of authorities having jurisdiction.
 - t. Testing and inspecting requirements.
 - u. Installation procedures.
 - v. Coordination with other work.
 - w. Required performance results.

- x. Protection of adjacent work.
- y. Protection of construction and personnel.
- 3. Record significant conference discussions, agreements, and disagreements, including required corrective measures and actions.
- 4. Reporting: Distribute minutes of the meeting to each party present and to other parties requiring information.
- 5. Do not proceed with installation if the conference cannot be successfully concluded. Initiate whatever actions are necessary to resolve impediments to performance of the Work and reconvene the conference at earliest feasible date.
- D. Progress Meetings: Construction Manager will conduct progress meetings at regular intervals.
 - 1. Coordinate dates of meetings with preparation of payment requests.
 - 2. Attendees: In addition to representatives of Owner, Construction Manager, and Architect, each contractor, subcontractor, supplier, and other entity concerned with current progress or involved in planning, coordination, or performance of future activities shall be represented at these meetings. All participants at the meeting shall be familiar with Project and authorized to conclude matters relating to the Work.
 - 3. Agenda: Review and correct or approve minutes of previous progress meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to status of Project.
 - a. Contractor's Construction Schedule: Review progress since the last meeting. Determine whether each activity is on time, ahead of schedule, or behind schedule, in relation to Contractor's construction schedule. Determine how construction behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed within the Contract Time.
 - 1) Review schedule for next period.
 - b. Review present and future needs of each entity present, including the following:
 - 1) Interface requirements.
 - 2) Sequence of operations.
 - 3) Resolution of BIM component conflicts.
 - 4) Status of submittals.
 - 5) Status of sustainable design documentation.
 - 6) Deliveries.
 - 7) Off-site fabrication.
 - 8) Access.
 - 9) Site use.
 - 10) Temporary facilities and controls.
 - 11) Progress cleaning.
 - 12) Quality and work standards.
 - 13) Status of correction of deficient items.
 - 14) Field observations.
 - 15) Status of RFIs.
 - 16) Status of Proposal Requests.

- 17) Pending changes.
- 18) Status of Change Orders.
- 19) Pending claims and disputes.
- 20) Documentation of information for payment requests.
- 4. Minutes: Entity responsible for conducting the meeting will record and distribute the meeting minutes to each party present and to parties requiring information.
 - a. Schedule Updating: Revise Contractor's construction schedule after each progress meeting where revisions to the schedule have been made or recognized. Issue revised schedule concurrently with the report of each meeting.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 013100

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SECTION 013200 - CONSTRUCTION PROGRESS DOCUMENTATION

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes administrative and procedural requirements for documenting the progress of construction during performance of the Work, including the following:
 - 1. Contractor's Construction Schedule.
 - 2. Construction schedule updating reports.
 - 3. Daily construction reports.
 - 4. Site condition reports.

1.2 DEFINITIONS

- A. Activity: A discrete part of a project that can be identified for planning, scheduling, monitoring, and controlling the construction Project. Activities included in a construction schedule consume time and resources.
 - 1. Critical Activity: An activity on the critical path that must start and finish on the planned early start and finish times.
 - 2. Predecessor Activity: An activity that precedes another activity in the network.
 - 3. Successor Activity: An activity that follows another activity in the network.
- B. CPM: Critical path method, which is a method of planning and scheduling a construction project where activities are arranged based on activity relationships. Network calculations determine when activities can be performed and the critical path of Project.
- C. Critical Path: The longest connected chain of interdependent activities through the network schedule that establishes the minimum overall Project duration and contains no float.
- D. Event: The starting or ending point of an activity.
- E. Float: The measure of leeway in starting and completing an activity.
 - 1. Float time is not for the exclusive use or benefit of either Owner or Contractor, but is a jointly owned, expiring Project resource available to both parties as needed to meet schedule milestones and Contract completion date.
 - 2. Free float is the amount of time an activity can be delayed without adversely affecting the early start of the successor activity.
 - 3. Total float is the measure of leeway in starting or completing an activity without adversely affecting the planned Project completion date.

1.3 INFORMATIONAL SUBMITTALS

- A. Format for Submittals: Submit required submittals in the following format:
 - 1. Working electronic copy of schedule file.
 - 2. PDF file.
 - 3. Three paper copies, of sufficient size to display entire period or schedule, as required.
- B. Startup Network Diagram: Of size required to display entire network for entire construction period. Show logic ties for activities.
- C. Contractor's Construction Schedule: Initial schedule, of size required to display entire schedule for entire construction period.
 - 1. Submit a working digital copy of schedule, using software indicated, and labeled to comply with requirements for submittals.
- D. CPM Reports: Concurrent with CPM schedule, submit each of the following reports. Format for each activity in reports shall contain activity number, activity description, original duration, remaining duration, early start date, early finish date, late start date, late finish date, and total float in calendar days.
 - 1. Activity Report: List of activities sorted by activity number and then early start date, or actual start date if known.
 - 2. Logic Report: List of preceding and succeeding activities for each activity, sorted in ascending order by activity number and then by early start date, or actual start date if known.
 - 3. Total Float Report: List of activities sorted in ascending order of total float.
- E. Construction Schedule Updating Reports: Submit with Applications for Payment.
- F. Construction Reports: Submit at monthly intervals.
- G. Site Condition Reports: Submit at time of discovery of differing conditions.

1.4 COORDINATION

- A. Coordinate Contractor's Construction Schedule with the schedule of values, list of subcontracts, submittal schedule, progress reports, payment requests, and other required schedules and reports.
 - 1. Secure time commitments for performing critical elements of the Work from entities involved.
 - 2. Coordinate each construction activity in the network with other activities and schedule them in proper sequence.

1.5 CONTRACTOR'S CONSTRUCTION SCHEDULE

A. Computer Scheduling Software: Prepare schedules using current version of a program that has been developed specifically to manage construction schedules.

- 1. Use Primavera P6 for current Windows operating system.
- B. Time Frame: Extend schedule from date established for the Notice of Award to date of final completion.
 - 1. Contract completion date shall not be changed by submission of a schedule that shows an early completion date, unless specifically authorized by Change Order.
- C. Activities: Treat each floor or separate area as a separate numbered activity for each main element of the Work. Comply with the following:
 - 1. Activity Duration: Define activities so no activity is longer than five (5) days, unless specifically allowed by Architect.
 - 2. Procurement Activities: Include procurement process activities for the following long lead items and major items, requiring a cycle of more than 20 days, as separate activities in schedule. Procurement cycle activities include, but are not limited to, submittals, approvals, purchasing, fabrication, and delivery.
 - 3. Submittal Review Time: Include review and resubmittal times indicated in Section 013300 "Submittal Procedures" in schedule. Coordinate submittal review times in Contractor's Construction Schedule with submittal schedule.
 - 4. Startup and Testing Time: Include no fewer than 15 days for startup and testing.
 - 5. Commissioning Time: Include no fewer than 15 days for commissioning.
 - 6. Substantial Completion: Indicate completion in advance of date established for Substantial Completion, and allow time for Architect's and Construction Manager's administrative procedures necessary for certification of Substantial Completion.
 - 7. Punch List and Final Completion: Include not more than 30 days for completion of punch list items and final completion.
- D. Constraints: Include constraints and work restrictions indicated in the Contract Documents and as follows in schedule, and show how the sequence of the Work is affected.
 - 1. Owner-Furnished Products: Include a separate activity for each product. Include delivery date indicated in Section 011000 "Summary." Delivery dates indicated stipulate the earliest possible delivery date.
 - 2. Work Restrictions: Show the effect of the following items on the schedule:
 - a. Coordination with existing construction.
 - b. Limitations of continued occupancies.
 - c. Uninterruptible services.
 - d. Partial occupancy before Substantial Completion.
 - e. Use-of-premises restrictions.
 - f. Provisions for future construction.
 - g. Seasonal variations.
 - h. Environmental control.
- E. Milestones: Include milestones indicated in the Contract Documents in schedule, including, but not limited to, the Notice to Proceed, Substantial Completion, and final completion.

- F. Upcoming Work Summary: Prepare summary report indicating activities scheduled to occur or commence prior to submittal of next schedule update. Summarize the following issues:
 - 1. Unresolved issues.
 - 2. Unanswered Requests for Information.
 - 3. Rejected or unreturned submittals.
 - 4. Notations on returned submittals.
 - 5. Pending modifications affecting the Work and the Contract Time.
- G. Contractor's Construction Schedule Updating: At monthly intervals, update schedule to reflect actual construction progress and activities. Issue schedule one week before each regularly scheduled progress meeting.
 - 1. Revise schedule immediately after each meeting or other activity where revisions have been recognized or made. Issue updated schedule concurrently with the report of each such meeting.
 - 2. Include a report with updated schedule that indicates every change, including, but not limited to, changes in logic, durations, actual starts and finishes, and activity durations.
 - 3. As the Work progresses, indicate final completion percentage for each activity.
- H. Recovery Schedule: When periodic update indicates the Work is 14 or more calendar days behind the current approved schedule, submit a separate recovery schedule indicating means by which Contractor intends to regain compliance with the schedule. Indicate changes to working hours, working days, crew sizes, equipment required to achieve compliance, and date by which recovery will be accomplished.
- I. Distribution: Distribute copies of approved schedule to Architect, Construction Manager, Owner, separate contractors, testing and inspecting agencies, and other parties identified by Contractor with a need-to-know schedule responsibility.
 - 1. Post copies in Project meeting rooms and temporary field offices.
 - 2. When revisions are made, distribute updated schedules to the same parties and post in the same locations. Delete parties from distribution when they have completed their assigned portion of the Work and are no longer involved in performance of construction activities.

1.6 GANTT-CHART SCHEDULE REQUIREMENTS

- A. Gantt-Chart Schedule: Submit a comprehensive, fully developed, horizontal, Gantt-chart-type, Contractor's Construction Schedule within 30 days of date established for the Notice of Award.
- B. Preparation: Indicate each significant construction activity separately. Identify first workday of each week with a continuous vertical line.
 - 1. For construction activities that require three months or longer to complete, indicate an estimated completion percentage in 10 percent increments within time bar.

1.7 CPM SCHEDULE REQUIREMENTS

- A. Prepare network diagrams using AON (activity-on-node) format.
- B. CPM Schedule: Prepare Contractor's Construction Schedule using a time-scaled CPM network analysis diagram for the Work.
 - 1. Develop network diagram in sufficient time to submit CPM schedule so it can be accepted for use no later than 60 days after date established for the Notice of Award.
 - a. Failure to include any work item required for performance of this Contract shall not excuse Contractor from completing all work within applicable completion dates.
 - 2. Conduct educational workshops to train and inform key Project personnel, including subcontractors' personnel, in proper methods of providing data and using CPM schedule information.
 - 3. Establish procedures for monitoring and updating CPM schedule and for reporting progress. Coordinate procedures with progress meeting and payment request dates.
 - 4. Use "one workday" as the unit of time for individual activities. Indicate nonworking days and holidays incorporated into the schedule to coordinate with the Contract Time.
- C. CPM Schedule Preparation: Prepare a list of all activities required to complete the Work. Using the startup network diagram, prepare a skeleton network to identify probable critical paths.
 - 1. Activities: Indicate the estimated time duration, sequence requirements, and relationship of each activity in relation to other activities. Include estimated time frames for the following activities:
 - a. Preparation and processing of submittals.
 - b. Mobilization and demobilization.
 - c. Purchase of materials.
 - d. Delivery.
 - e. Fabrication.
 - f. Utility interruptions.
 - g. Installation.
 - h. Work by Owner that may affect or be affected by Contractor's activities.
 - i. Testing and inspection.
 - j. Commissioning.
 - k. Punch list and final completion.
 - 1. Activities occurring following final completion.
 - 2. Critical Path Activities: Identify critical path activities, including those for interim completion dates. Scheduled start and completion dates shall be consistent with Contract milestone dates.
 - 3. Processing: Process data to produce output data on a computer-drawn, time-scaled network. Revise data, reorganize activity sequences, and reproduce as often as necessary to produce the CPM schedule within the limitations of the Contract Time.
 - 4. Format: Mark the critical path. Locate the critical path near center of network; locate paths with most float near the edges.

- a. Subnetworks on separate sheets are permissible for activities clearly off the critical path.
- D. Contract Modifications: For each proposed contract modification and concurrent with its submission, prepare a time-impact analysis using a network fragment to demonstrate the effect of the proposed change on the overall Project schedule.
- E. Initial Issue of Schedule: Prepare initial network diagram from a sorted activity list indicating straight "early start-total float." Identify critical activities. Prepare tabulated reports showing the following:
 - 1. Contractor or subcontractor and the Work or activity.
 - 2. Description of activity.
 - 3. Main events of activity.
 - 4. Immediately preceding and succeeding activities.
 - 5. Early and late start dates.
 - 6. Early and late finish dates.
 - 7. Activity duration in workdays.
 - 8. Total float or slack time.
 - 9. Average size of workforce.
 - 10. Dollar value of activity (coordinated with the schedule of values).
- F. Schedule Updating: Concurrent with making revisions to schedule, prepare tabulated reports showing the following:
 - 1. Identification of activities that have changed.
 - 2. Changes in early and late start dates.
 - 3. Changes in early and late finish dates.
 - 4. Changes in activity durations in workdays.
 - 5. Changes in the critical path.
 - 6. Changes in total float or slack time.
 - 7. Changes in the Contract Time.

1.8 REPORTS

- A. Daily Construction Reports: Through the Construction Manager's web-based project management software, input a daily construction report recording the following information concerning events at Project site:
 - 1. List of subcontractors at Project site.
 - 2. List of separate contractors at Project site.
 - 3. Approximate count of personnel at Project site.
 - 4. Equipment at Project site.
 - 5. Material deliveries.
 - 6. High and low temperatures and general weather conditions, including presence of rain or snow.
 - 7. Testing and inspection.
 - 8. Accidents.
 - 9. Meetings and significant decisions.

- 10. Stoppages, delays, shortages, and losses.
- 11. Meter readings and similar recordings.
- 12. Emergency procedures.
- 13. Orders and requests of authorities having jurisdiction.
- 14. Change Orders received and implemented.
- 15. Construction Change Directives received and implemented.
- 16. Services connected and disconnected.
- 17. Equipment or system tests and startups.
- 18. Partial completions and occupancies.
- 19. Substantial Completions authorized.
- B. Site Condition Reports: Immediately on discovery of a difference between site conditions and the Contract Documents, prepare and submit a detailed report. Submit with a Request for Information. Include a detailed description of the differing conditions, together with recommendations for changing the Contract Documents.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 013200

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SECTION 013233 - PHOTOGRAPHIC DOCUMENTATION

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes administrative and procedural requirements for the following:
 - 1. Preconstruction photographs.
 - 2. Concealed Work photographs.
 - 3. Periodic construction photographs.
 - 4. Final completion construction photographs.

B. Related Requirements:

- 1. Section 017700 "Closeout Procedures" for submitting photographic documentation as Project Record Documents at Project closeout.
- 2. Section 024119 "Selective Demolition" for photographic documentation before selective demolition operations commence.

1.2 INFORMATIONAL SUBMITTALS

- A. Key Plan: Submit key plan of Project site and building with notation of vantage points marked for location and direction of each photograph. Indicate elevation or story of construction. Include same information as corresponding photographic documentation.
- B. Digital Photographs: Submit image files within three days of taking photographs.
 - 1. Submit photos by uploading to web-based Project management software site. Include copy of key plan indicating each photograph's location and direction.
 - 2. Identification: Provide the following information with each image description in webbased Project management software site:
 - a. Name of Project.
 - b. Name and contact information for photographer.
 - c. Name of Architect and Construction Manager.
 - d. Name of Contractor.
 - e. Date photograph was taken.
 - f. Description of location, vantage point, and direction.
 - g. Unique sequential identifier keyed to accompanying key plan.

1.3 OUALITY ASSURANCE

A. Photographer Qualifications: An individual who has been regularly engaged as a photographer of construction projects for not less than three years.

1.4 FORMATS AND MEDIA

- A. Digital Photographs: Provide color images in JPG format, produced by a digital camera with minimum sensor size of 12 megapixels, and at an image resolution of not less than 3200 by 2400 pixels. Use flash in low light levels or backlit conditions.
- B. Digital Images: Submit digital media as originally recorded in the digital camera, without alteration, manipulation, editing, or modifications using image-editing software.
- C. Metadata: Record accurate date and timefrom camera.
- D. File Names: Name media files with date, Contract Number, Project area and sequential numbering suffix.

1.5 CONSTRUCTION PHOTOGRAPHS

- A. Photographer: Engage a photographer to take construction photographs.
- B. General: Take photographs with maximum depth of field and in focus.
 - 1. Maintain key plan with each set of construction photographs that identifies each photographic location.
- C. Preconstruction Photographs: Before commencement of the Work, take photographs of Project site and surrounding properties, including existing items to remain during construction, from different vantage points, as directed by Architect and Construction Manager.
 - 1. Flag construction limits before taking construction photographs.
 - 2. Take photographs to show existing conditions adjacent to property before starting the Work.
 - 3. Take photographs of existing buildings either on or adjoining property to accurately record physical conditions at start of construction.
 - 4. Take additional photographs as required to record settlement or cracking of adjacent structures, pavements, and improvements.
- D. Concealed Work Photographs: Before proceeding with installing work that will conceal other work, take photographs sufficient in number, with annotated descriptions, to record nature and location of concealed Work, including, but not limited to, the following:
 - 1. Underground utilities.
 - 2. Underslab services.
 - 3. Piping.
 - 4. Electrical conduit.
- E. Periodic Construction Photographs: Take 50 photographs weekly. Select vantage points to show status of construction and progress since last photographs were taken.

F. Final Completion Construction Photographs: Take 100 photographs after date of Substantial Completion for submission as Project Record Documents. Architect and Construction Manager will inform photographer of desired vantage points.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 013233

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SECTION 013300 - SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

- 1. Submittal schedule requirements.
- 2. Administrative and procedural requirements for submittals.

1.2 DEFINITIONS

- A. Action Submittals: Written and graphic information and physical samples that require Architect's and Construction Manager's responsive action. Action submittals are those submittals indicated in individual Specification Sections as "action submittals."
- B. Informational Submittals: Written and graphic information and physical samples that do not require Architect's and Construction Manager's responsive action. Submittals may be rejected for not complying with requirements. Informational submittals are those submittals indicated in individual Specification Sections as "informational submittals."

1.3 SUBMITTAL SCHEDULE

A. Submittal Schedule: Submit, as an action submittal, a list of submittals, arranged in chronological order by dates required by construction schedule. Include time required for review, ordering, manufacturing, fabrication, and delivery when establishing dates. Include additional time required for making corrections or revisions to submittals noted by Architect and Construction Manager and additional time for handling and reviewing submittals required by those corrections.

1.4 SUBMITTAL FORMATS

- A. Submittal Information: Include the following information in each submittal:
 - 1. Project name.
 - 2. Date.
 - 3. Name of Architect.
 - 4. Name of Construction Manager.
 - 5. Name of Contractor.
 - 6. Name of firm or entity that prepared submittal.
 - 7. Names of subcontractor, manufacturer, and supplier.
 - 8. Unique submittal number, including revision identifier. Include Specification Section number with sequential alphanumeric identifier; and alphanumeric suffix for resubmittals.
 - 9. Category and type of submittal.
 - 10. Submittal purpose and description.

- 11. Number and title of Specification Section, with paragraph number and generic name for each of multiple items.
- 12. Drawing number and detail references, as appropriate.
- 13. Indication of full or partial submittal.
- 14. Location(s) where product is to be installed, as appropriate.
- 15. Other necessary identification.
- 16. Remarks.
- 17. Signature of transmitter.
- B. Options: Identify options requiring selection by Architect.
- C. Deviations and Additional Information: On each submittal, clearly indicate deviations from requirements in the Contract Documents, including minor variations and limitations; include relevant additional information and revisions, other than those requested by Architect and Construction Manager on previous submittals. Indicate by highlighting on each submittal or noting on attached separate sheet.

D. Physical Submittals:

- 1. Only submit in this format if utilization of web-based Project Management Software is infeasible.
- 2. Place a permanent label or title block on each submittal item for identification; include name of firm or entity that prepared submittal.
- 3. Provide a space approximately 6 by 8 inches (150 by 200 mm) on label or beside title block to record Contractor's review and approval markings and action taken by Architect and Construction Manager.
- 4. Action Submittals: Submit four paper copies of each submittal unless otherwise indicated. Architect, through Construction Manager, will return two copies.
- 5. Informational Submittals: Submit two paper copies of each submittal unless otherwise indicated. Architect and Construction Manager will not return copies.
- 6. Transmittal for Submittals: Assemble each submittal individually and appropriately for transmittal and handling. Transmit each submittal using facsimile of sample form included in Project Manual transmittal form.
- 7. For tracking, submit a cover sheet with photo of the physical submittal as a PDF utilizing the web-based Project Management Software.
- E. Submittals for Utilizing Web-Based Project Management Software: Prepare submittals as PDF files, or other format indicated by Project management software.

1.5 SUBMITTAL PROCEDURES

- A. Prepare and submit submittals required by individual Specification Sections. Types of submittals are indicated in individual Specification Sections.
 - 1.
 - 2. Web-Based Project Management Software: Prepare submittals in PDF form, and upload to web-based Project management software website. Enter required data in web-based software site to fully identify submittal.
 - 3. Physical: Prepare submittals in physical form, and deliver to Construction Manager.

- B. Coordination: Coordinate preparation and processing of submittals with performance of construction activities.
 - 1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
 - 2. Submit all submittal items required for each Specification Section concurrently unless partial submittals for portions of the Work are indicated on approved submittal schedule.
 - 3. Submit action submittals and informational submittals required by the same Specification Section as separate packages under separate transmittals.
- C. Processing Time: Allow time for submittal review, including time for resubmittals, as follows. Time for review shall commence on Architect's receipt of submittal from Construction Manager. No extension of the Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing, including resubmittals.
 - 1. Initial Review: Allow 15 days for initial review of each submittal. Allow additional time if coordination with subsequent submittals is required. Construction Manager will advise Contractor when a submittal being processed must be delayed for coordination.
 - 2. Resubmittal Review: Allow 15 days for review of each resubmittal.
- D. Resubmittals: Make resubmittals in same form and number of copies as initial submittal.
- E. Distribution: Furnish copies of final submittals to manufacturers, subcontractors, suppliers, fabricators, installers, authorities having jurisdiction, and others as necessary for performance of construction activities. Show distribution on transmittal forms.
- F. Use for Construction: Retain complete copies of submittals on Project site. Use only final action submittals that are marked with approval notation from Architect's and Construction Manager's action stamp.

1.6 SUBMITTAL REQUIREMENTS

- A. Product Data: Collect information into a single submittal for each element of construction and type of product or equipment.
 - 1. If information must be specially prepared for submittal because standard published data are unsuitable for use, submit as Shop Drawings, not as Product Data.
 - 2. Mark each copy of each submittal to show which products and options are applicable.
 - 3. Include the following information, as applicable:
 - a. Manufacturer's catalog cuts.
 - b. Manufacturer's product specifications.
 - c. Standard color charts.
 - d. Statement of compliance with specified referenced standards.
 - e. Testing by recognized testing agency.
 - f. Application of testing agency labels and seals.
 - g. Notation of coordination requirements.
 - h. Availability and delivery time information.

- 4. For equipment, include the following in addition to the above, as applicable:
 - a. Wiring diagrams that show factory-installed wiring.
 - b. Printed performance curves.
 - c. Operational range diagrams.
 - d. Clearances required to other construction, if not indicated on accompanying Shop Drawings.
- 5. Submit Product Data before Shop Drawings, and before or concurrent with Samples.
- B. Shop Drawings: Prepare Project-specific information, drawn accurately to scale. Do not base Shop Drawings on reproductions of the Contract Documents or standard printed data.
 - 1. Preparation: Fully illustrate requirements in the Contract Documents. Include the following information, as applicable:
 - a. Identification of products.
 - b. Schedules.
 - c. Compliance with specified standards.
 - d. Notation of coordination requirements.
 - e. Notation of dimensions established by field measurement.
 - f. Relationship and attachment to adjoining construction clearly indicated.
 - g. Seal and signature of professional engineer if specified.
 - 2. PDF Sheet Size: Except for templates, patterns, and similar full-size Drawings, submit Shop Drawings on sheets at least 8-1/2 by 11 inches (215 by 280 mm), but no larger than 30 by 42 inches (750 by 1067 mm).
- C. Samples: Submit Samples for review of kind, color, pattern, and texture for a check of these characteristics with other materials.
 - 1. Transmit Samples that contain multiple, related components such as accessories together in one submittal package.
 - 2. Identification: Permanently attach label on unexposed side of Samples that includes the following:
 - a. Project name and submittal number.
 - b. Generic description of Sample.
 - c. Product name and name of manufacturer.
 - d. Sample source.
 - e. Number and title of applicable Specification Section.
 - f. Specification paragraph number and generic name of each item.
 - 3. Web-Based Project Management Software: Prepare submittals in PDF form, and upload to web-based Project software website. Enter required data in web-based software site to fully identify submittal.
 - 4. Paper Transmittal: Include paper transmittal including complete submittal information indicated

- 5. Disposition: Maintain sets of approved Samples at Project site, available for quality-control comparisons throughout the course of construction activity. Sample sets may be used to determine final acceptance of construction associated with each set.
 - a. Samples that may be incorporated into the Work are indicated in individual Specification Sections. Such Samples must be in an undamaged condition at time of use.
 - b. Samples not incorporated into the Work, or otherwise designated as Owner's property, are the property of Contractor.
- 6. Samples for Initial Selection: Submit manufacturer's color charts consisting of units or sections of units showing the full range of colors, textures, and patterns available.
 - a. Number of Samples: Submit one full set(s) of available choices where color, pattern, texture, or similar characteristics are required to be selected from manufacturer's product line. Architect, through Construction Manager, will return submittal with options selected.
- 7. Samples for Verification: Submit full-size units or Samples of size indicated, prepared from same material to be used for the Work, cured and finished in manner specified, and physically identical with material or product proposed for use, and that show full range of color and texture variations expected. Samples include, but are not limited to, the following: partial sections of manufactured or fabricated components; small cuts or containers of materials; complete units of repetitively used materials; swatches showing color, texture, and pattern; color range sets; and components used for independent testing and inspection.
 - a. Number of Samples: Submit three sets of Samples. Architect and Construction Manager will retain two Sample sets; remainder will be returned. Mark up and retain one returned Sample set as a project record Sample.
 - 1) Submit a single Sample where assembly details, workmanship, fabrication techniques, connections, operation, and other similar characteristics are to be demonstrated.
 - 2) If variation in color, pattern, texture, or other characteristic is inherent in material or product represented by a Sample, submit at least three sets of paired units that show approximate limits of variations.
- D. Product Schedule: As required in individual Specification Sections, prepare a written summary indicating types of products required for the Work and their intended location. Include the following information in tabular form:
- E. Qualification Data: Prepare written information that demonstrates capabilities and experience of firm or person. Include lists of completed projects with project names and addresses, contact information of architects and owners, and other information specified.
- F. Design Data: Prepare and submit written and graphic information indicating compliance with indicated performance and design criteria in individual Specification Sections. Include list of assumptions and summary of loads. Include load diagrams if applicable. Provide name and version of software, if any, used for calculations. Number each page of submittal.

G. Certificates:

- 1. Certificates and Certifications Submittals: Submit a statement that includes signature of entity responsible for preparing certification. Certificates and certifications shall be signed by an officer or other individual authorized to sign documents on behalf of that entity. Provide a notarized signature where indicated.
- 2. Installer Certificates: Submit written statements on manufacturer's letterhead certifying that Installer complies with requirements in the Contract Documents and, where required, is authorized by manufacturer for this specific Project.
- 3. Manufacturer Certificates: Submit written statements on manufacturer's letterhead certifying that manufacturer complies with requirements in the Contract Documents. Include evidence of manufacturing experience where required.
- 4. Material Certificates: Submit written statements on manufacturer's letterhead certifying that material complies with requirements in the Contract Documents.
- 5. Product Certificates: Submit written statements on manufacturer's letterhead certifying that product complies with requirements in the Contract Documents.
- 6. Welding Certificates: Prepare written certification that welding procedures and personnel comply with requirements in the Contract Documents. Submit record of Welding Procedure Specification and Procedure Qualification Record on AWS forms. Include names of firms and personnel certified.

H. Test and Research Reports:

- 1. Compatibility Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of compatibility tests performed before installation of product. Include written recommendations for substrate preparation and primers required.
- 2. Field Test Reports: Submit written reports indicating and interpreting results of field tests performed either during installation of product or after product is installed in its final location, for compliance with requirements in the Contract Documents.
- 3. Material Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting test results of material for compliance with requirements in the Contract Documents.
- 4. Preconstruction Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of tests performed before installation of product, for compliance with performance requirements in the Contract Documents.
- 5. Product Test Reports: Submit written reports indicating that current product produced by manufacturer complies with requirements in the Contract Documents. Base reports on evaluation of tests performed by manufacturer and witnessed by a qualified testing agency, or on comprehensive tests performed by a qualified testing agency.
- 6. Research Reports: Submit written evidence, from a model code organization acceptable to authorities having jurisdiction, that product complies with building code in effect for Project. Include the following information:
 - a. Name of evaluation organization.
 - b. Date of evaluation.
 - c. Time period when report is in effect.
 - d. Product and manufacturers' names.
 - e. Description of product.

- f. Test procedures and results.
- g. Limitations of use.

1.7 DELEGATED-DESIGN SERVICES

- A. Performance and Design Criteria: 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.
 - 1. If criteria indicated are insufficient to perform services or certification required, submit a written request for additional information to Architect.
- B. Delegated-Design Services Certification: In addition to Shop Drawings, Product Data, and other required submittals, submit digitally signed PDF file and three paper 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.
 - 1. 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.

1.8 CONTRACTOR'S REVIEW

- A. Action Submittals and Informational Submittals: Review each submittal and check for coordination with other Work of the Contract and for compliance with the Contract Documents. Note corrections and field dimensions. Mark with approval stamp before submitting to Architect and Construction Manager.
- B. Contractor's Approval: Indicate Contractor's approval for each submittal with indication in web-based Project management software. Include name of reviewer, date of Contractor's approval, and statement certifying that submittal has been reviewed, checked, and approved for compliance with the Contract Documents.
 - 1. Architect and Construction Manager will not review submittals received from Contractor that do not have Contractor's review and approval.

1.9 ARCHITECT'S AND CONSTRUCTION MANAGER'S REVIEW

- A. Action Submittals: Architect and Construction Manager will review each submittal, indicate corrections or revisions required, and return it.
 - 1. Physical Submittals, if necessary: Architect and Construction Manager will stamp each submittal with an action stamp and will mark stamp appropriately to indicate action.
 - 2. Submittals by Web-Based Project Management Software: Architect and Construction Manager will indicate, on Project management software website, the appropriate action.

- a. Actions taken by indication on Project management software website have the following meanings:
 - 1) No Exception: Architect or Construction Manager has no comments regarding the submittal and it is approved.
 - 2) Furnish As Corrected: Architect or Construction Manager has noted deviations from the specified products but does not require further review if the items are addressed by the Contractor.
 - 3) Revise and Resubmit: Architect or Construction Manager has noted deviations from the specified products and does require further information, detail, or engineering to determine approval. Contractor is to correct the submittal, or portion of the submittal as indicated, and return to the Construction Manager for review.
 - 4) Rejected: The submittal does not meet the requirements as set forth in this section. Notes on deviation may or may not be provided by the Architect and Construction Manager. Contractor is to correct the submittal and resubmit for review.
- B. Informational Submittals: Architect and Construction Manager will review each submittal and will not return it or will return it if it does not comply with requirements. Architect and Construction Manager will forward each submittal to appropriate party.
- C. Partial submittals prepared for a portion of the Work will be reviewed when use of partial submittals has received prior approval from Architect and Construction Manager.
- D. Incomplete submittals are unacceptable, will be considered nonresponsive, and will be returned for resubmittal without review.
- E. Architect and Construction Manager will return without review submittals received from sources other than Contractor.
- F. Submittals not required by the Contract Documents will be returned by Architect without action.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 013300

SECTION 013516 - ALTERATION PROJECT PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes special procedures for alteration work.

1.2 DEFINITIONS

- A. Alteration Work: This term includes remodeling, renovation, repair, and maintenance work performed within existing spaces or on existing surfaces as part of the Project.
- B. Consolidate: To strengthen loose or deteriorated materials in place.
- C. Design Reference Sample: A sample that represents the Architect's prebid selection of work to be matched; it may be existing work or work specially produced for the Project.
- D. Dismantle: To remove by disassembling or detaching an item from a surface, using gentle methods and equipment to prevent damage to the item and surfaces; disposing of items unless indicated to be salvaged or reinstalled.
- E. Match: To blend with adjacent construction and manifest no apparent difference in material type, species, cut, form, detail, color, grain, texture, or finish; as approved by Architect.
- F. Refinish: To remove existing finishes to base material and apply new finish to match original, or as otherwise indicated.
- G. Repair: To correct damage and defects, retaining existing materials, features, and finishes. This includes patching, piecing-in, splicing, consolidating, or otherwise reinforcing or upgrading materials.
- H. Replace: To remove, duplicate, and reinstall entire item with new material. The original item is the pattern for creating duplicates unless otherwise indicated.
- I. Replicate: To reproduce in exact detail, materials, and finish unless otherwise indicated.
- J. Reproduce: To fabricate a new item, accurate in detail to the original, and from either the same or a similar material as the original, unless otherwise indicated.
- K. Retain: To keep existing items that are not to be removed or dismantled.
- L. Strip: To remove existing finish down to base material unless otherwise indicated.

1.3 PROJECT MEETINGS FOR ALTERATION WORK

- A. Preliminary Conference for Alteration Work: Before starting alteration work, Construction Manager will conduct conference at Project site.
 - 1. Attendees: In addition to representatives of Owner, Construction Manager, Architect, and Contractor, testing service representative, and chemical-cleaner manufacturer(s) shall be represented at the meeting.
 - 2. Agenda: Discuss items of significance that could affect progress of alteration work, including review of the following:
 - a. Fire-prevention plan.
 - b. Governing regulations.
 - c. Areas where existing construction is to remain and the required protection.
 - d. Hauling routes.
 - e. Sequence of alteration work operations.
 - f. Storage, protection, and accounting for salvaged and specially fabricated items.
 - g. Existing conditions, staging, and structural loading limitations of areas where materials are stored.
 - 3. Reporting: Construction Manager will record conference results and distribute copies to everyone in attendance and to others affected by decisions or actions resulting from conference.
- B. Coordination Meetings: Conduct coordination meetings specifically for alteration work at weekly intervals. Coordination meetings are in addition to specific meetings held for other purposes, such as progress meetings and preinstallation conferences.
 - 1. Agenda: Review and correct or approve minutes of previous coordination meeting. Review other items of significance that could affect progress of alteration work. Include topics for discussion as appropriate to status of Project.
 - 2. Reporting: Record meeting results and distribute copies to everyone in attendance and to others affected by decisions or actions resulting from each meeting.

1.4 MATERIALS OWNERSHIP

A. Historic items, relics, and similar objects including, but not limited to, cornerstones and their contents, commemorative plaques and tablets, antiques, and other items of interest or value to Owner that may be encountered or uncovered during the Work, regardless of whether they were previously documented, remain Owner's property.

1.5 INFORMATIONAL SUBMITTALS

- A. Alteration Work Program: Submit 30 days before work begins.
- B. Fire-Prevention Plan: Submit 30 days before work begins.

1.6 QUALITY ASSURANCE

- A. Title X Requirement: Each firm conducting activities that disturb painted surfaces shall be a "Lead-Safe Certified Firm" according to 40 CFR 745, Subpart E, and use only workers that are trained in lead-safe work practices.
- B. Alteration Work Program: Prepare a written plan for alteration work for whole Project, including each phase or process and protection of surrounding materials during operations. Show compliance with indicated methods and procedures specified in this and other Sections. Coordinate this whole-Project alteration work program with specific requirements of programs required in other alteration work Sections.
 - 1. Dust and Noise Control: Include locations of proposed temporary dust- and noise-control partitions and means of egress from occupied areas coordinated with continuing on-site operations and other known work in progress.
 - 2. Debris Hauling: Include plans clearly marked to show debris hauling routes, turning radii, and locations and details of temporary protective barriers.
- C. Fire-Prevention Plan: Prepare a written plan for preventing fires during the Work, including placement of fire extinguishers, fire blankets, rag buckets, and other fire-control devices during each phase or process. Coordinate plan with Owner's fire-protection equipment and requirements. Include fire-watch personnel's training, duties, and authority to enforce fire safety.
- D. Safety and Health Standard: Comply with ANSI/ASSE A10.6.

1.7 STORAGE AND HANDLING OF SALVAGED MATERIALS

A. Salvaged Materials:

- 1. Clean loose dirt and debris from salvaged items unless more extensive cleaning is indicated
- 2. Pack or crate items after cleaning; cushion against damage during handling. Label contents of containers.
- 3. Store items in a secure area until delivery to Owner.
- 4. Transport items to Owner's storage area designated by Owner.
- 5. Protect items from damage during transport and storage.
- B. Existing Materials to Remain: Protect construction indicated to remain against damage and soiling from construction work. Where permitted by Architect, items may be dismantled and taken to a suitable, protected storage location during construction work and reinstalled in their original locations after alteration and other construction work in the vicinity is complete.
- C. Storage: Catalog and store items within a weathertight enclosure where they are protected from moisture, weather, condensation, and freezing temperatures.
 - 1. Identify each item for reinstallation with a nonpermanent mark to document its original location. Indicate original locations on plans, elevations, sections, or photographs by annotating the identifying marks.
 - 2. Secure stored materials to protect from theft.

3. Control humidity so that it does not exceed 85 percent. Maintain temperatures 5 deg F (3 deg C) or more above the dew point.

PART 2 - PRODUCTS - (Not Used)

PART 3 - EXECUTION

3.1 PROTECTION

- A. Protect persons, motor vehicles, surrounding surfaces of building, building site, plants, and surrounding buildings from harm resulting from alteration work.
 - 1. Use only proven protection methods, appropriate to each area and surface being protected.
 - 2. Provide temporary barricades, barriers, and directional signage to exclude the public from areas where alteration work is being performed.
 - 3. Erect temporary barriers to form and maintain fire-egress routes.
 - 4. Erect temporary protective covers over walkways and at points of pedestrian and vehicular entrance and exit that must remain in service during alteration work.
 - 5. Contain dust and debris generated by alteration work, and prevent it from reaching the public or adjacent surfaces.
 - 6. Provide shoring, bracing, and supports as necessary. Do not overload structural elements.
 - 7. Protect floors and other surfaces along hauling routes from damage, wear, and staining.
 - 8. Provide supplemental sound-control treatment to isolate demolition work from other areas of the building.

B. Temporary Protection of Materials to Remain:

- 1. Protect existing materials with temporary protections and construction. Do not remove existing materials unless otherwise indicated.
- 2. Do not attach temporary protection to existing surfaces except as indicated as part of the alteration work program.
- C. Comply with each product manufacturer's written instructions for protections and precautions. Protect against adverse effects of products and procedures on people and adjacent materials, components, and vegetation.

D. Utility and Communications Services:

- 1. Notify Owner, Architect, authorities having jurisdiction, and entities owning or controlling wires, conduits, pipes, and other services affected by alteration work before commencing operations.
- 2. Disconnect and cap pipes and services as required by authorities having jurisdiction, as required for alteration work.
- 3. Maintain existing services unless otherwise indicated; keep in service and protect against damage during operations. Provide temporary services during interruptions to existing utilities.

- E. Existing Drains: Prior to the start of work in an area, test drainage system to ensure that it is functioning properly. Notify Architect immediately of inadequate drainage or blockage. Do not begin work in an area until the drainage system is functioning properly.
 - 1. Prevent solids such as adhesive or mortar residue or other debris from entering the drainage system. Clean out drains and drain lines that become sluggish or blocked by sand or other materials resulting from alteration work.
 - 2. Protect drains from pollutants. Block drains or filter out sediments, allowing only clean water to pass.

3.2 PROTECTION FROM FIRE

- A. General: Follow fire-prevention plan and the following:
 - 1. Comply with NFPA 241 requirements unless otherwise indicated.
 - 2. Remove and keep area free of combustibles, including rubbish, paper, waste, and chemicals, unless necessary for the immediate work.
 - a. If combustible material cannot be removed, provide fire blankets to cover such materials.
- B. Heat-Generating Equipment and Combustible Materials: Comply with the following procedures while performing work with heat-generating equipment or combustible materials, including welding, torch-cutting, soldering, brazing, removing paint with heat, or other operations where open flames or implements using high heat or combustible solvents and chemicals are anticipated:
 - 1. Obtain Owner's approval for operations involving use of open-flame or welding or other high-heat equipment. Notify Owner at least 72 hours before each occurrence, indicating location of such work.
 - 2. As far as practicable, restrict heat-generating equipment to shop areas or outside the building.
 - 3. Do not perform work with heat-generating equipment in or near rooms or in areas where flammable liquids or explosive vapors are present or thought to be present. Use a combustible gas indicator test to ensure that the area is safe.
 - 4. Use fireproof baffles to prevent flames, sparks, hot gases, or other high-temperature material from reaching surrounding combustible material.
 - 5. Prevent the spread of sparks and particles of hot metal through open windows, doors, holes, and cracks in floors, walls, ceilings, roofs, and other openings.
 - 6. Fire Watch: Before working with heat-generating equipment or combustible materials, station personnel to serve as a fire watch at each location where such work is performed. Fire-watch personnel shall have the authority to enforce fire safety. Station fire watch according to NFPA 51B, NFPA 241, and as follows:
 - a. Train each fire watch in the proper operation of fire-control equipment and alarms.
 - b. Prohibit fire-watch personnel from other work that would be a distraction from firewatch duties.
 - c. Cease work with heat-generating equipment whenever fire-watch personnel are not present.

- d. Have fire-watch personnel perform final fire-safety inspection each day beginning no sooner than 30 minutes after conclusion of work in each area to detect hidden or smoldering fires and to ensure that proper fire prevention is maintained.
- e. Maintain fire-watch personnel at each area of Project site until two hours after conclusion of daily work.
- C. Fire-Control Devices: Provide and maintain fire extinguishers, fire blankets, and rag buckets for disposal of rags with combustible liquids. Maintain each as suitable for the type of fire risk in each work area. Ensure that nearby personnel and the fire-watch personnel are trained in fireextinguisher and blanket use.
- D. Sprinklers: Where sprinkler protection exists and is functional, maintain it without interruption while operations are being performed. If operations are performed close to sprinklers, shield them temporarily with guards.
 - 1. Remove temporary guards at the end of work shifts, whenever operations are paused, and when nearby work is complete.

3.3 PROTECTION DURING APPLICATION OF CHEMICALS

- A. Protect motor vehicles, surrounding surfaces of building, building site, plants, and surrounding buildings from harm or spillage resulting from applications of chemicals and adhesives.
- B. Cover adjacent surfaces with protective materials that are proven to resist chemicals selected for Project unless chemicals being used will not damage adjacent surfaces as indicated in alteration work program. Use covering materials and masking agents that are waterproof and UV resistant and that will not stain or leave residue on surfaces to which they are applied. Apply protective materials according to manufacturer's written instructions. Do not apply liquid masking agents or adhesives to painted or porous surfaces. When no longer needed, promptly remove protective materials.
- C. Do not apply chemicals during winds of sufficient force to spread them to unprotected surfaces.
- D. Neutralize alkaline and acid wastes and legally dispose of off Owner's property.
- E. Collect and dispose of runoff from chemical operations by legal means and in a manner that prevents soil contamination, soil erosion, undermining of paving and foundations, damage to landscaping, or water penetration into building interior.

3.4 GENERAL ALTERATION WORK

- A. Record existing work before each procedure (preconstruction), and record progress during the work. Use digital preconstruction documentation photographs or video recordings. Comply with requirements in Section 013233 "Photographic Documentation."
- B. Perform surveys of Project site as the Work progresses to detect hazards resulting from alterations.

- C. Notify Architect of visible changes in the integrity of material or components whether from environmental causes including biological attack, UV degradation, freezing, or thawing or from structural defects including cracks, movement, or distortion.
 - 1. Do not proceed with the work in question until directed by Architect.

END OF SECTION 013516

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SECTION 013529 – HEALTH AND SAFETY

PART 1 - GENERAL

1.1 SCOPE OF WORK

A. This section describes the minimum requirements for Health and Safety related to environmental exposure only. Other Health and Safety requirements are governed by the General Contract Documents. Where this specification and the General Contract Documents conflict, the most restrictive requirements shall be followed. Site activities may involve worker exposure to potentially hazardous or toxic materials. Accordingly, the Contractor shall develop and implement Health and Safety criteria and practices sufficient to protect onsite personnel, the public, and the environment from physical and chemical hazards particular to this site. All other contractors involved in such activities will be required to either adopt and adhere to the Contractor's Health and Safety Plan (HASP) or develop and obtain the Owner's Representative approval for their own HASP in accordance with this specification.

1.2 APPLICABLE REFERENCES

- A. The publications listed below form a part of this Specification to the extent referenced. The publications are referred to by basic designation only and shall be the latest published versions.
 - 1. Occupational Safety and Health Administration (OSHA) Standards and Regulations, Code of Regulations (CFR):
 - a. 29 CFR 1910 OSHA Standards; General Industry
 - b. 29 CFR 1910.120 OSHA Standards; Hazardous Waste Operations and Emergency Response
 - c. 29 CFR 1910.1200 OSHA Standards; Hazardous Communication
 - d. 29 CFR 1926 OSHA Standards; Construction Industry
 - e. 49 CFR 178 Shipping Container Specifications (Latest Edition)
 - 2. New York State Department of Environmental Conservation
 - a. NYSDEC Title 6 NYCRR Part 360, 364 and 370 Regulations
 - 3. Department of Transportation (DOT) Standards and Regulations, CFR
 - a. 49 CFR 171 Hazardous Materials Regulations; General Information, Regulations, and Definitions
 - b. 49 CFR 172 Hazardous Materials Tables and Military Standards
 - 4. U.S. Environmental Protection Agency (EPA)
 - a. EPA 9285.1-03- Standard Operating Safety Guides (Office of Emergency and Remedial Response) (Latest Edition)

- b. NESHAP, 40CFR61- National Emission Standards for Hazardous Air Pollutants
- c. EPA Order 1440.2 Health and Safety Requirements for Employees Engaged in Field Activities, July 12, 1981
- 5. National Institutes for Safety and Health (NIOSH)
 - a. NIOSH 85-115 Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities (NIOSH, OSHA, USCG, and EPA) (Latest Edition)

6. Other Publications

- a. Threshold Limit Values for Chemical Substances, Physical Agents, Biological Exposure Indices and Total Particulates, ACGIH
- b. Guide to Occupational Exposure Values, ACGIH

NOTE: Where conflicts arise between requirements of the above-listed regulatory requirements, the most restrictive of the requirements shall be followed.

1.3 SITE HEALTH AND SAFETY PLAN

- A. The Contractor shall employ the services of a Certified Industrial Hygienist (CIH) to develop a Site Health and Safety Plan. The plan must be reviewed, approved, signed and sealed by a CIH. The plan shall include, but not be limited to, the information in this specification. This specification is intended to be a guide to aid the Contractors Certified CIH in the preparation of the Site Health and Safety Plan. Additional Health and Safety requirements not specifically outlined in the specification may be required. The Contractor is solely responsible for the development and implementation of Health and Safety procedures protective of all personnel on site.
- B. Practices and Procedures: The specified site-specific Health and Safety practices, procedures, and equipment required to protect employees involved in site activities shall be followed by all Contractor and Subcontractor personnel during the course of this project.
- C. Personnel Qualifications (Project Health and Safety Officer): The Contractor shall identify an individual who shall serve as the Project Health and Safety Officer for this project. The responsibilities of the Contractor's Project Health and Safety Officer (HSO) are to develop and coordinate the Site Health and Safety Program and provide necessary direction and supervision to the Contractor's Site HSO. The Project HSO will identify the most direct route to the closest hospital. The Project HSO will conduct the initial site-specific training session (Onsite Health and Safety Briefing) and will review and confirm changes in personal protection requirements when site conditions are found to be different than those originally anticipated. For small or short-term projects, the Project HSO may also serve as the site HSO.
- D. The Contractor's Project HSO will be involved in all discussions on Health and Safety matters with the Erie Canal Harbor Development Corporation (ECHDC), New York State Department of Environmental Conservation (NYSDEC), Occupational Safety and Health Administration (OSHA), local health authorities, or other governmental or labor representatives. In addition, this individual will provide the Contractor's Site HSO with details concerning the task-specific Health and Safety considerations.

- E. Personnel Qualifications (Site Health and Safety Officer) The Contractor shall identify an individual who will serve as Site Health and Safety Officer. The responsibilities of the Site HSO are as follows:
 - 1. Implement this HASP onsite
 - 2. Enforce day-to-day Health and Safety protocols in effect onsite
 - 3. Require that all personnel entering the site understand the provisions of this HASP
 - 4. Conduct periodic training sessions in proper use and maintenance of personal protective equipment and safety practices
 - 5. Conduct periodic emergency response drills
 - 6. Conduct daily Health and Safety meetings each morning
 - 7. Direct and advise onsite personnel, visitors, and subcontractor(s) HSO(s) on all aspects, especially changes, related to Health and Safety requirements at the site
 - 8. Conduct or supervise necessary Health and Safety monitoring
 - 9. Administer Community Air Monitoring Program (CAMP)
 - 10. Monitor site conditions and determine all necessary changes in levels of personal protection and, if warranted, execute work stoppages
 - 11. Report changes in site conditions and changes in personal protection equipment requirements to the Project HSO
 - 12. Prepare accident/incident reports
- F. Personnel Qualifications (CIH): The Contractor shall identify an individual who shall serve as the CIH for this project. This individual shall:
 - 1. Have a minimum of 3 years' experience in the hazardous waste field.
 - 2. Be familiar with all applicable OSHA, EPA, and NYSDEC standards.
 - 3. Be certified by the American Board of Industrial Hygienists.
- G. Health and Safety Plan Organization: The Contractor's Health and Safety Plan must provide all required information using the general outline provided below.

Required Health and Safety Plan Outline

- 1. Section 1.0 General
 - a. Brief site history and description (include past activities, site locations, etc.)
 - b. List and description of activities to be performed at site (a table format is acceptable)
- 2. Section 2.0 Hazard Analysis
 - a. Chemical Hazards
 - b. Identify suspected or known chemicals for the site
 - c. Identify chemical hazards for activities to be performed (e.g., skin contact, carcinogen, etc.)
 - d. Statement regarding level of chemical hazard in relation to work to be performed (e.g., low, moderate, high). Include a table listing chemicals of concern and concentrations at which they have been detected at the site.
 - e. Brief discussion of all monitoring to be performed by site HSO.
 - f. Table of chemical hazard information listing chemicals of concern, exposure limits, harmful effects, symptoms, sampling media and routes of exposure.

- g. Biological Hazards
- h. Physical and general safety hazards (such as but not limited to) injury from operation of heavy equipment
- i. Heat and Cold exposure
- j. Noise exposure (include discussion of hearing conservation program, when to implement, etc.)
- k. Cuts or injuries from pinch points
- 1. Job hazard analyses (when to be done, who prepares, who reviews, etc.)

3. Section 3.0 - Medical Surveillance

a. Statement regarding company's medical surveillance requirements for this project with reference to corporate safety and health program.

4. Section 4.0 – Training

- a. Listing of potential project applicable OHSA General Industry and Construction Industry Standards.
- b. Procedures that Contractor's HSO will use to determine employees that require general or task specific training.
- c. Controls to assure that appropriately trained personnel are assigned to tasks.
- d. Handling of OSHA compliant training records access and storage.

5. Section 5.0 - Site Controls

- a. Description of general site control requirements for this project. May make reference to corporate safety and health program requirements.
- 6. Section 6.0 Air Monitoring and Sampling (CAMP)
 - a. Personal air sampling (when, how, why this will be done)
 - b. Site perimeter real-time air monitoring (when, how, why this will be done)

7. Section 7.0 - Personal Protective Equipment

a. PPE requirements for this project (include table of tasks, hazards associated with the tasks, level of PPE required and possible PPE upgrade levels

8. Section 8.0 - Emergency Response

a. Emergency response requirements for this project with reference to corporate safety and health program requirements. Include a list of all applicable emergency telephone numbers and a map showing the fastest and best route to the hospital.

9. Section 9.0 - Spill Prevention and Control

a. References to corporate safety and health program requirements and procedures.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 TRAINING REQUIREMENTS

- A. Contaminated soil may be encountered during subsurface activities including, but not limited to, general earth excavation, foundation work and other work requiring removal or disturbance of existing soils. All personnel who will be involved with the potential removal, disturbance or excavation of contaminated soils must have completed appropriate training as required by OSHA's Hazard Communication Standard 29 CFR 1910.1200 most recent revision. In addition, it is the Contractor's responsibility to ensure that any appropriate waste site worker training as required by OSHA's Hazardous Waste Operations and Emergency Response Standard: 1910.120, is completed by the employees utilized on this site.
- B. Additionally, all personnel must receive adequate site-specific training, in the form of an Onsite Health and Safety Briefing given by the Contractor's Project HSO prior to participating in onsite field work, which will involve a review of the site-specific Health and Safety Plan with emphasis on the following:
 - 1. Protection of the adjacent community from dust (CAMP) which may be released during intrusive activities.
 - 2. Attention to health effects and hazards of substances known to be present onsite.
 - 3. Hazards and protection against heat/cold.
 - 4. The need for vigilance in personal protection, and the importance of attention to proper use, fit and care of personal protective equipment.
 - 5. The effectiveness and limitations of personal protective equipment.
 - 6. Prescribed decontamination procedures.
 - 7. Site control, including work zones, access, and security.
 - 8. The proper observance of daily Health and Safety practices, such as the entry and exit of work zones and site, proper hygiene during lunch, break, etc.
 - 9. Recognition in oneself or in others of physical conditions requiring immediate medical attention and application of simple first aid measures.
- C. Health and Safety Meetings will be conducted daily by the Contractor's Site HSO and will cover protective clothing and other equipment to be used that day, potential chemical and physical hazards, emergency procedures, and conditions and activities from the previous day.

3.2 MEDICAL SURVEILLANCE REQUIREMENTS

A. All Contractor personnel who engage in hazardous waste site activities for 30 days or more per year must participate in a Medical Surveillance Program. Any such personnel involved in onsite activities are required to undergo annual medical examinations. The physician must certify whether the individual is fit to conduct work on contaminated waste sites using personal protection, or whether he or she must work within certain restrictions. Any such person exposed to high levels of hazardous substances will be required to undergo a repeat medical exam at or before the conclusion of the project to determine possible health impacts.

- B. Any person suffering a lost-time injury or illness must receive medical approval prior to returning to work onsite. When employment is terminated for any reason, the employee must receive an exit medical examination.
- C. All medical records will be held by the employer for the period of employment plus at least 30 years, in accordance with OSHA regulations on confidentiality and any other applicable regulations and will be made available to OSHA upon request.

3.3 SITE HAZARD EVALUATION

A. Chemical Hazards

- 1. Reports outlining the Health/safety characteristics and exposure limits of contaminants known or suspected at the ECHDC site are available upon request. In addition, Table 3-2 provides a summary list of the potential contaminants than may be encountered on site. The list is intended to be a guide to aid the Contractors Certified CIH in the preparation of the Site Health and Safety Plan. Additional contaminants and/or exposure limits not specifically outline may be required. The Contractor is solely responsible for the development and implementation of Health and Safety procedures protective of all personnel on site as well as the general public. The risk of exposure can be by the dermal or respiratory route, depending on the type of compound and intrusive activity being conducted.
- 2. If any significant changes to the above-mentioned hazards become apparent, information in the HASP will be updated and any changes in PPE will be evaluated.

3.4 SITE CONTROL

A. In order to keep unauthorized personnel from entering the work areas during excavation activities without proper protective equipment, and for good control of overall site safety, the work area must be secured to prevent the public from entering (i.e. fencing, gates etc.).

TABLE 3-2 HAZARD CHARACTERISTICS OF POTENTIAL CONTAMINANTS AT THE ECHDC SITE

Substance	Flammability/Reactivity	Toxicity/Carcinogenicity	Standards
Volatile Organic Compounds	Highly flammable; vapor/ air mixtures are explosive.	May cause irritation to the eyes, skin and respiratory tract.	Standards are Compound specific. No VOC data has been collected in the proposed project area soils. However, total organic vapor readings from soil boring screening were below 5 ppm.
Semi-Volatile Organic Compounds (SVOCs)	Normally flammable liquids with strong irritating odors, strong oxidizers.	May cause respiratory tract irritation and anesthetic effects, they may also produce dermatitis, headaches and nausea.	Standards area Compound specific. PAHs were reported in soil 0.1 mg/m3 for coal tar pitch volatiles (NIOSH REL TWA) 0.2 mg/m³ for benzene soluble fraction (OSHA PEL TWA)
Polychlorinated biphenyls (PCBs)	Nonflammable Liquid or Solid, but exposure in a fire can result in formation of PCB containing soot or dibenzofurans and dioxins., slight fire hazard, Colorless to pale-yellow, viscous liquid or solid (below 50°F) with a mild, hydrocarbon odor	Carcinogenicity, Reproductive Toxicity, Aspiration Hazard. Exposure routes inhalation, skin absorption, ingestion, skin and/or eye contact. Affects skin, liver damage, rash, itching, hair loss, digestive issues, headache, dizziness, impotence, coma and cancer	0.001mg/m³ (NIOSH-TWA) 0.5 mg/m³ skin (OSHA)
Arsenic	Noncombustible, slight explosion hazard when exposed to flame.	Toxic by inhalation, skin absorption, ingestion. Affects liver, kidneys, skin, lungs, and lymphatic system.	0.002 mg/m ³ (15-min. NIOSH REL) 0.010 mg/m ³ (OSHA PEL- TWA)
Barium	Not flammable. Will accelerate the burning of combustible material.	Toxic by ingestion, skin absorption and inhalation of vapors and fumes. Neurological, pulmonary, and renal toxin.	0.5 mg/m³ (NIOSH REL- TWA, OSHA PEL TWA)

Substance	Flammability/Reactivity	Toxicity/Carcinogenicity	Standards
Beryllium	Noncombustible, slight explosion hazard when exposed to flame.	Toxic by inhalation, skin/eye contact irritant. Affects eyes, skin, and respiratory system.	0.0005 mg/m³ (NIOSH REL) 0.002 mg/m³ (OSHA PEL- TWA) 0.005 mg/m³ (OSHA PEL-C 30 - min), with a maximum peak of 0.025 mg/m³ (30- min)
Cadmium	Noncombustible in bulk form, will burn in powder form.	Toxic by inhalation and ingestion. Affects respiratory system, kidney, prostate, blood.	0.005 mg/m³ (OSHA PEL)
Chromium	Noncombustible, fine dust burns rapidly if heated.	Toxic by inhalation, ingestion, skin/eye contact irritant. Affects eyes, skin, and respiratory system.	0.5 mg/m³ (NIOSH REL- TWA) 1 mg/m³ (OHSA PEL- TWA)
Iron	Noncombustible solid.	Toxic by inhalation. Affects respiratory system.	0.1 mg/m³ (NIOSH REL- TWA)
Lead	Not flammable. Emits toxic fumes when heated.	Toxic by ingestion and dust or fume inhalation. Lead poisoning is common. Three types include alimentary, neuromotor and encephalic. Some lead compounds are experimental carcinogens of lungs and kidneys.	0.050 mg/m ³ (NIOSH REL- TWA) 0.050 mg/m ³ (OSHA PEL- TWA)
Magnesium	Noncombustible solid.	Toxic by inhalation, skin/eye contact irritant. Affects eyes, respiratory system.	10 mg/m³ (NIOSH REL TWA) 15 mg/m³ total (OSHA PEL- TWA) 5 mg/m³ respirable (OSHA PEL TWA)
Manganese	Combustible solid, will react with water or steam.	Toxic by inhalation, ingestion. Affects respiratory system, central nervous system, blood, kidneys.	1 mg/m³ (NIOSH REL- TWA) 3 mg/m³ (TLV-STEL) 5 mg/m³ (TLV-C)
Mercury	Not flammable. Emits toxic fumes when heated.	Toxic by ingestion, skin absorption and inhalation of vapors and fumes. Neurological, pulm. and renal toxin.	0.05 mg/m³ as vapor (NIOSH REL TWA) 0.1 mg/m³ C (NIOSH REL) 0.1 mg/m³ (OSHA TWA)

Substance	Flammability/Reactivity	Toxicity/Carcinogenicity	Standards
Nickel	Combustible in solid form	Toxic by ingestion, skin absorption and inhalation of dust or fumes. Neurological, pulmonary and renal toxins.	0.015 mg/m³ (NIOSH REL- TWA) 1.0 mg/m³ (OSHA PEL- TWA)
Selenium	Combustible solid, reacts violently with oxidants and strong acids, toxic fumes when heated.	Toxic by inhalation, ingestion, skin/eye contact irritant. Affects eyes, skin, respiratory system, liver, kidneys, blood, and spleen.	0.2 mg/m³ (NIOSH REL- TWA) 0.2 mg/m³ (OSHA PEL- TWA)
Sodium	Highly flammable, emits toxic fumes when heated, reacts violently with water causing fire/explosion.	Serious local effects by all routes of exposure through inhalation, ingestion and skin/eye contact.	TLV not established for sodium. For anhydrous sodium salts 1.0 mg/m³ (NIOSH REL TWA)
Thallium	Gives off toxic fumes when heated, reacts with strong acids and halogens at room temperature.	Toxic by inhalation, skin adsorption, ingestion, skin/eye contact irritant. Affects eyes, respiratory system, central nervous system, liver, kidneys, and GI tract.	0.1 mg/m³ (NIOSH REL- TWA) 0.1 mg/m³ (OSHA PEL- TWA)
Zinc	Combustible in solid form	Toxic by ingestion, skin absorption and inhalation of dust or fumes. Neurological, pulmonary and renal toxin.	As zinc oxide 5.0 mg/m³ (NISOH TWA as respirable dust, OSHA PEL- TWA) 15 mg/m³ total (OSHA PEL TWA)

NOTES FOR TABLE 3-2-

- 1. Standards are 8-Hour Time-Weighted Averages (TWAs) unless otherwise noted.
- Adopted values are limits which have been proposed for the first time, or for which a change in the "Adopted" listing has been proposed under the notice of intended changes by the American Conference of Governmental Industrial Hygienists.
- 3. TLV-C-Ceiling The exposure that should not be exceeded, even instantaneously.
- TLV-STEL Short term exposure limit 15-minute TWA exposure which should not be exceeded at any time during a workday.

<u>REFERENCES</u>

"Threshold Limit Values and Biological Exposure Indices for 1990-1991." American Conference of Governmental Industrial Hygienists, Cincinnati, Ohio, 1990.

Department of Labor, Occupational Safety and Health Administration, 29 CFR, Part 1910, Air Contaminants, Final Rate, January 19, 1989.

"NIOSH Pocket Guide to Chemical Hazards." Department of Health and Human Services (DHHS) National Institute for Occupational Safety and Health (NIOSH), Publication No. 2005-149, September, 2007 and online at https://www.cdc.gov/niosh/npg/default.html

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"PCB Safety Data Sheet." National Institute of Standards and Technology, May 27, 2015. Online at https://www-s.nist.gov/srmors/msds/3090-MSDS.pdf

Hawley, Fessner G. The Condensed Chemical Dictionary, Tenth Edition, New York: Van Nostrand Reinhold, 1981. Sax, R. Irving. Dangerous Properties of Industrial Materials, Sixth Edition, New York, Van Nostrand Reinhold, 1984.

3.5 PERSONAL PROTECTION

- A. Personnel working onsite may be exposed to levels of hazardous airborne contaminants released during various site activities or may come in contact with contaminants in excavated soils, various levels of protection may be required during excavation activities. Components of different levels of personal protection that may be required. The Contractors HSO shall determine the appropriate level of PPE based on the proposed field activities. The HASP shall identify the different levels of PPE and the actions levels for each level of PPE.
- B. Some modification in safety equipment (e.g., switching from polycoated disposable coveralls to standard disposable coveralls) may be implemented in order to balance concerns for full contaminant protection against concerns for the possibility of heat stress resulting from the need to wear more restrictive protective equipment. Such modifications may be implemented only if approved in advance by the Site HSO, following consultation with the Contractor's Project HSO. Protective equipment which fully complies with the requirements of all required levels of protection will be immediately available at all times on the site.
- C. A site log with required sign-in and sign-out procedures will serve to document the amount of time spent onsite by each worker.

3.6 EMERGENCY PROCEDURES

- A. Emergency procedures established to respond to these incidents are covered under the sections that follow.
 - 1. Communications: A cellular telephone shall be maintained by the Contractor's Site HSO.
 - 2. In the event of a fire that cannot be controlled with available equipment, or in the event of an explosion, the local fire department will be summoned immediately by the Contractor's Site HSO, who shall apprise them of the situation upon their arrival. ECHDC will also be notified.
 - 3. First Aid: First aid for personal injuries will be administered by the Contractor's Site HSO. If a site worker should require further treatment, he will be transported to the hospital in a vehicle maintained onsite for this purpose, or an ambulance will be summoned. The onsite vehicle will carry written direction to the hospital as well as a map showing the route.
 - 4. All accidents, however insignificant, will be reported to the Contractor's Site HSO. Personnel designated to administer first aid will have received a minimum of eight hours training in first aid and CPR, and be certified by the American Red Cross.
 - 5. Emergency Assistance: A list of names, telephone numbers, and location of police, fire, hospital, and other agencies whose services might be required, or from whom information might be needed, will be carried in the onsite vehicle. The list shall include, at a minimum:

a. Fire Department: 911

- b. Police Department: 911
- c. Upstate Poison Control Center: 1-800-222-1222
- d. NYSDEC Emergency Hotline: 1-800-457-7362
- e. Location with map and directions to the nearest medical treatment facility

END OF SECTION 013529

SECTION 014000 - QUALITY REQUIREMENTS

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes administrative and procedural requirements for quality assurance and quality control.
- B. Testing and inspection services are required to verify compliance with requirements specified or indicated. These services do not relieve Contractor of responsibility for compliance with the Contract Document requirements.
 - 1. Specified tests, inspections, and related actions do not limit Contractor's other quality-assurance and quality-control procedures that facilitate compliance with the Contract Document requirements.
 - 2. Requirements for Contractor to provide quality-assurance and quality-control services required by Architect, Owner, Construction Manager, or authorities having jurisdiction are not limited by provisions of this Section.

1.2 DEFINITIONS

- A. Experienced: When used with an entity or individual, "experienced" unless otherwise further described means having successfully completed a minimum of five previous projects similar in nature, size, and extent to this Project; being familiar with special requirements indicated; and having complied with requirements of authorities having jurisdiction.
- B. Field Quality-Control Tests and Inspections: Tests and inspections that are performed on-site for installation of the Work and for completed Work.
- C. Installer/Applicator/Erector: Contractor or another entity engaged by Contractor as an employee, Subcontractor, or Sub-subcontractor, to perform a particular construction operation, including installation, erection, application, assembly, and similar operations.
 - 1. Use of trade-specific terminology in referring to a Work result does not require that certain construction activities specified apply exclusively to specific trade(s).
- D. Mockups: Physical assemblies of portions of the Work constructed to establish the standard by which the Work will be judged. Mockups are not Samples.
 - 1. Mockups are used for one or more of the following:
 - a. Verify selections made under Sample submittals.
 - b. Demonstrate aesthetic effects.
 - c. Demonstrate the qualities of products and workmanship.
 - d. Demonstrate successful installation of interfaces between components and systems.
 - e. Perform preconstruction testing to determine system performance.

- 2. Product Mockups: Mockups that may include multiple products, materials, or systems specified in a single Section.
- 3. In-Place Mockups: Mockups constructed on-site in their actual final location as part of permanent construction.
- E. Preconstruction Testing: Tests and inspections performed specifically for Project before products and materials are incorporated into the Work, to verify performance or compliance with specified criteria. Unless otherwise indicated, copies of reports of tests or inspections performed for other than the Project do not meet this definition.
- F. Product Tests: Tests and inspections that are performed by a nationally recognized testing laboratory (NRTL) according to 29 CFR 1910.7, by a testing agency accredited according to NIST's National Voluntary Laboratory Accreditation Program (NVLAP), or by a testing agency qualified to conduct product testing and acceptable to authorities having jurisdiction, to establish product performance and compliance with specified requirements.
- G. Source Quality-Control Tests and Inspections: Tests and inspections that are performed at the source; for example, plant, mill, factory, or shop.
- H. Testing Agency: An entity engaged to perform specific tests, inspections, or both. The term "testing laboratory" has the same meaning as the term "testing agency."
- I. Quality-Assurance Services: Activities, actions, and procedures performed before and during execution of the Work to guard against defects and deficiencies and substantiate that proposed construction will comply with requirements.
- J. Quality-Control Services: Tests, inspections, procedures, and related actions during and after execution of the Work to evaluate that actual products incorporated into the Work and completed construction comply with requirements. Contractor's quality-control services do not include contract administration activities performed by Architect or Construction Manager.

1.3 DELEGATED DESIGN SERVICES

- A. Performance and Design Criteria: 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.
 - 1. If criteria indicated are not sufficient to perform services or certification required, submit a written request for additional information to Architect.
- B. Delegated Design Services Statement: Submit a statement, 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, indicating that the products and systems are in compliance with performance and design criteria indicated. Include list of codes, loads, and other factors used in performing these services.

1.4 CONFLICTING REQUIREMENTS

- A. Conflicting Standards and Other Requirements: If compliance with two or more standards or requirements is specified and the standards or requirements establish different or conflicting requirements for minimum quantities or quality levels, inform the Architect regarding the conflict and obtain clarification prior to proceeding with the Work. Refer conflicting requirements that are different, but apparently equal, to Architect for clarification before proceeding.
- B. Minimum Quantity or Quality Levels: The quantity or quality level shown or specified is the minimum provided or performed. The actual installation may comply exactly with the minimum quantity or quality specified, or it may exceed the minimum within reasonable limits. To comply with these requirements, indicated numeric values are minimum or maximum, as appropriate, for the context of requirements. Refer uncertainties to Architect for a decision before proceeding.

1.5 ACTION SUBMITTALS

A. Mockup Shop Drawings:

- 1. Include plans, sections, elevations, and details, indicating materials and size of mockup construction.
- 2. Indicate manufacturer and model number of individual components.
- 3. Provide axonometric drawings for conditions difficult to illustrate in two dimensions.

1.6 INFORMATIONAL SUBMITTALS

- A. Contractor's Statement of Responsibility: When required by authorities having jurisdiction, submit copy of written statement of responsibility submitted to authorities having jurisdiction before starting work on the following systems:
 - 1. Seismic-force-resisting system, designated seismic system, or component listed in the Statement of Special Inspections.
 - 2. Main wind-force-resisting system or a wind-resisting component listed in the Statement of Special Inspections.
- B. Testing Agency Qualifications: For testing agencies specified in "Quality Assurance" Article to demonstrate their capabilities and experience. Include proof of qualifications in the form of a recent report on the inspection of the testing agency by a recognized authority.
- C. Permits, Licenses, and Certificates: For Owner's record, submit copies of permits, licenses, certifications, inspection reports, releases, jurisdictional settlements, notices, receipts for fee payments, judgments, correspondence, records, and similar documents established for compliance with standards and regulations bearing on performance of the Work.

1.7 REPORTS AND DOCUMENTS

A. Test and Inspection Reports: Prepare and submit certified written reports specified in other Sections. Include the following:

- 1. Date of issue.
- 2. Project title and number.
- 3. Name, address, telephone number, and email address of testing agency.
- 4. Dates and locations of samples and tests or inspections.
- 5. Names of individuals making tests and inspections.
- 6. Description of the Work and test and inspection method.
- 7. Identification of product and Specification Section.
- 8. Complete test or inspection data.
- 9. Test and inspection results and an interpretation of test results.
- 10. Record of temperature and weather conditions at time of sample taking and testing and inspection.
- 11. Comments or professional opinion on whether tested or inspected Work complies with the Contract Document requirements.
- 12. Name and signature of laboratory inspector.
- 13. Recommendations on retesting and reinspecting.
- B. Manufacturer's Technical Representative's Field Reports: Prepare written information documenting manufacturer's technical representative's tests and inspections specified in other Sections. Include the following:
 - 1. Statement on condition of substrates and their acceptability for installation of product.
 - 2. Statement that products at Project site comply with requirements.
 - 3. Summary of installation procedures being followed, whether they comply with requirements and, if not, what corrective action was taken.
 - 4. Results of operational and other tests and a statement of whether observed performance complies with requirements.
 - 5. Other required items indicated in individual Specification Sections.
- C. Factory-Authorized Service Representative's Reports: Prepare written information documenting manufacturer's factory-authorized service representative's tests and inspections specified in other Sections. Include the following:
 - 1. Statement that equipment complies with requirements.
 - 2. Results of operational and other tests and a statement of whether observed performance complies with requirements.
 - 3. Other required items indicated in individual Specification Sections.

1.8 QUALITY ASSURANCE

- A. Qualifications paragraphs in this article establish the minimum qualification levels required; individual Specification Sections specify additional requirements.
- B. Manufacturer Qualifications: A firm experienced in manufacturing products or systems similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units. As applicable, procure products from manufacturers able to meet qualification requirements, warranty requirements, and technical or factory-authorized service representative requirements.

- C. Fabricator Qualifications: A firm experienced in producing products similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.
- D. Installer Qualifications: A firm or individual experienced in installing, erecting, applying, or assembling work similar in material, design, and extent to that indicated for this Project, whose work has resulted in construction with a record of successful in-service performance.
- E. Professional Engineer Qualifications: A professional engineer who is legally qualified to practice in jurisdiction where Project is located and who is experienced in providing engineering services of the kind indicated. Engineering services are defined as those performed for installations of the system, assembly, or product that are similar in material, design, and extent to those indicated for this Project.
- F. Specialists: Certain Specification Sections require that specific construction activities be performed by entities who are recognized experts in those operations. Specialists will satisfy qualification requirements indicated and engage in the activities indicated.
 - 1. Requirements of authorities having jurisdiction supersede requirements for specialists.
- G. Testing and Inspecting Agency Qualifications: An NRTL, an NVLAP, or an independent agency with the experience and capability to conduct testing and inspection indicated, as documented according to ASTM E329; and with additional qualifications specified in individual Sections; and, where required by authorities having jurisdiction, that is acceptable to authorities.
- H. Manufacturer's Technical Representative Qualifications: An authorized representative of manufacturer who is trained and approved by manufacturer to observe and inspect installation of manufacturer's products that are similar in material, design, and extent to those indicated for this Project.
- I. Factory-Authorized Service Representative Qualifications: An authorized representative of manufacturer who is trained and approved by manufacturer to inspect, demonstrate, repair, and perform service on installations of manufacturer's products that are similar in material, design, and extent to those indicated for this Project.
- J. Preconstruction Testing: Where testing agency is indicated to perform preconstruction testing for compliance with specified requirements for performance and test methods, comply with the following:
 - 1. Contractor responsibilities include the following:
 - a. Provide test specimens representative of proposed products and construction.
 - b. Submit specimens in a timely manner with sufficient time for testing and analyzing results to prevent delaying the Work.
 - c. When testing is complete, remove test specimens and test assemblies, and mockups; do not reuse products on Project.
 - 2. Testing Agency Responsibilities: Submit a certified written report of each test, inspection, and similar quality-assurance service to Architect, through Construction Manager, with

copy to Contractor. Interpret tests and inspections and state in each report whether tested and inspected work complies with or deviates from the Contract Documents.

- K. Mockups: Before installing portions of the Work requiring mockups, build mockups for each form of construction and finish required to comply with the following requirements, using materials indicated for the completed Work:
 - 1. Build mockups of size indicated.
 - 2. Build mockups in location indicated or, if not indicated, as directed by Architect or Construction Manager.
 - 3. Notify Architect and Construction Manager three days in advance of dates and times when mockups will be constructed.
 - 4. Employ supervisory personnel who will oversee mockup construction. Employ workers that will be employed to perform same tasks during the construction at Project.
 - 5. Demonstrate the proposed range of aesthetic effects and workmanship.
 - 6. Obtain Architect's and Construction Manager's approval of mockups before starting corresponding work, fabrication, or construction.
 - a. Allow three days for initial review and each re-review of each mockup.
 - 7. Promptly correct unsatisfactory conditions noted by Architect's preliminary review, to the satisfaction of the Architect, before completion of final mockup.
 - 8. Approval of mockups by the Architect does not constitute approval of deviations from the Contract Documents contained in mockups unless Architect specifically approves such deviations in writing.
 - 9. Maintain mockups during construction in an undisturbed condition as a standard for judging the completed Work.
 - 10. Demolish and remove mockups when directed unless otherwise indicated.

1.9 QUALITY CONTROL

- A. Owner Responsibilities: Where quality-control services are indicated as Owner's responsibility, Owner will engage a qualified testing agency to perform these services.
 - 1. Owner will furnish Contractor with names, addresses, and telephone numbers of testing agencies engaged and a description of types of testing and inspection they are engaged to perform.
 - 2. Costs for retesting and reinspecting construction that replaces or is necessitated by Work that failed to comply with the Contract Documents will be charged to Contractor.
- B. Contractor Responsibilities: Tests and inspections not explicitly assigned to Owner are Contractor's responsibility. Perform additional quality-control activities, whether specified or not, to verify and document that the Work complies with requirements.
 - 1. Engage a qualified testing agency to perform quality-control services.
 - a. Contractor will not employ same entity engaged by Owner, unless agreed to in writing by Owner.

- 2. Notify testing agencies at least 24 hours in advance of time when Work that requires testing or inspection will be performed.
- 3. Where quality-control services are indicated as Contractor's responsibility, submit a certified written report, in duplicate, of each quality-control service.
- 4. Testing and inspection requested by Contractor and not required by the Contract Documents are Contractor's responsibility.
- 5. Submit additional copies of each written report directly to authorities having jurisdiction, when they so direct.
- C. Retesting/Reinspecting: Regardless of whether original tests or inspections were Contractor's responsibility, provide quality-control services, including retesting and reinspecting, for construction that replaced Work that failed to comply with the Contract Documents.
- D. Testing Agency Responsibilities: Cooperate with Architect, Construction Manager, and Contractor in performance of duties. Provide qualified personnel to perform required tests and inspections.
 - 1. Notify Architect, Construction Manager, and Contractor promptly of irregularities or deficiencies observed in the Work during performance of its services.
 - 2. Determine the locations from which test samples will be taken and in which in-situ tests are conducted.
 - 3. Conduct and interpret tests and inspections and state in each report whether tested and inspected Work complies with or deviates from requirements.
 - 4. Submit a certified written report, in duplicate, of each test, inspection, and similar quality-control service through Contractor.
 - 5. Do not release, revoke, alter, or increase the Contract Document requirements or approve or accept any portion of the Work.
 - 6. Do not perform duties of Contractor.
- E. Manufacturer's Field Services: Where indicated, engage a factory-authorized service representative to inspect field-assembled components and equipment installation, including service connections. Report results in writing as specified in Section 013300 "Submittal Procedures."
- F. Manufacturer's Technical Services: Where indicated, engage a manufacturer's technical representative to observe and inspect the Work. Manufacturer's technical representative's services include participation in preinstallation conferences, examination of substrates and conditions, verification of materials, observation of Installer activities, inspection of completed portions of the Work, and submittal of written reports.
- G. Contractor's Associated Requirements and Services: Cooperate with agencies and representatives performing required tests, inspections, and similar quality-control services, and provide reasonable auxiliary services as requested. Notify agency sufficiently in advance of operations to permit assignment of personnel. Provide the following:
 - 1. Access to the Work.
 - 2. Incidental labor and facilities necessary to facilitate tests and inspections.
 - 3. Adequate quantities of representative samples of materials that require testing and inspection. Assist agency in obtaining samples.
 - 4. Facilities for storage and field curing of test samples.

- 5. Preliminary design mix proposed for use for material mixes that require control by testing agency.
- 6. Security and protection for samples and for testing and inspection equipment at Project site
- H. Coordination: Coordinate sequence of activities to accommodate required quality-assurance and quality-control services with a minimum of delay and to avoid necessity of removing and replacing construction to accommodate testing and inspection.
 - 1. Schedule times for tests, inspections, obtaining samples, and similar activities.

1.10 SPECIAL TESTS AND INSPECTIONS

- A. Special Tests and Inspections: Owner will engage a qualified special inspector to conduct special tests and inspections required by authorities having jurisdiction as the responsibility of Owner, as indicated in the Section 014100 "Special Inspections and Testing" and Section 014100B "Statement of Special Inspections" and as follows:
 - 1. Verifying that manufacturer maintains detailed fabrication and quality-control procedures and reviewing the completeness and adequacy of those procedures to perform the Work.
 - 2. Notifying Architect, Construction Manager, and Contractor promptly of irregularities and deficiencies observed in the Work during performance of its services.
 - 3. Submitting a certified written report of each test, inspection, and similar quality-control service to Architect, through Construction Manager, with copy to Contractor and to authorities having jurisdiction.
 - 4. Submitting a final report of special tests and inspections at Substantial Completion, which includes a list of unresolved deficiencies.
 - 5. Interpreting tests and inspections and stating in each report whether tested and inspected work complies with or deviates from the Contract Documents.
 - 6. Retesting and reinspecting corrected Work.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 TEST AND INSPECTION LOG

- A. Test and Inspection Log: Prepare a record of tests and inspections. Include the following:
 - 1. Date test or inspection was conducted.
 - 2. Description of the Work tested or inspected.
 - 3. Date test or inspection results were transmitted to Architect.
 - 4. Identification of testing agency or special inspector conducting test or inspection.

- B. Maintain log at Project site. Post changes and revisions as they occur. Provide access to test and inspection log for Architect's and Construction Manager's and authorities' having jurisdiction reference during normal working hours.
 - 1. Submit log at Project closeout as part of Project Record Documents.

3.2 REPAIR AND PROTECTION

- A. General: On completion of testing, inspection, sample taking, and similar services, repair damaged construction and restore substrates and finishes.
 - 1. Provide materials and comply with installation requirements specified in other Specification Sections or matching existing substrates and finishes. Restore patched areas and extend restoration into adjoining areas with durable seams that are as invisible as possible. Comply with the Contract Document requirements for cutting and patching in Section 017300 "Execution."
- B. Protect construction exposed by or for quality-control service activities.
- C. Repair and protection are Contractor's responsibility, regardless of the assignment of responsibility for quality-control services.

END OF SECTION 014000

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SECTION 014100 - SPECIAL INSPECTIONS & STRUCTURAL TESTING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 GENERAL REQUIREMENTS

- A. Special Inspections and Structural Testing shall be in accordance with Chapter 17 of the *International Building Code* 2020.
- B. Special inspections and Structural Testing shall be in accordance with *CASE National Practice Guideline for Special Inspections*.
- C. The program of Special Inspection and Structural Testing is a Quality Assurance program intended to ensure that the work is performed in accordance with the Contract Documents.
- D. This specification section is intended to inform the Contractor of the Owner's quality assurance program and the extent of the Contractor's responsibilities. This specification section is also intended to notify the Special Inspector, Testing Laboratory, and other Agents of the Special Inspector of their requirements and responsibilities.
- E. Related Specification Sections include the following:
 - 1. Division 1 Section "Quality Requirements" for testing agency procedures and administrative requirements.
 - 2. Division 31 Section "Earthwork" for material testing and other quality requirements.
 - 3. Division 3 Section "Cast-in-Place Concrete" for material testing and other quality requirements.
 - 4. Division 5 Sections "Structural Steel" and "Fluted Steel Decks" for material testing and other quality requirements.

1.3 SCHEDULE OF INSPECTIONS AND TESTS

A. Required inspections and tests are described in the individual Specification Sections for the items to be inspected or tested and the "Schedule of Special Inspections", which is included at the end of this Section.

1.4 QUALIFICATIONS

A. The Special Inspector shall be a licensed Professional Engineer or Structural Engineer who is approved by the Structural Engineer of Record (SER) and Building Official.

- B. The Testing Laboratory and individual technicians shall be approved by the Structural Engineer of Record (SER) and Building Official.
- C. The testing laboratory shall maintain a full-time licensed Professional Engineer or Structural Engineer on staff who shall certify all test reports. The Engineer shall be responsible for the training of the testing technicians and shall be in responsible charge of the field and laboratory testing operations.
- D. Special Inspections shall be performed by inspectors who are either licensed Professional Engineers (P.E.), Structural Engineers (S.E.), or Engineers-In-Training (EIT) with an education and background in structural engineering except as indicated below.
 - 1. Special Inspections of soils and foundations may be performed by inspectors with an education and background in geotechnical engineering in lieu of a background in structural engineering.
 - 2. Technicians performing sampling and testing of concrete shall be ACI certified *Concrete Field Testing Technicians Grade 1*.
 - 3. Inspectors performing inspections of concrete work such as inspections of concrete placement, batching, reinforcing placement, curing and protection, may be ACI certified *Concrete Construction Inspectors* or ICBO certified *Reinforced Concrete Special Inspector* in lieu of being a licensed P.E., S.E., or EIT.
 - 4. Technicians performing visual inspection of welding shall be AWS *Certified Welding Inspectors* or ICBO certified *Structural Steel and Welding Special Inspectors*, technicians performing non-destructive testing such as ultrasonic testing, radiographic testing, magnetic particle testing, or dye-penetrant testing shall be certified as an ASNT-TC Level II or Level III technician.
 - 5. Inspectors performing inspections of spray fireproofing may be ICBO certified *Spray-Applied Fireproofing Special Inspector*.
 - 6. Technicians performing standard tests described by specific ASTM Standards shall have training in the performance of such tests and must be able to demonstrate either by oral or written examination competence for the test to be conducted. They shall be under the supervision of a licensed Professional Engineer and shall not be permitted to independently evaluate test results.

1.5 SUBMITTALS

- A. If requested, the Special Inspector and Testing Laboratory shall submit to the SER and Building Official for review, a copy of their qualifications which shall include the names and qualifications of each of the individual inspectors and technicians who will be performing inspections or tests.
- B. The Special Inspector and Testing Laboratory shall disclose any past or present business relationship or potential conflict of interest with the Contractor or any of the Subcontractors whose work will be inspected or tested.

1.6 PAYMENT

- A. The Owner shall engage and pay for the services of the Special Inspector, Agents of the Special Inspector, and Testing Laboratory.
- B. If any materials which require Special Inspections are fabricated in a plant which is not located within 100 miles of the project, the Contractor shall be responsible for the travel expenses of the Special Inspector or Testing Laboratory.
- C. The Contractor shall be responsible for the cost of any retesting or reinspection of work which fails to comply with the requirements of the Contract Documents.

1.7 CONTRACTOR RESPONSIBILITIES

- A. Without exception, work which fails to comply with the requirements of the Contract Documents or work which has not been inspected must be immediately removed and replaced, at the Contractor's cost.
- B. The Contractor shall cooperate with the Special Inspector and his agents so that the Special Inspections and testing may be performed without hindrance.
- C. The Contractor shall review the *Statement of Special Inspections* and shall be responsible for coordinating and scheduling inspections and tests. The Contractor shall notify the Special Inspector or Testing Laboratory at least 24 hours in advance of a required inspection or test. Uninspected work that required inspection may be rejected solely on that basis.
- D. The Contractor shall provide incidental labor and facilities to provide access to the work to be inspected or tested, to obtain and handle samples at the site or at source of products to be tested, to facilitate tests and inspections, storage and curing of test samples.
- E. The Contractor shall keep at the project site the latest set of construction drawings, field sketches, approved shop drawings, and specifications for use by the inspectors and testing technicians.
- F. The Special Inspection program shall in no way relieve the Contractor of his obligation to perform work in accordance with the requirements of the Contract Documents or from implementing an effective Quality Control program. All work that is to be subjected to Special Inspections shall first be reviewed by the Contractor's quality control personnel.
- G. The Contractor shall be solely responsible for construction site safety.

1.8 LIMITS ON AUTHORITY

- A. The Special Inspector or Testing Laboratory may not release, revoke, alter, or enlarge on the requirements of the Contract Documents.
- B. The Special Inspector or Testing Laboratory will not have control over the Contractor's means and methods of construction.

- C. The Special Inspector or Testing Laboratory shall not be responsible for construction site safety.
- D. The Special Inspector or Testing Laboratory has no authority to stop the work.

1.9 STATEMENT OF SPECIAL INSPECTIONS

A. The *Statement of Special Inspections* will be prepared by the Structural Engineer of Record (SER) and shall be submitted with the application for Building Permit.

1.10 RECORDS AND REPORTS

- A. Detailed daily reports shall be prepared of each inspection or test and submitted to the Special Inspector. Reports shall include:
 - 1. Date of test or inspection.
 - 2. Name of inspector or technician.
 - 3. Location of specific areas tested or inspected.
 - 4. Description of test or inspection and results.
 - 5. Applicable ASTM standard.
 - 6. Weather conditions.
 - 7. Engineer's seal and signature.
- B. The Special Inspector shall submit interim reports to the Building Official, if required, which include all inspections and test reports received during that period. Copies shall be sent to the SER, Architect, and Contractor.
- C. Any discrepancies from the Contract Documents found during a Special Inspection shall be immediately reported to the Contractor. If the discrepancies are not corrected, the Special Inspector shall notify the SER and Building Official. Reports shall document all discrepancies identified and the corrective action taken.
- D. The Testing Laboratory shall immediately notify the Special Inspector and the SER by telephone, fax, or e-mail of any results which fail to comply with the requirements of the Contract Documents.
- E. Reports shall be submitted to the Special Inspector within 7 days of the inspection or test. Hand written reports may be submitted if final typed copies are not available.
- F. At the completion of the work requiring Special Inspections, each inspection agency and testing laboratory shall provide a statement to the Special Inspector that all work was completed in substantial conformance with the Contract Documents and that all appropriate inspections and tests were performed.

1.11 FINAL REPORT OF SPECIAL INSPECTIONS

A. The *Final Report of Special Inspections* shall be completed by the Special Inspector and submitted to the SER and Building Official prior to the issuance of a Certificate of Use and Occupancy.

B. The *Final Report of Special Inspections* will certify that all required inspections have been performed and will itemize any discrepancies that were not corrected or resolved.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)

END OF SECTION 014100

Statement of Special Inspections

Project: Location: Owner: Owner's Address:			
Architect of Record:			
Structural Engineer of Record:	WSP USA	– Buffalo, NY	
This Statement of Special Inspections is Special Inspection requirements of the Bu Inspection Services applicable to this proof other approved agencies intended to be re-	uilding Code ject as well a	e of New York State. It as the name of the Spec	includes a Schedule of Special cial Inspector and the identity of
The Special Inspector shall keep records Official, Structural Engineer and Archite immediate attention of the Contractor discrepancies shall be brought to the att Record. The Special Inspection program	ect of Record for correcti ention of the	d. Discovered discrepa ion. If such discrepa Building Official, Struc	ancies shall be brought to the ancies are not corrected, the stural Engineer and Architect of
As requested, interim reports shall be s Architect of Record.	submitted to	the Building Official, C	Owner, Structural Engineer and
A Final Report of Special Inspections correction of any discrepancies noted in the Use and Occupancy.	documenting he inspection	g completion of all rec as shall be submitted pri	uired Special Inspections and or to issuance of a Certificate of
Job site safety and means and methods of	of constructio	n are solely the respons	ibility of the Contractor.
Interim Report Frequency: As Reques	ted by Build	ing Official	or per attached schedule.
Prepared by:			
(type or print name)		_	
Signature		 Date	Design Professional Seal
-			Ž.
Owner's Authorization:		Building Official's Acc	eptance:
Signature	Date	Signature	Date

Project:

Schedule of Special Inspection Services

The following sheets comprise the required schedule of special inspections for this project. The construction divisions which require special inspections for this project are as follows:

\boxtimes	Soils and Foundations	\boxtimes	Cold-Formed Steel Framing
\boxtimes	Concrete Construction		Sprayed Fire Resistant Material
	Precast Concrete		Wood Construction
	Masonry Construction		Exterior Insulation and Finish System
\boxtimes	Structural Steel Construction		Smoke Control

Inspection Agents	Firm	Address
Special Inspector		
2. Testing Laboratory		
3. Testing Laboratory		
4. Other		

Note: The qualifications of all personnel performing Special Inspection activities are subject to the approval of the Building Official.

The inspection and testing agent shall be engaged by the Owner or the Owner's Agent, and not by the Contractor or Subcontractor whose work is to be inspected or tested. Any conflict of interest must be disclosed to the Building Official, prior to commencing work.

The credentials of all Inspectors and testing technicians shall be provided if requested.

It is recommended that the person administering the Special Inspections program be a Professional Engineer experienced in the design of buildings.

Key for Minimum Qualifications of Inspection Agents (where indicated on Schedules)			
PE	Professional Engineer		
EIT	Engineering in Training		
ACI	American Concrete Institute Certified Concrete Field Testing Technician		
AWS	American Welding Society Certified Welding Inspector		
ASNT	American Society of Non-Destructive Testing - Level II or III		

Qualifications of inspection agents may be indicated on the Schedule in instances where the Structural Engineer deems such requirements are appropriate.

Soils and Foundations

Verification & Inspection	Continuous	Periodic	Referenced Standard	<u>IBC</u> Reference	Agent No. (Qualif.)
Verify materials below shallow foundations are adequate to achieve the design bearing capacity.		х			
Verify excavations are extended to proper depth and have reached proper material.		х			
Perform classification and testing of compacted fill materials.		×			
Verify use of proper materials, densities and lift thicknesses during placement and compaction of compacted fill.	X				
Prior to placement of compacted fill, inspect subgrade and verify that site has been prepared properly.		X			

of

Concrete Construction

Verification & Inspection	Continuous	Periodic	Referenced Standard	<u>IBC</u> Reference	Agent No. (Qualif.)
Inspection of reinforcing steel, including prestressing tendons, and placement.		Х	ACI 318: Ch. 20, 25.2,25.3,26.6.1- 26.6.3	1908.4	
Inspection of reinforcing steel welding in accordance with Table 1705.3, Item 2.			AWS D1.4 ACI 318: 26.6.4	-	
Inspect bolts to be installed in concrete prior to and during placement of concrete where allowable loads have been increased.		X	ACI 318: 17.8.2	1	
4. Verifying use of required design mix.		Х	ACI 318: Ch. 19, 26.4.3, 26.4.4	1904.1, 1904.2, 1908.2, 1908.3	
 At the time fresh concrete is sampled to fabricate specimens for strength tests, and determine the temperature of the concrete. 	Y		ASTM C 172 ASTM C 31 ACI 318: 26.4, 26.12	1908.10	
Inspection for maintenance of specified curing temperature and techniques.		Х	ACI 318: 26.5.3-26.5.5	1908.9	
Inspect formwork for shape, location and dimensions of the concrete member being formed.		Х	ACI 318: 26.11.1.2(b)	-	

Structural Steel Construction

Verification & Inspection	Continuous	Periodic	Referenced Standard	BC-NYS Reference	Agent No. (Qualif.)
Material verification of high-strength bolts, nuts, and washers: a. Identification markings to conform to ASTM standards specified in the approved construction documents. b. Manufacturer's certificate of compliance required.		x x	Applicable ASTM material specifications; AISC 360, Section A3.3	-	
Inspection of high-strength bolting: a. Bearing-type connections. b. Slip-critical connections.		X X	AISC 360 Section M2.5	1704.3.3	
 Material verification of structural steel: a. Identification markings to conform to ASTM standards specified in the approved construction documents. b. Manufacturers' certified mill test reports. 	X	X	ASTM A 6 or ASTM A 568 ASTM A 6 or ASTM A 568	1708.4	
4. Material verification of weld filler materials: a. Identification markings to conform to AWS specification in the approved construction documents. b. Manufacturer's certificate of compliance required.	-	-	AISC 360, Section A3.5	•	
 5. Inspection of welding: a. Structural steel: 1) Complete and partial penetration groove welds. 2) Multi-pass fillet welds. 3) Single-pass fillet welds > 5/16". 4) Single-pass fillet welds < 5/16". 5) Floor and roof deck welds. b. Reinforcing steel: 1) Verification of weldability of reinforcing steel other than ASTM A 706. 2) Reinforcing steel-resisting flexural and axial forces in intermediate and special moment frames, and boundary elements of special reinforced concrete shear walls and shear reinforcement. 3) Shear reinforcement. 4) Other reinforcing steel. 		X X X	AWS D1.3 AWS D1.4 ACI 318: 3.5.2	1704.3.1	
 6. Inspection of steel frame joint details for compliance with approved construction documents: a. Details such as bracing and stiffening. b. Member locations. c. Application of joint details at each connection. 		Х		1704.3.2	

of

Cold-Formed Steel Framing

Item	Scope	Agent No. (Qualif.)
1. Member Sizes	Verify construction with approved shop drawings.	
2. Material Thickness	Verify construction with approved shop drawings.	
3. Material Properties	Verify construction with approved shop drawings.	
4. Mechanical Connections	Verify construction with approved shop drawings.	
5. Welding	N/A	
6. Framing Details	Verify construction with approved shop drawings. Ensure shear walls are attached to structural steel framing.	
7. Other	N/A	

Final Report of Special Inspections

Project:		
Location:		
Owner:		
Owner's Address: Project:		
Special Inspector:		
To the best of my information, knowledge and believe itemized in the Statement of Special Inspections discovered discrepancies have been reported and re-	s submitted for permit	, have been performed and all
Comments:		
(Attach continuation sheets if required to complete th	ne description of correct	ions.)
Interim reports submitted prior to this final report for this final report.	m a basis for and are to	be considered an integral part of
Respectfully submitted,		
Special Inspector		
(T)	<u></u>	
(Type or print name)		
Cignoture	Doto	Decign Drofessional Coal
Signature	Date	Design Professional Seal
Copies:		
Owner – Architect of Record –		

Structural Engineer of Record – WSP USA Inc.

SECTION 014200 - REFERENCES

PART 1 - GENERAL

1.1 DEFINITIONS

- A. General: Basic Contract definitions are included in the Conditions of the Contract.
- B. "Approved": When used to convey Architect's action on Contractor's submittals, applications, and requests, "approved" is limited to Architect's duties and responsibilities as stated in the Conditions of the Contract.
- C. "Directed": A command or instruction by Architect. Other terms including "requested," "authorized," "selected," "required," and "permitted" have the same meaning as "directed."
- D. "Indicated": Requirements expressed by graphic representations or in written form on Drawings, in Specifications, and in other Contract Documents. Other terms including "shown," "noted," "scheduled," and "specified" have the same meaning as "indicated."
- E. "Regulations": Laws, ordinances, statutes, and lawful orders issued by authorities having jurisdiction, and rules, conventions, and agreements within the construction industry that control performance of the Work.
- F. "Furnish": Supply and deliver to Project site, ready for unloading, unpacking, assembly, installation, and similar operations.
- G. "Install": Unload, temporarily store, unpack, assemble, erect, place, anchor, apply, work to dimension, finish, cure, protect, clean, and similar operations at Project site.
- H. "Provide": Furnish and install, complete and ready for the intended use.
- I. "Project Site": Space available for performing construction activities. The extent of Project site is shown on Drawings and may or may not be identical with the description of the land on which Project is to be built.

1.2 INDUSTRY STANDARDS

- A. Applicability of Standards: Unless the Contract Documents include more stringent requirements, applicable construction industry standards have the same force and effect as if bound or copied directly into the Contract Documents to the extent referenced. Such standards are made a part of the Contract Documents by reference.
- B. Publication Dates: Comply with standards in effect as of date of the Contract Documents unless otherwise indicated.
 - 1. For standards referenced by applicable building codes, comply with dates of standards as listed in building codes.

- C. Copies of Standards: Each entity engaged in construction on Project should be familiar with industry standards applicable to its construction activity. Copies of applicable standards are not bound with the Contract Documents.
 - 1. Where copies of standards are needed to perform a required construction activity, obtain copies directly from publication source.

1.3 ABBREVIATIONS AND ACRONYMS

- A. Industry Organizations: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the entities in the following list. Abbreviations and acronyms not included in this list shall mean the recognized name of the entities indicated in Gale's "Encyclopedia of Associations: National Organizations of the U.S." or in Columbia Books' "National Trade & Professional Associations of the United States." The information in this list is subject to change and is believed to be accurate as of the date of the Contract Documents.
 - 1. AABC Associated Air Balance Council; www.aabc.com.
 - 2. AAMA American Architectural Manufacturers Association; www.aamanet.org.
 - 3. AAPFCO Association of American Plant Food Control Officials; www.aapfco.org.
 - 4. AASHTO American Association of State Highway and Transportation Officials; www.transportation.org.
 - 5. AATCC American Association of Textile Chemists and Colorists; www.aatcc.org.
 - 6. ABMA American Bearing Manufacturers Association; www.americanbearings.org.
 - 7. ABMA American Boiler Manufacturers Association; www.abma.com.
 - 8. ACI American Concrete Institute; (Formerly: ACI International); www.concrete.org.
 - 9. ACPA American Concrete Pipe Association; www.concrete-pipe.org.
 - 10. AEIC Association of Edison Illuminating Companies, Inc. (The); www.aeic.org.
 - 11. AF&PA American Forest & Paper Association; www.afandpa.org.
 - 12. AGA American Gas Association; www.aga.org.
 - 13. AHAM Association of Home Appliance Manufacturers; www.aham.org.
 - 14. AHRI Air-Conditioning, Heating, and Refrigeration Institute (The); www.ahrinet.org.
 - 15. AI Asphalt Institute; www.asphaltinstitute.org.
 - 16. AIA American Institute of Architects (The); www.aia.org.
 - 17. AISC American Institute of Steel Construction; www.aisc.org.
 - 18. AISI American Iron and Steel Institute; www.steel.org.
 - 19. AITC American Institute of Timber Construction; www.aitc-glulam.org.
 - 20. AMCA Air Movement and Control Association International, Inc.; www.amca.org.
 - 21. ANSI American National Standards Institute; www.ansi.org.
 - 22. AOSA Association of Official Seed Analysts, Inc.; www.aosaseed.com.
 - 23. APA APA The Engineered Wood Association; www.apawood.org.
 - 24. APA Architectural Precast Association; www.archprecast.org.
 - 25. API American Petroleum Institute; www.api.org.
 - 26. ARI Air-Conditioning & Refrigeration Institute; (See AHRI).
 - 27. ARI American Refrigeration Institute; (See AHRI).
 - 28. ARMA Asphalt Roofing Manufacturers Association; www.asphaltroofing.org.

29. ASCE - American Society of Civil Engineers; www.asce.org.

- 30. ASCE/SEI American Society of Civil Engineers/Structural Engineering Institute; (See ASCE).
- 31. ASHRAE American Society of Heating, Refrigerating and Air-Conditioning Engineers; www.ashrae.org.
- 32. ASME ASME International; (American Society of Mechanical Engineers); www.asme.org.
- 33. ASSE American Society of Sanitary Engineering; www.asse-plumbing.org.
- 34. ASSP American Society of Safety Professionals (The); www.assp.org.
- 35. ASTM ASTM International; www.astm.org.
- 36. ATIS Alliance for Telecommunications Industry Solutions; www.atis.org.
- 37. AVIXA Audiovisual and Integrated Experience Association; (Formerly: Infocomm International); www.soundandcommunications.com.
- 38. AWEA American Wind Energy Association; www.awea.org.
- 39. AWI Architectural Woodwork Institute; www.awinet.org.
- 40. AWMAC Architectural Woodwork Manufacturers Association of Canada; www.awmac.com.
- 41. AWPA American Wood Protection Association; www.awpa.com.
- 42. AWS American Welding Society; www.aws.org.
- 43. AWWA American Water Works Association; www.awwa.org.
- 44. BHMA Builders Hardware Manufacturers Association; www.buildershardware.com.
- 45. BIA Brick Industry Association (The); www.gobrick.com.
- 46. BICSI BICSI, Inc.; www.bicsi.org.
- 47. BIFMA BIFMA International; (Business and Institutional Furniture Manufacturer's Association); www.bifma.org.
- 48. BISSC Baking Industry Sanitation Standards Committee; www.bissc.org.
- 49. BWF Badminton World Federation; (Formerly: International Badminton Federation); www.bissc.org.
- 50. CDA Copper Development Association; www.copper.org.
- 51. CE Conformite Europeenne; http://ec.europa.eu/growth/single-market/ce-marking.
- 52. CEA Canadian Electricity Association; www.electricity.ca.
- 53. CFFA Chemical Fabrics and Film Association, Inc.; www.chemicalfabricsandfilm.com.
- 54. CFSEI Cold-Formed Steel Engineers Institute; www.cfsei.org.
- 55. CGA Compressed Gas Association; www.cganet.com.
- 56. CIMA Cellulose Insulation Manufacturers Association; www.cellulose.org.
- 57. CISCA Ceilings & Interior Systems Construction Association; www.cisca.org.
- 58. CISPI Cast Iron Soil Pipe Institute; www.cispi.org.
- 59. CLFMI Chain Link Fence Manufacturers Institute; www.chainlinkinfo.org.
- 60. CPA Composite Panel Association; www.compositepanel.org.
- 61. CRI Carpet and Rug Institute (The); www.carpet-rug.org.
- 62. CRRC Cool Roof Rating Council; www.coolroofs.org.
- 63. CRSI Concrete Reinforcing Steel Institute; www.crsi.org.
- 64. CSA CSA Group; www.csa-group.org.
- 65. CSI Construction Specifications Institute (The); www.csiresources.org.
- 66. CSSB Cedar Shake & Shingle Bureau; www.cedarbureau.org.
- 67. CTA Consumer Technology Association; www.cta.tech.
- 68. CTI Cooling Technology Institute; (Formerly: Cooling Tower Institute); www.coolingtechnology.org.
- 69. CWC Composite Wood Council; (See CPA).
- 70. DASMA Door and Access Systems Manufacturers Association; www.dasma.com.

- 71. DHA Decorative Hardwoods Association; (Formerly: Hardwood Plywood & Veneer Association); www.decorativehardwoods.org.
- 72. DHI Door and Hardware Institute; www.dhi.org.
- 73. ECA Electronic Components Association; (See ECIA).
- 74. ECAMA Electronic Components Assemblies & Materials Association; (See ECIA).
- 75. ECIA Electronic Components Industry Association; www.ecianow.org.
- 76. EIA Electronic Industries Alliance; (See TIA).
- 77. EIMA EIFS Industry Members Association; www.eima.com.
- 78. EJMA Expansion Joint Manufacturers Association, Inc.; www.ejma.org.
- 79. EOS/ESD Association; (Electrostatic Discharge Association); www.esda.org.
- 80. ESTA Entertainment Services and Technology Association; (See PLASA).
- 81. ETL Intertek (See Intertek); www.intertek.com.
- 82. EVO Efficiency Valuation Organization; www.evo-world.org.
- 83. FCI Fluid Controls Institute; www.fluidcontrolsinstitute.org.
- 84. FIBA Federation Internationale de Basketball; (The International Basketball Federation); www.fiba.com.
- 85. FIVB Federation Internationale de Volleyball; (The International Volleyball Federation); www.fivb.org.
- 86. FM Approvals FM Approvals LLC; www.fmglobal.com.
- 87. FM Global FM Global; (Formerly: FMG FM Global); www.fmglobal.com.
- 88. FRSA Florida Roofing, Sheet Metal Contractors Association, Inc.; www.floridaroof.com.
- 89. FSA Fluid Sealing Association; www.fluidsealing.com.
- 90. FSC Forest Stewardship Council U.S.; www.fscus.org.
- 91. GA Gypsum Association; www.gypsum.org.
- 92. GANA Glass Association of North America; (See NGA).
- 93. GS Green Seal; www.greenseal.org.
- 94. HI Hydraulic Institute; www.pumps.org.
- 95. HI/GAMA Hydronics Institute/Gas Appliance Manufacturers Association; (See AHRI).
- 96. HMMA Hollow Metal Manufacturers Association; (See NAAMM).
- 97. HPVA Hardwood Plywood & Veneer Association; (See DHA).
- 98. HPW H. P. White Laboratory, Inc.; www.hpwhite.com.
- 99. IAPSC International Association of Professional Security Consultants; www.iapsc.org.
- 100. IAS International Accreditation Service; www.iasonline.org.
- 101. ICBO International Conference of Building Officials; (See ICC).
- 102. ICC International Code Council; www.iccsafe.org.
- 103. ICEA Insulated Cable Engineers Association, Inc.; www.icea.net.
- 104. ICPA International Cast Polymer Association; www.theicpa.com.
- 105. ICRI International Concrete Repair Institute, Inc.; www.icri.org.
- 106. IEC International Electrotechnical Commission; www.iec.ch.
- 107. IEEE Institute of Electrical and Electronics Engineers, Inc. (The); www.ieee.org.
- 108. IES Illuminating Engineering Society; (Formerly: Illuminating Engineering Society of North America); www.ies.org.
- 109. IESNA Illuminating Engineering Society of North America; (See IES).
- 110. IEST Institute of Environmental Sciences and Technology; www.iest.org.
- 111. IGMA Insulating Glass Manufacturers Alliance; www.igmaonline.org.
- 112. IGSHPA International Ground Source Heat Pump Association; www.igshpa.org.
- 113. II Infocomm International; (See AVIXA).
- 114. ILI Indiana Limestone Institute of America, Inc.; www.iliai.com.
- 115. Intertek Intertek Group; (Formerly: ETL SEMCO; Intertek Testing Service NA); www.intertek.com.

- 116. ISA International Society of Automation (The); (Formerly: Instrumentation, Systems, and Automation Society); www.isa.org.
- 117. ISAS Instrumentation, Systems, and Automation Society (The); (See ISA).
- 118. ISFA International Surface Fabricators Association; (Formerly: International Solid Surface Fabricators Association); www.isfanow.org.
- 119. ISO International Organization for Standardization; www.iso.org.
- 120. ISSFA International Solid Surface Fabricators Association; (See ISFA).
- 121. ITU International Telecommunication Union; www.itu.int.
- 122. KCMA Kitchen Cabinet Manufacturers Association; www.kcma.org.
- 123. LMA Laminating Materials Association; (See CPA).
- 124. LPI Lightning Protection Institute; www.lightning.org.
- 125. MBMA Metal Building Manufacturers Association; www.mbma.com.
- 126. MCA Metal Construction Association; www.metalconstruction.org.
- 127. MFMA Maple Flooring Manufacturers Association, Inc.; www.maplefloor.org.
- 128. MFMA Metal Framing Manufacturers Association, Inc.; www.metalframingmfg.org.
- 129. MHIA Material Handling Industry of America; www.mhia.org.
- 130. MIA Marble Institute of America; (See NSI).
- 131. MMPA Moulding & Millwork Producers Association; www.wmmpa.com.
- 132. MPI Master Painters Institute; www.paintinfo.com.
- 133. MSS Manufacturers Standardization Society of The Valve and Fittings Industry Inc.; www.mss-hq.org.
- 134. NAAMM National Association of Architectural Metal Manufacturers; www.naamm.org.
- 135. NACE NACE International; (National Association of Corrosion Engineers International); www.nace.org.
- 136. NADCA National Air Duct Cleaners Association; www.nadca.com.
- 137. NAIMA North American Insulation Manufacturers Association; www.naima.org.
- 138. NALP National Association of Landscape Professionals; www.landscapeprofessionals.org.
- 139. NBGQA National Building Granite Quarries Association, Inc.; www.nbgqa.com.
- 140. NBI New Buildings Institute; www.newbuildings.org.
- 141. NCAA National Collegiate Athletic Association (The); www.ncaa.org.
- 142. NCMA National Concrete Masonry Association; www.ncma.org.
- 143. NEBB National Environmental Balancing Bureau; www.nebb.org.
- 144. NECA National Electrical Contractors Association; www.necanet.org.
- 145. NeLMA Northeastern Lumber Manufacturers Association; www.nelma.org.
- 146. NEMA National Electrical Manufacturers Association; www.nema.org.
- 147. NETA InterNational Electrical Testing Association; www.netaworld.org.
- 148. NFHS National Federation of State High School Associations; www.nfhs.org.
- 149. NFPA National Fire Protection Association; www.nfpa.org.
- 150. NFPA NFPA International; (See NFPA).
- 151. NFRC National Fenestration Rating Council; www.nfrc.org.
- 152. NGA National Glass Association (The); (Formerly: Glass Association of North America); www.glass.org.
- 153. NHLA National Hardwood Lumber Association; www.nhla.com.
- 154. NLGA National Lumber Grades Authority; www.nlga.org.
- 155. NOFMA National Oak Flooring Manufacturers Association; (See NWFA).
- 156. NOMMA National Ornamental & Miscellaneous Metals Association; www.nomma.org.
- 157. NRCA National Roofing Contractors Association; www.nrca.net.
- 158. NRMCA National Ready Mixed Concrete Association; www.nrmca.org.
- 159. NSF NSF International; www.nsf.org.

- 160. NSI National Stone Institute; (Formerly: Marble Institute of America); www.naturalstoneinstitute.org.
- 161. NSPE National Society of Professional Engineers; www.nspe.org.
- 162. NSSGA National Stone, Sand & Gravel Association; www.nssga.org.
- 163. NTMA National Terrazzo & Mosaic Association, Inc. (The); www.ntma.com.
- 164. NWFA National Wood Flooring Association; www.nwfa.org.
- 165. NWRA National Waste & Recycling Association; www.wasterecycling.org.
- 166. PCI Precast/Prestressed Concrete Institute; www.pci.org.
- 167. PDI Plumbing & Drainage Institute; www.pdionline.org.
- 168. PLASA PLASA; (Formerly: ESTA Entertainment Services and Technology Association); www.plasa.org.
- 169. RCSC Research Council on Structural Connections; www.boltcouncil.org.
- 170. RFCI Resilient Floor Covering Institute; www.rfci.com.
- 171. RIS Redwood Inspection Service; www.redwoodinspection.com.
- 172. SAE SAE International; www.sae.org.
- 173. SCTE Society of Cable Telecommunications Engineers; www.scte.org.
- 174. SDI Steel Deck Institute; www.sdi.org.
- 175. SDI Steel Door Institute; www.steeldoor.org.
- 176. SEFA Scientific Equipment and Furniture Association (The); www.sefalabs.com.
- 177. SEI/ASCE Structural Engineering Institute/American Society of Civil Engineers; (See ASCE).
- 178. SIA Security Industry Association; www.siaonline.org.
- 179. SJI Steel Joist Institute; www.steeljoist.org.
- 180. SMA Screen Manufacturers Association; www.smainfo.org.
- 181. SMACNA Sheet Metal and Air Conditioning Contractors' National Association; www.smacna.org.
- 182. SMPTE Society of Motion Picture and Television Engineers; www.smpte.org.
- 183. SPFA Spray Polyurethane Foam Alliance; www.sprayfoam.org.
- 184. SPIB Southern Pine Inspection Bureau; www.spib.org.
- 185. SPRI Single Ply Roofing Industry; www.spri.org.
- 186. SRCC Solar Rating & Certification Corporation; www.solar-rating.org.
- 187. SSINA Specialty Steel Industry of North America; www.ssina.com.
- 188. SSPC SSPC: The Society for Protective Coatings; www.sspc.org.
- 189. STI Steel Tank Institute; www.steeltank.com.
- 190. SWI Steel Window Institute; www.steelwindows.com.
- 191. SWPA Submersible Wastewater Pump Association; www.swpa.org.
- 192. TCA Tilt-Up Concrete Association; www.tilt-up.org.
- 193. TCNA Tile Council of North America, Inc.; www.tileusa.com.
- 194. TEMA Tubular Exchanger Manufacturers Association, Inc.; www.tema.org.
- 195. TIA Telecommunications Industry Association (The); (Formerly: TIA/EIA Telecommunications Industry Association/Electronic Industries Alliance); www.tiaonline.org.
- 196. TIA/EIA Telecommunications Industry Association/Electronic Industries Alliance; (See TIA).
- 197. TMS The Masonry Society; www.masonrysociety.org.
- 198. TPI Truss Plate Institute; www.tpinst.org.
- 199. TPI Turfgrass Producers International; www.turfgrasssod.org.
- 200. TRI Tile Roofing Institute; www.tileroofing.org.
- 201. UL Underwriters Laboratories Inc.; www.ul.com.
- 202. UNI Uni-Bell PVC Pipe Association; www.uni-bell.org.

- 203. USAV USA Volleyball; www.usavolleyball.org.
- 204. USGBC U.S. Green Building Council; www.usgbc.org.
- 205. USITT United States Institute for Theatre Technology, Inc.; www.usitt.org.
- 206. WA Wallcoverings Association; www.wallcoverings.org.
- 207. WCLIB West Coast Lumber Inspection Bureau; www.wclib.org.
- 208. WCMA Window Covering Manufacturers Association; www.wcmanet.org.
- 209. WDMA Window & Door Manufacturers Association; www.wdma.com.
- 210. WI Woodwork Institute; www.wicnet.org.
- 211. WSRCA Western States Roofing Contractors Association; www.wsrca.com.
- 212. WWPA Western Wood Products Association; www.wwpa.org.
- B. Code Agencies: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the entities in the following list. This information is believed to be accurate as of the date of the Contract Documents.
 - 1. IAPMO International Association of Plumbing and Mechanical Officials; www.iapmo.org.
 - 2. ICC International Code Council; www.iccsafe.org.
 - 3. ICC-ES ICC Evaluation Service, LLC; www.icc-es.org.
- C. Federal Government Agencies: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the entities in the following list. Information is subject to change and is up to date as of the date of the Contract Documents.
 - 1. COE Army Corps of Engineers; www.usace.army.mil.
 - 2. CPSC Consumer Product Safety Commission; www.cpsc.gov.
 - 3. DOC Department of Commerce; National Institute of Standards and Technology; www.nist.gov.
 - 4. DOD Department of Defense; www.quicksearch.dla.mil.
 - 5. DOE Department of Energy; www.energy.gov.
 - 6. EPA Environmental Protection Agency; www.epa.gov.
 - 7. FAA Federal Aviation Administration; www.faa.gov.
 - 8. FG Federal Government Publications; www.gpo.gov/fdsys.
 - 9. GSA General Services Administration; www.gsa.gov.
 - 10. HUD Department of Housing and Urban Development; www.hud.gov.
 - 11. LBL Lawrence Berkeley National Laboratory; Environmental Energy Technologies Division; www.eetd.lbl.gov.
 - 12. OSHA Occupational Safety & Health Administration; www.osha.gov.
 - 13. SD Department of State; www.state.gov.
 - 14. TRB Transportation Research Board; National Cooperative Highway Research Program; The National Academies; www.trb.org.
 - 15. USDA Department of Agriculture; Agriculture Research Service; U.S. Salinity Laboratory; www.ars.usda.gov.
 - 16. USDA Department of Agriculture; Rural Utilities Service; www.usda.gov.
 - 17. USDOJ Department of Justice; Office of Justice Programs; National Institute of Justice; www.ojp.usdoj.gov.
 - 18. USP U.S. Pharmacopeial Convention; www.usp.org.
 - 19. USPS United States Postal Service; www.usps.com.

- D. Standards and Regulations: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the standards and regulations in the following list. This information is subject to change and is believed to be accurate as of the date of the Contract Documents.
 - 1. BCNYS Building Code of New York State, 2020 Edition
 - 2. CFR Code of Federal Regulations; Available from Government Printing Office; www.govinfo.gov.
 - 3. DOD Department of Defense; Military Specifications and Standards; Available from DLA Document Services; www.quicksearch.dla.mil.
 - 4. DSCC Defense Supply Center Columbus; (See FS).
 - 5. FED-STD Federal Standard; (See FS).
 - 6. FS Federal Specification; Available from DLA Document Services; www.quicksearch.dla.mil.
 - a. Available from Defense Standardization Program; www.dsp.dla.mil.
 - b. Available from General Services Administration; www.gsa.gov.
 - c. Available from National Institute of Building Sciences/Whole Building Design Guide; www.wbdg.org.
 - 7. MILSPEC Military Specification and Standards; (See DOD).
 - 8. USAB United States Access Board; www.access-board.gov.
 - 9. USATBCB U.S. Architectural & Transportation Barriers Compliance Board; (See USAB).

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 014200

SECTION 015000 - TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes requirements for temporary utilities, support facilities, and security and protection facilities.

B. Related Requirements:

1. Section 011000 "Summary" for work restrictions and limitations on utility interruptions.

1.2 USE CHARGES

A. Installation, removal, and use charges for temporary facilities shall be included in the Contract Sum unless otherwise indicated. Allow other entities engaged in the Project to use temporary services and facilities without cost, including, but not limited to, Owner's construction forces, Architect, testing agencies, and authorities having jurisdiction.

1.3 INFORMATIONAL SUBMITTALS

- A. Site Utilization Plan: Show temporary facilities, temporary utility lines and connections, staging areas, construction site entrances, vehicle circulation, and parking areas for construction personnel.
- B. Project Identification and Temporary Signs: Show fabrication and installation details, including plans, elevations, details, layouts, typestyles, graphic elements, and message content.
- C. Fire-Safety Program: Show compliance with requirements of NFPA 241 and authorities having jurisdiction. Indicate Contractor personnel responsible for management of fire-prevention program.
- D. Moisture- and Mold-Protection Plan: Describe procedures and controls for protecting materials and construction from water absorption and damage and mold. Describe delivery, handling, storage, installation, and protection provisions for materials subject to water absorption or water damage.
 - 1. Indicate procedures for discarding water-damaged materials, protocols for mitigating water intrusion into completed Work, and requirements for replacing water-damaged Work.
 - 2. Indicate sequencing of work that requires water, such as sprayed fire-resistive materials, plastering, and terrazzo grinding, and describe plans for dealing with water from these operations. Show procedures for verifying that wet construction has dried sufficiently to permit installation of finish materials.
 - 3. Indicate methods to be used to avoid trapping water in finished work.

1.4 QUALITY ASSURANCE

- A. Electric Service: Comply with NECA, NEMA, and UL standards and regulations for temporary electric service. Install service to comply with NFPA 70.
- B. Tests and Inspections: Arrange for authorities having jurisdiction to test and inspect each temporary utility before use. Obtain required certifications and permits.
- C. Accessible Temporary Egress: Comply with applicable provisions in the United States Access Board's ADA-ABA Accessibility Guidelines and ICC/ANSI A117.1.

1.5 PROJECT CONDITIONS

A. Temporary Use of Permanent Facilities: Engage Installer of each permanent service to assume responsibility for operation, maintenance, and protection of each permanent service during its use as a construction facility before Owner's acceptance, regardless of previously assigned responsibilities.

PART 2 - PRODUCTS

2.1 TEMPORARY FACILITIES

A. Field Offices: Prefabricated or mobile units with serviceable finishes, temperature controls, and foundations adequate for normal loading.

2.2 EQUIPMENT

- A. Fire Extinguishers: Portable, UL rated; with class and extinguishing agent as required by locations and classes of fire exposures.
- B. HVAC Equipment: Unless Owner authorizes use of permanent HVAC system, provide vented, self-contained, liquid-propane-gas or fuel-oil heaters with individual space thermostatic control.
 - 1. Use of gasoline-burning space heaters, open-flame heaters, or salamander-type heating units is prohibited.
 - 2. Heating, Cooling, and Dehumidifying Units: Listed and labeled for type of fuel being consumed, by a qualified testing agency acceptable to authorities having jurisdiction, and marked for intended location and application.
 - 3. Permanent HVAC System: If Owner authorizes use of permanent HVAC system for temporary use during construction, provide filter with MERV of 8 or higher at each returnair grille in system and remove at end of construction and clean HVAC system as required in Section 017700 "Closeout Procedures."
- C. Air-Filtration Units: Primary and secondary HEPA-filter-equipped portable units with four-stage filtration. Provide single switch for emergency shutoff. Configure to run continuously.

PART 3 - EXECUTION

3.1 TEMPORARY FACILITIES, GENERAL

- A. Conservation: Coordinate construction and use of temporary facilities with consideration given to conservation of energy, water, and materials. Coordinate use of temporary utilities to minimize waste.
 - 1. Salvage materials and equipment involved in performance of, but not actually incorporated into, the Work. See other Sections for disposition of salvaged materials that are designated as Owner's property.

3.2 INSTALLATION, GENERAL

- A. Locate facilities where they will serve Project adequately and result in minimum interference with performance of the Work. Relocate and modify facilities as required by progress of the Work.
- B. Provide each facility ready for use when needed to avoid delay. Do not remove until facilities are no longer needed or are replaced by authorized use of completed permanent facilities.
- C. Isolation of Work Areas in Occupied Facilities: Prevent dust, fumes, and odors from entering occupied areas.

3.3 TEMPORARY UTILITY INSTALLATION

- A. General: Install temporary service or connect to existing service.
 - 1. Arrange with utility company, Owner, and existing users for time when service can be interrupted, if necessary, to make connections for temporary services.
- B. Sewers and Drainage: Provide temporary utilities to remove effluent lawfully.
 - 1. Connect temporary sewers to municipal system as directed by authorities having jurisdiction.
- C. Water Service: Install water service and distribution piping in sizes and pressures adequate for construction.
- D. Sanitary Facilities: Provide temporary toilets, wash facilities, safety shower and eyewash facilities, and drinking water for use of construction personnel. Comply with requirements of authorities having jurisdiction for type, number, location, operation, and maintenance of fixtures and facilities.
- E. Temporary Heating and Cooling: Provide temporary heating and cooling required by construction activities for curing or drying of completed installations or for protecting installed construction from adverse effects of low temperatures or high humidity. Select equipment that will not have a harmful effect on completed installations or elements being installed.

- 1. Provide temporary dehumidification systems when required to reduce ambient and substrate moisture levels to level required to allow installation or application of finishes and their proper curing or drying.
- F. Electric Power Service: Provide electric power service and distribution system of sufficient size, capacity, and power characteristics required for construction operations.
 - 1. Install electric power service overhead unless otherwise indicated.
- G. Lighting: Provide temporary lighting with local switching that provides adequate illumination for construction operations, observations, inspections, and traffic conditions.
 - 1. Install and operate temporary lighting that fulfills security and protection requirements without operating entire system.
- H. Telephone Service: Coordinate with Construction Manager for temporary telephone service for use by construction personnel. Construction Manager will provide telephone service in the field office for access by Architect and Owner as required.
- I. Electronic Communication Service: Coordinate with Construction Manager for temporary communication service for use by construction personnel. Construction Manager will provide WiFi service in the field office for access by Architect and Owner as required.

3.4 SUPPORT FACILITIES INSTALLATION

- A. Comply with the following:
 - 1. Provide construction for temporary field offices, shops, and sheds located within construction area or within 30 feet (9 m) of building lines that is noncombustible according to ASTM E136. Comply with NFPA 241.
 - 2. Utilize designated area within existing building for temporary field offices.
 - 3. Maintain support facilities until Architect schedules Substantial Completion inspection. Remove before Substantial Completion. Personnel remaining after Substantial Completion will be permitted to use permanent facilities, under conditions acceptable to Owner.
- B. Temporary Roads and Paved Areas: Construct and maintain temporary roads and paved areas adequate for construction operations. Locate temporary roads and paved areas within construction limits indicated on Drawings.
 - 1. Provide dust-control treatment that is nonpolluting and nontracking. Reapply treatment as required to minimize dust.
- C. Traffic Controls: Comply with requirements of authorities having jurisdiction.
 - 1. Protect existing site improvements to remain including curbs, pavement, and utilities.
 - 2. Maintain access for fire-fighting equipment and access to fire hydrants.
- D. Parking: Use designated areas of Owner's existing parking areas for construction personnel.

- E. Storage and Staging: Use designated areas of Project site for storage and staging needs.
- F. Dewatering Facilities and Drains: Comply with requirements of authorities having jurisdiction. Maintain Project site, excavations, and construction free of water.
 - 1. Dispose of rainwater in a lawful manner that will not result in flooding Project or adjoining properties or endanger permanent Work or temporary facilities.
 - 2. Remove snow and ice as required to minimize accumulations.
- G. Project Signs: Provide Project signs as indicated. Unauthorized signs are not permitted.
 - 1. Identification Signs: Provide Project identification signs as indicated on Drawings.
 - 2. Temporary Signs: Provide other signs as indicated and as required to inform public and individuals seeking entrance to Project.
 - a. Provide temporary, directional signs for construction personnel and visitors.
 - 3. Maintain and touch up signs so they are legible at all times.
- H. Waste Disposal Facilities: Comply with requirements specified in Section 017419 "Construction Waste Management and Disposal."
- I. Lifts and Hoists: Provide facilities necessary for hoisting materials and personnel.
 - 1. Truck cranes and similar devices used for hoisting materials are considered "tools and equipment" and not temporary facilities.
- J. Temporary Stairs: Until permanent stairs are available, provide temporary stairs where ladders are not adequate.
- K. Existing Stair Usage: Use of Owner's existing stairs will be permitted, provided stairs are cleaned and maintained in a condition acceptable to Owner. At Substantial Completion, restore stairs to condition existing before initial use.
 - 1. Provide protective coverings, barriers, devices, signs, or other procedures to protect stairs and to maintain means of egress. If stairs become damaged, restore damaged areas so no evidence remains of correction work.
- L. Temporary Use of Permanent Stairs: Use of new stairs for construction traffic will be permitted, provided stairs are protected and finishes restored to new condition at time of Substantial Completion.

3.5 SECURITY AND PROTECTION FACILITIES INSTALLATION

A. Protection of Existing Facilities: Protect existing vegetation, equipment, structures, utilities, and other improvements at Project site and on adjacent properties, except those indicated to be removed or altered. Repair damage to existing facilities.

- 1. Where access to adjacent properties is required in order to affect protection of existing facilities, obtain written permission from adjacent property owner to access property for that purpose.
- B. Environmental Protection: Provide protection, operate temporary facilities, and conduct construction as required to comply with environmental regulations and that minimize possible air, waterway, and subsoil contamination or pollution or other undesirable effects.
- C. Temporary Erosion and Sedimentation Control: Provide measures to prevent soil erosion and discharge of soil-bearing water runoff and airborne dust to undisturbed areas and to adjacent properties and walkways, according to requirements of EPA Construction General Permit or authorities having jurisdiction, whichever is more stringent.
 - 1. Verify that flows of water redirected from construction areas or generated by construction activity do not enter or cross tree- or plant-protection zones.
 - 2. Inspect, repair, and maintain erosion- and sedimentation-control measures during construction until permanent vegetation has been established.
 - 3. Clean, repair, and restore adjoining properties and roads affected by erosion and sedimentation from Project site during the course of Project.
 - 4. Remove erosion and sedimentation controls and restore and stabilize areas disturbed during removal.
- D. Stormwater Control: Comply with requirements of authorities having jurisdiction. Provide barriers in and around excavations and subgrade construction to prevent flooding by runoff of stormwater from heavy rains.
- E. Tree and Plant Protection: Install temporary fencing located as indicated or outside the drip line of trees to protect vegetation from damage from construction operations. Protect tree root systems from damage, flooding, and erosion.
- F. Pest Control: Engage pest-control service to recommend practices to minimize attraction and harboring of rodents, roaches, and other pests and to perform extermination and control procedures at regular intervals so Project will be free of pests and their residues at Substantial Completion. Perform control operations lawfully, using materials approved by authorities having jurisdiction.
- G. Site Enclosure Fence: Before construction operations begin, furnish and install site enclosure fence in a manner that will prevent people from easily entering site except by entrance gates.
 - 1. Extent of Fence: As indicated on Drawings.
 - 2. Maintain security by limiting number of keys and restricting distribution to authorized personnel. Furnish one set of keys to Owner.
- H. Security Enclosure and Lockup: Install temporary enclosure around partially completed areas of construction. Provide lockable entrances to prevent unauthorized entrance, vandalism, theft, and similar violations of security. Lock entrances at end of each workday.
- I. Barricades, Warning Signs, and Lights: Comply with requirements of authorities having jurisdiction for erecting structurally adequate barricades, including warning signs and lighting.

- J. Temporary Egress: Provide temporary egress from existing occupied facilities as indicated and as required by authorities having jurisdiction. Provide signage directing occupants to temporary egress.
- K. Temporary Enclosures: Provide temporary enclosures for protection of construction, in progress and completed, from exposure, foul weather, other construction operations, and similar activities. Provide temporary weathertight enclosure for building exterior.
 - 1. Where heating or cooling is needed and permanent enclosure is incomplete, insulate temporary enclosures.
- L. Temporary Fire Protection: Install and maintain temporary fire-protection facilities of types needed to protect against reasonably predictable and controllable fire losses. Comply with NFPA 241; manage fire-prevention program.
 - 1. Prohibit smoking in construction areas. Comply with additional limits on smoking specified in other Sections.
 - 2. Supervise welding operations, combustion-type temporary heating units, and similar sources of fire ignition according to requirements of authorities having jurisdiction.
 - 3. Develop and supervise an overall fire-prevention and -protection program for personnel at Project site. Review needs with local fire department and establish procedures to be followed. Instruct personnel in methods and procedures. Post warnings and information.
 - 4. Provide temporary standpipes and hoses for fire protection. Hang hoses with a warning sign stating that hoses are for fire-protection purposes only and are not to be removed. Match hose size with outlet size and equip with suitable nozzles.

3.6 MOISTURE AND MOLD CONTROL

- A. Moisture and Mold Protection: Protect stored materials and installed Work in accordance with Moisture and Mold Protection Plan.
- B. Exposed Construction Period: Before installation of weather barriers, when materials are subject to wetting and exposure and to airborne mold spores, protect as follows:
 - 1. Protect porous materials from water damage.
 - 2. Protect stored and installed material from flowing or standing water.
 - 3. Keep porous and organic materials from coming into prolonged contact with concrete.
 - 4. Remove standing water from decks.
 - 5. Keep deck openings covered or dammed.
- C. Partially Enclosed Construction Period: After installation of weather barriers but before full enclosure and conditioning of building, when installed materials are still subject to infiltration of moisture and ambient mold spores, protect as follows:
 - 1. Do not load or install drywall or other porous materials or components, or items with high organic content, into partially enclosed building.
 - 2. Keep interior spaces reasonably clean and protected from water damage.
 - 3. Periodically collect and remove waste containing cellulose or other organic matter.
 - 4. Discard or replace water-damaged material.

- 5. Do not install material that is wet.
- 6. Discard and replace stored or installed material that begins to grow mold.
- 7. Perform work in a sequence that allows wet materials adequate time to dry before enclosing the material in gypsum board or other interior finishes.
- D. Controlled Construction Period: After completing and sealing of the building enclosure but prior to the full operation of permanent HVAC systems, maintain as follows:
 - 1. Control moisture and humidity inside building by maintaining effective dry-in conditions.
 - 2. Use temporary or permanent HVAC system to control humidity within ranges specified for installed and stored materials.
 - 3. Comply with manufacturer's written instructions for temperature, relative humidity, and exposure to water limits.

3.7 OPERATION, TERMINATION, AND REMOVAL

- A. Supervision: Enforce strict discipline in use of temporary facilities. To minimize waste and abuse, limit availability of temporary facilities to essential and intended uses.
- B. Maintenance: Maintain facilities in good operating condition until removal.
 - 1. Maintain operation of temporary enclosures, heating, cooling, humidity control, ventilation, and similar facilities on a 24-hour basis where required to achieve indicated results and to avoid possibility of damage.
- C. Temporary Facility Changeover: Do not change over from using temporary security and protection facilities to permanent facilities until Substantial Completion.
- D. Termination and Removal: Remove each temporary facility when need for its service has ended, when it has been replaced by authorized use of a permanent facility, or no later than Substantial Completion. Complete or, if necessary, restore permanent construction that may have been delayed because of interference with temporary facility. Repair damaged Work, clean exposed surfaces, and replace construction that cannot be satisfactorily repaired.
 - 1. Materials and facilities that constitute temporary facilities are property of Contractor. Owner reserves right to take possession of Project identification signs.
 - 2. At Substantial Completion, repair, renovate, and clean permanent facilities used during construction period. Comply with final cleaning requirements specified in Section 017700 "Closeout Procedures."

END OF SECTION 015000

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SECTION 016000 - PRODUCT REQUIREMENTS

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes administrative and procedural requirements for selection of products for use in Project; product delivery, storage, and handling; manufacturers' standard warranties on products; special warranties; and comparable products.

B. Related Requirements:

1. Section 012500 "Substitution Procedures" for requests for substitutions.

1.2 DEFINITIONS

- A. Products: Items obtained for incorporating into the Work, whether purchased for Project or taken from previously purchased stock. The term "product" includes the terms "material," "equipment," "system," and terms of similar intent.
 - 1. Named Products: Items identified by manufacturer's product name, including make or model number or other designation shown or listed in manufacturer's published product literature that is current as of date of the Contract Documents.
 - 2. New Products: Items that have not previously been incorporated into another project or facility. Salvaged items or items reused from other projects are not considered new products. Items that are manufactured or fabricated to include recycled content materials are considered new products, unless indicated otherwise.
 - 3. Comparable Product: Product by named manufacturer that is demonstrated and approved through the comparable product submittal process described in Part 2 "Comparable Products" Article, to have the indicated qualities related to type, function, dimension, inservice performance, physical properties, appearance, and other characteristics that equal or exceed those of specified product.
- B. Basis-of-Design Product Specification: A specification in which a single manufacturer's product is named and accompanied by the words "basis-of-design product," including make or model number or other designation. Published attributes and characteristics of basis-of-design product establish salient characteristics of products.
 - 1. Evaluation of Comparable Products: In addition to the basis-of-design product description, product attributes and characteristics may be listed to establish the significant qualities related to type, function, in-service performance and physical properties, weight, dimension, durability, visual characteristics, and other special features and requirements for purposes of evaluating comparable products of additional manufacturers named in the specification. Manufacturer's published attributes and characteristics of basis-of-design product also establish salient characteristics of products for purposes of evaluating comparable products.

- C. Subject to Compliance with Requirements: Where the phrase "Subject to compliance with requirements" introduces a product selection procedure in an individual Specification Section, provide products qualified under the specified product procedure. In the event that a named product or product by a named manufacturer does not meet the other requirements of the specifications, select another named product or product from another named manufacturer that does meet the requirements of the specifications; submit a comparable product request or substitution request, if applicable.
- D. Comparable Product Request Submittal: An action submittal requesting consideration of a comparable product, including the following information:
 - 1. Identification of basis-of-design product or fabrication or installation method to be replaced, including Specification Section number and title and Drawing numbers and titles.
 - 2. Data indicating compliance with the requirements specified in Part 2 "Comparable Products" Article.
- E. Basis-of-Design Product Specification Submittal: An action submittal complying with requirements in Section 013300 "Submittal Procedures."
- F. Substitution: Refer to Section 012500 "Substitution Procedures" for definition and limitations on substitutions.

1.3 QUALITY ASSURANCE

A. Compatibility of Options: If Contractor is given option of selecting between two or more products for use on Project, select product compatible with products previously selected, even if previously selected products were also options.

1.4 PRODUCT DELIVERY, STORAGE, AND HANDLING

A. Deliver, store, and handle products, using means and methods that will prevent damage, deterioration, and loss, including theft and vandalism. Comply with manufacturer's written instructions.

1.5 PRODUCT WARRANTIES

- A. Warranties specified in other Sections shall be in addition to, and run concurrent with, other warranties required by the Contract Documents. Manufacturer's disclaimers and limitations on product warranties do not relieve Contractor of obligations under requirements of the Contract Documents.
 - 1. Manufacturer's Warranty: Written standard warranty form furnished by individual manufacturer for a particular product and issued in the name of the Owner or endorsed by manufacturer to Owner.
 - 2. Special Warranty: Written warranty required by the Contract Documents to provide specific rights for Owner and issued in the name of the Owner or endorsed by manufacturer to Owner.

PART 2 - PRODUCTS

2.1 PRODUCT SELECTION PROCEDURES

- A. General Product Requirements: Provide products that comply with the Contract Documents, are undamaged and, unless otherwise indicated, are new at time of installation.
 - 1. Provide products complete with accessories, trim, finish, fasteners, and other items needed for a complete installation and indicated use and effect.
 - 2. Standard Products: If available, and unless custom products or nonstandard options are specified, provide standard products of types that have been produced and used successfully in similar situations on other projects.
 - 3. Owner reserves the right to limit selection to products with warranties meeting requirements of the Contract Documents.
 - 4. Where products are accompanied by the term "as selected," Architect will make selection.
 - 5. Descriptive, performance, and reference standard requirements in the Specifications establish salient characteristics of products.

B. Product Selection Procedures:

- 1. Limited List of Products: Where Specifications include a list of names of both manufacturers and products, provide one of the products listed that complies with requirements. Comparable products or substitutions for Contractor's convenience will be considered.
 - a. Limited list of products may be indicated by the phrase "Subject to compliance with requirements, provide one of the following."
- 2. Non-Limited List of Products: Where Specifications include a list of names of both available manufacturers and products, provide one of the products listed or an unnamed product that complies with requirements.
 - a. Non-limited list of products is indicated by the phrase "Subject to compliance with requirements, available products that may be incorporated in the Work include, but are not limited to, the following."
 - b. Provision of an unnamed product is not considered a substitution, if the product complies with requirements.
- 3. Limited List of Manufacturers: Where Specifications include a list of manufacturers' names, provide a product by one of the manufacturers listed that complies with requirements. Comparable products or substitutions for Contractor's convenience will be considered.
 - a. Limited list of manufacturers is indicated by the phrase "Subject to compliance with requirements, provide products by one of the following."

- 4. Non-Limited List of Manufacturers: Where Specifications include a list of available manufacturers, provide a product by one of the manufacturers listed or a product by an unnamed manufacturer that complies with requirements.
 - a. Non-limited list of manufacturers is indicated by the phrase "Subject to compliance with requirements, available manufacturers whose products may be incorporated in the Work include, but are not limited to, the following."
 - b. Provision of products of an unnamed manufacturer is not considered a substitution, if the product complies with requirements.
- 5. Basis-of-Design Product: Where Specifications name a product, or refer to a product indicated on Drawings, and include a list of manufacturers, provide the specified or indicated product or a comparable product by one of the other named manufacturers. Drawings and Specifications may additionally indicate sizes, profiles, dimensions, and other characteristics that are based on the product named. Comply with requirements in "Comparable Products" Article for consideration of an unnamed product by one of the other named manufacturers.
 - a. For approval of products by unnamed manufacturers, comply with requirements in Section 012500 "Substitution Procedures" for substitutions for convenience.
- C. Visual Matching Specification: Where Specifications require the phrase "match Architect's sample," provide a product that complies with requirements and matches Architect's sample. Architect's decision will be final on whether a proposed product matches.
 - 1. If no product available within specified category matches and complies with other specified requirements, comply with requirements in Section 012500 "Substitution Procedures" for proposal of product.
- D. Visual Selection Specification: Where Specifications include the phrase "as selected by Architect from manufacturer's full range" or a similar phrase, select a product that complies with requirements. Architect will select color, gloss, pattern, density, or texture from manufacturer's product line that includes both standard and premium items.

2.2 COMPARABLE PRODUCTS

- A. Conditions for Consideration of Comparable Products: Architect will consider Contractor's request for comparable product when the following conditions are satisfied. If the following conditions are not satisfied, Architect may return requests without action, except to record noncompliance with the following requirements:
 - 1. Evidence that proposed product does not require revisions to the Contract Documents, is consistent with the Contract Documents, will produce the indicated results, and is compatible with other portions of the Work.
 - 2. Detailed comparison of significant qualities of proposed product with those of the named basis-of-design product. Significant product qualities include attributes, such as type, function, in-service performance and physical properties, weight, dimension, durability, visual characteristics, and other specific features and requirements.

- 3. Evidence that proposed product provides specified warranty.
- 4. List of similar installations for completed projects, with project names and addresses and names and addresses of architects and owners, if requested.
- 5. Samples, if requested.
- B. Architect's Action on Comparable Products Submittal: If necessary, Architect will request additional information or documentation for evaluation, as specified in Section 013300 "Submittal Procedures."
 - 1. Form of Approval of Submittal: As specified in Section 013300 "Submittal Procedures."
 - 2. Use product specified if Architect does not issue a decision on use of a comparable product request within time allocated.
- C. Submittal Requirements, Single-Step Process: When acceptable to Architect, incorporate specified submittal requirements of individual Specification Section in combined submittal for comparable products. Approval by the Architect of Contractor's request for use of comparable product and of individual submittal requirements will also satisfy other submittal requirements.

PART 3 - EXECUTION (Not Used)

END OF SECTION 016000

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SECTION 017300 - EXECUTION

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes general administrative and procedural requirements governing execution of the Work, including, but not limited to, the following:
 - 1. Construction layout.
 - 2. Field engineering and surveying.
 - 3. Installation of the Work.
 - 4. Cutting and patching.
 - 5. Progress cleaning.
 - 6. Starting and adjusting.
 - 7. Protection of installed construction.

B. Related Requirements:

- 1. Section 011000 "Summary" for coordination of Owner-furnished products, Owner's separate contracts, and limits on use of Project site.
- 2. Section 017700 "Closeout Procedures" for submitting final property survey with Project Record Documents, recording of Owner-accepted deviations from indicated lines and levels, replacing defective work, and final cleaning.

1.2 DEFINITIONS

- A. Cutting: Removal of in-place construction necessary to permit installation or performance of subsequent work.
- B. Patching: Fitting and repair work required to restore construction to original conditions after installation of subsequent work.

1.3 INFORMATIONAL SUBMITTALS

- A. Certified Surveys: Submit two copies signed by land surveyor or professional engineer.
- B. Certificates: Submit certificate signed by land surveyor or professional engineer, certifying that location and elevation of improvements comply with requirements.

1.4 CLOSEOUT SUBMITTALS

A. Final Property Survey: Submit 10 copies showing the Work performed and record survey data.

1.5 QUALITY ASSURANCE

- A. Land Surveyor Qualifications: A professional land surveyor who is legally qualified to practice in jurisdiction where Project is located and who is experienced in providing land-surveying services of the kind indicated.
- B. Cutting and Patching: Comply with requirements for and limitations on cutting and patching of construction elements.
 - 1. Structural Elements: When cutting and patching structural elements, or when encountering the need for cutting and patching of elements whose structural function is not known, notify Architect of locations and details of cutting and await directions from Architect before proceeding. Shore, brace, and support structural elements during cutting and patching. Do not cut and patch structural elements in a manner that could change their load-carrying capacity or increase deflection.
 - 2. Operational Elements: Do not cut and patch operating elements and related components in a manner that results in reducing their capacity to perform as intended or that results in increased maintenance or decreased operational life or safety.
 - 3. Other Construction Elements: Do not cut and patch other construction elements or components in a manner that could change their load-carrying capacity, that results in reducing their capacity to perform as intended, or that results in increased maintenance or decreased operational life or safety.
 - 4. Visual Elements: Do not cut and patch construction in a manner that results in visual evidence of cutting and patching. Do not cut and patch exposed construction in a manner that would, in Architect's opinion, reduce the building's aesthetic qualities. Remove and replace construction that has been cut and patched in a visually unsatisfactory manner.
- C. Manufacturer's Installation Instructions: Obtain and maintain on-site manufacturer's written recommendations and instructions for installation of specified products and equipment.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Comply with requirements specified in other Sections.
 - 1. For projects requiring compliance with sustainable design and construction practices and procedures, use products for patching that comply with sustainable design requirements.
- B. In-Place Materials: Use materials for patching identical to in-place materials. For exposed surfaces, use materials that visually match in-place adjacent surfaces to the fullest extent possible.
 - 1. If identical materials are unavailable or cannot be used, use materials that, when installed, will provide a match acceptable to Architect for the visual and functional performance of in-place materials. Use materials that are not considered hazardous.

- C. Cleaning Agents: Use cleaning materials and agents recommended by manufacturer or fabricator of the surface to be cleaned. Do not use cleaning agents that are potentially hazardous to health or property or that might damage finished surfaces.
 - 1. Use cleaning products that comply with Green Seal's GS-37, or if GS-37 is not applicable, use products that comply with the California Code of Regulations maximum allowable VOC levels.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Existing Conditions: The existence and location of underground and other utilities and construction indicated as existing are not guaranteed. Before beginning sitework, investigate and verify the existence and location of underground utilities, mechanical and electrical systems, and other construction affecting the Work.
 - 1. Before construction, verify the location and invert elevation at points of connection of sanitary sewer, storm sewer, gas service piping, and water-service piping; underground electrical services; and other utilities.
 - 2. Furnish location data for work related to Project that must be performed by public utilities serving Project site.
- B. Examination and Acceptance of Conditions: Before proceeding with each component of the Work, examine substrates, areas, and conditions, with Installer or Applicator present where indicated, for compliance with requirements for installation tolerances and other conditions affecting performance. Record observations.
 - 1. Examine roughing-in for mechanical and electrical systems to verify actual locations of connections before equipment and fixture installation.
 - 2. Examine walls, floors, and roofs for suitable conditions where products and systems are to be installed.
 - 3. Verify compatibility with and suitability of substrates, including compatibility with existing finishes or primers.
- C. Written Report: Where a written report listing conditions detrimental to performance of the Work is required by other Sections, include the following:
 - 1. Description of the Work, including Specification Section number and paragraph, and Drawing sheet number and detail, where applicable.
 - 2. List of detrimental conditions, including substrates.
 - 3. List of unacceptable installation tolerances.
 - 4. Recommended corrections.
- D. Proceed with installation only after unsatisfactory conditions have been corrected. Proceeding with the Work indicates acceptance of surfaces and conditions.

3.2 PREPARATION

- A. Existing Utility Information: Furnish information to Owner that is necessary to adjust, move, or relocate existing utility structures, utility poles, lines, services, or other utility appurtenances located in or affected by construction. Coordinate with authorities having jurisdiction.
- B. Field Measurements: Take field measurements as required to fit the Work properly. Recheck measurements before installing each product. Where portions of the Work are indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication. Coordinate fabrication schedule with construction progress to avoid delaying the Work.
- C. Space Requirements: Verify space requirements and dimensions of items shown diagrammatically on Drawings.
- D. Review of Contract Documents and Field Conditions: Immediately on discovery of the need for clarification of the Contract Documents, submit a request for information to Architect through Construction Manager in accordance with requirements in Section 013100 "Project Management and Coordination."

3.3 CONSTRUCTION LAYOUT

- A. Verification: Before proceeding to lay out the Work, verify layout information shown on Drawings, in relation to the property survey and existing benchmarks and existing conditions. If discrepancies are discovered, notify Architect and Construction Manager promptly.
- B. Engage a land surveyor or professional engineer experienced in laying out the Work, using the following accepted surveying practices:
 - 1. Establish benchmarks and control points to set lines and levels at each story of construction and elsewhere as needed to locate each element of Project.
 - 2. Establish limits on use of Project site.
 - 3. Establish dimensions within tolerances indicated. Do not scale Drawings to obtain required dimensions.
 - 4. Inform installers of lines and levels to which they must comply.
 - 5. Check the location, level and plumb, of every major element as the Work progresses.
 - 6. Notify Architect and Construction Manager when deviations from required lines and levels exceed allowable tolerances.
 - 7. Close site surveys with an error of closure equal to or less than the standard established by authorities having jurisdiction.
- C. Site Improvements: Locate and lay out site improvements, including pavements, grading, fill and topsoil placement, utility slopes, and rim and invert elevations.
- D. Building Lines and Levels: Locate and lay out control lines and levels for structures, building foundations, column grids, and floor levels, including those required for mechanical and electrical work. Transfer survey markings and elevations for use with control lines and levels. Level foundations and piers from two or more locations.

E. Record Log: Maintain a log of layout control work. Record deviations from required lines and levels. Include beginning and ending dates and times of surveys, weather conditions, name and duty of each survey party member, and types of instruments and tapes used. Make the log available for reference by Architect and Construction Manager.

3.4 FIELD ENGINEERING

- A. Identification: Owner will identify existing benchmarks, control points, and property corners.
- B. Reference Points: Locate existing permanent benchmarks, control points, and similar reference points before beginning the Work. Preserve and protect permanent benchmarks and control points during construction operations.
 - 1. Do not change or relocate existing benchmarks or control points without prior written approval of Architect or Construction Manager. Report lost or destroyed permanent benchmarks or control points promptly. Report the need to relocate permanent benchmarks or control points to Architect and Construction Manager before proceeding.
 - 2. Replace lost or destroyed permanent benchmarks and control points promptly. Base replacements on the original survey control points.
- C. Benchmarks: Establish and maintain a minimum of two permanent benchmarks on Project site, referenced to data established by survey control points. Comply with authorities having jurisdiction for type and size of benchmark.
 - 1. Record benchmark locations, with horizontal and vertical data, on Project Record Documents.
 - 2. Where the actual location or elevation of layout points cannot be marked, provide temporary reference points sufficient to locate the Work.
 - 3. Remove temporary reference points when no longer needed. Restore marked construction to its original condition.
- D. Certified Survey: On completion of foundation walls, major site improvements, and other work requiring field-engineering services, prepare a certified survey showing dimensions, locations, angles, and elevations of construction and sitework.
- E. Final Property Survey: Engage a land surveyor or professional engineer to prepare a final property survey showing significant features (real property) for Project. Include on the survey a certification, signed by land surveyor or professional engineer, that principal metes, bounds, lines, and levels of Project are accurately positioned as shown on the survey.
 - 1. Show boundary lines, monuments, streets, site improvements and utilities, existing improvements and significant vegetation, adjoining properties, acreage, grade contours, and the distance and bearing from a site corner to a legal point.

3.5 INSTALLATION

A. Locate the Work and components of the Work accurately, in correct alignment and elevation, as indicated.

- 1. Make vertical work plumb, and make horizontal work level.
- 2. Where space is limited, install components to maximize space available for maintenance and ease of removal for replacement.
- 3. Conceal pipes, ducts, and wiring in finished areas unless otherwise indicated.
- 4. Maintain minimum headroom clearance of 96 inches (2440 mm) in occupied spaces and 90 inches (2300 mm) in unoccupied spaces, unless otherwise indicated on Drawings.
- B. Comply with manufacturer's written instructions and recommendations for installing products in applications indicated.
- C. Install products at the time and under conditions that will ensure satisfactory results as judged by Architect. Maintain conditions required for product performance until Substantial Completion.
- D. Conduct construction operations, so no part of the Work is subjected to damaging operations or loading in excess of that expected during normal conditions of occupancy of type expected for Project.
- E. Sequence the Work and allow adequate clearances to accommodate movement of construction items on-site and placement in permanent locations.
- F. Tools and Equipment: Select tools or equipment that minimize production of excessive noise levels.
- G. Templates: Obtain and distribute to the parties involved templates for Work specified to be factory prepared and field installed. Check Shop Drawings of other portions of the Work to confirm that adequate provisions are made for locating and installing products to comply with indicated requirements.
- H. Attachment: Provide blocking and attachment plates and anchors and fasteners of adequate size and number to securely anchor each component in place, accurately located and aligned with other portions of the Work. Where size and type of attachments are not indicated, verify size and type required for load conditions with manufacturer.
 - 1. Mounting Heights: Where mounting heights are not indicated, mount components at heights directed by Architect.
 - 2. Allow for building movement, including thermal expansion and contraction.
 - 3. Coordinate installation of anchorages. Furnish setting drawings, templates, and directions for installing anchorages, including sleeves, concrete inserts, anchor bolts, and items with integral anchors, that are to be embedded in concrete or masonry. Deliver such items to Project site in time for installation.
- I. Joints: Make joints of uniform width. Where joint locations in exposed Work are not indicated, arrange joints for the best visual effect, as judged by Architect. Fit exposed connections together to form hairline joints.
- J. Repair or remove and replace damaged, defective, or nonconforming Work.
 - 1. Comply with Section 017700 "Closeout Procedures" for repairing or removing and replacing defective Work.

3.6 CUTTING AND PATCHING

- A. General: Employ skilled workers to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time, and complete without delay.
 - 1. Cut in-place construction to provide for installation of other components or performance of other construction, and subsequently patch as required to restore surfaces to their original condition.
- B. Temporary Support: Provide temporary support of Work to be cut.
- C. Protection: Protect in-place construction during cutting and patching to prevent damage. Provide protection from adverse weather conditions for portions of Project that might be exposed during cutting and patching operations.
- D. Cutting: Cut in-place construction by sawing, drilling, breaking, chipping, grinding, and similar operations, including excavation, using methods least likely to damage elements retained or adjoining construction. If possible, review proposed procedures with original Installer; comply with original Installer's written recommendations.
 - 1. In general, use hand or small power tools designed for sawing and grinding, not hammering and chopping. Cut holes and slots neatly to minimum size required, and with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use.
 - 2. Finished Surfaces: Cut or drill from the exposed or finished side into concealed surfaces.
 - 3. Concrete and Masonry: Cut using a cutting machine, such as an abrasive saw or a diamond-core drill.
 - 4. Excavating and Backfilling: Comply with requirements in applicable Sections where required by cutting and patching operations.
 - 5. Mechanical and Electrical Services: Cut off pipe or conduit in walls or partitions to be removed. Cap, valve, or plug and seal remaining portion of pipe or conduit to prevent entrance of moisture or other foreign matter after cutting.
 - 6. Proceed with patching after construction operations requiring cutting are complete.
- E. Patching: Patch construction by filling, repairing, refinishing, closing up, and similar operations following performance of other Work. Patch with durable seams that are as invisible as practicable, as judged by Architect. Provide materials and comply with installation requirements specified in other Sections, where applicable.
 - 1. Inspection: Where feasible, test and inspect patched areas after completion to demonstrate physical integrity of installation.
 - 2. Exposed Finishes: Restore exposed finishes of patched areas and extend finish restoration into retained adjoining construction in a manner that will eliminate evidence of patching and refinishing.
 - a. Clean piping, conduit, and similar features before applying paint or other finishing materials.
 - b. Restore damaged pipe covering to its original condition.

- 3. Floors and Walls: Where walls or partitions that are removed extend one finished area into another, patch and repair floor and wall surfaces in the new space. Provide an even surface of uniform finish, color, texture, and appearance. Remove in-place floor and wall coverings and replace with new materials, if necessary, to achieve uniform color and appearance.
 - a. Where patching occurs in a painted surface, prepare substrate and apply primer and intermediate paint coats appropriate for substrate over the patch, and apply final paint coat over entire unbroken surface containing the patch, corner to corner of wall and edge to edge of ceiling. Provide additional coats until patch blends with adjacent surfaces.
- 4. Ceilings: Patch, repair, or rehang in-place ceilings as necessary to provide an even-plane surface of uniform appearance.
- 5. Exterior Building Enclosure: Patch components in a manner that restores enclosure to a weathertight condition and ensures thermal and moisture integrity of building enclosure.
- F. Cleaning: Clean areas and spaces where cutting and patching are performed. Remove paint, mortar, oils, putty, and similar materials from adjacent finished surfaces.

3.7 COORDINATION OF OWNER'S PORTION OF THE WORK

- A. Site Access: Provide access to Project site for Owner's separate contractors.
 - 1. Provide temporary facilities required for Owner-furnished, Contractor-installed products.
 - 2. Refer to Section 011000 "Summary" for other requirements for Owner-furnished, Contractor-installed products
- B. Coordination: Coordinate construction and operations of the Work with work performed by Owner's separate contractors.
 - 1. Construction Schedule: Inform Owner of Contractor's preferred construction schedule for Owner's portion of the Work. Adjust construction schedule based on a mutually agreeable timetable. Notify Owner if changes to schedule are required due to differences in actual construction progress.

3.8 PROGRESS CLEANING

- A. Clean Project site and work areas daily, including common areas. Enforce requirements strictly. Dispose of materials lawfully.
 - 1. Comply with requirements in NFPA 241 for removal of combustible waste materials and debris.
 - 2. Do not hold waste materials more than seven days during normal weather or three days if the temperature is expected to rise above 80 deg F (27 deg C).
 - 3. Containerize hazardous and unsanitary waste materials separately from other waste. Mark containers appropriately and dispose of legally, according to regulations.
 - a. Use containers intended for holding waste materials of type to be stored.

- 4. Coordinate progress cleaning for joint-use areas where Contractor and other contractors are working concurrently.
- B. Site: Maintain Project site free of waste materials and debris.
- C. Work Areas: Clean areas where Work is in progress to the level of cleanliness necessary for proper execution of the Work.
 - 1. Remove liquid spills promptly.
 - 2. Where dust would impair proper execution of the Work, broom-clean or vacuum the entire work area, as appropriate.
- D. Installed Work: Keep installed work clean. Clean installed surfaces according to written instructions of manufacturer or fabricator of product installed, using only cleaning materials specifically recommended. If specific cleaning materials are not recommended, use cleaning materials that are not hazardous to health or property and that will not damage exposed surfaces.
- E. Concealed Spaces: Remove debris from concealed spaces before enclosing the space.
- F. Exposed Surfaces: Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Substantial Completion.
- G. Waste Disposal: Do not bury or burn waste materials on-site. Do not wash waste materials down sewers or into waterways. Comply with waste disposal requirements in Section 017419 "Construction Waste Management and Disposal."
- H. During handling and installation, clean and protect construction in progress and adjoining materials already in place. Apply protective covering where required to ensure protection from damage or deterioration at Substantial Completion.
- I. Clean and provide maintenance on completed construction as frequently as necessary through the remainder of the construction period. Adjust and lubricate operable components to ensure operability without damaging effects.
- J. Limiting Exposures: Supervise construction operations to ensure that no part of the construction, completed or in progress, is subject to harmful, dangerous, damaging, or otherwise deleterious exposure during the construction period.

3.9 STARTING AND ADJUSTING

- A. Start equipment and operating components to confirm proper operation. Remove malfunctioning units, replace with new units, and retest.
- B. Adjust equipment for proper operation. Adjust operating components for proper operation without binding.
- C. Test each piece of equipment to verify proper operation. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.

D. Manufacturer's Field Service: Comply with qualification requirements in Section 014000 "Quality Requirements."

3.10 PROTECTION AND REPAIR OF INSTALLED CONSTRUCTION

- A. Provide final protection and maintain conditions that ensure installed Work is without damage or deterioration at time of Substantial Completion.
- B. Repair Work previously completed and subsequently damaged during construction period. Repair to like-new condition.
- C. Protection of Existing Items: Provide protection and ensure that existing items to remain undisturbed by construction are maintained in condition that existed at commencement of the Work.
- D. Comply with manufacturer's written instructions for temperature and relative humidity.

END OF SECTION 017300

SECTION 017419 – EXCAVATED SOIL AND CONSTRUCTION WASTE MANAGEMENT

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for the following activities related to above grade construction activities:
 - 1. Salvaging nonhazardous construction and demolition (C&D) waste.
 - 2. Recycling nonhazardous construction and demolition waste.
 - 3. Disposing of nonhazardous construction and demolition waste.
- B. This Section also includes administrative and procedural requirements for the following activities related to subgrade construction, regrading, landscaping, and covering of regraded and disturbed soil:
 - 1. Identification and disposition of non-reusable cut material.
 - 2. Recycling nonhazardous construction and demolition waste.
 - 3. Disposing of nonhazardous construction and demolition waste.
 - 4. Disposing of nonhazardous waste.
 - 5. Disposition of cut material.
 - 6. Acceptable surface conditions for the placement of cover.
 - 7. Excavation and disposal of contaminated soil.
- C. Related Sections include the following:
 - 1. Division 01 Section "Multiple Contract Summary" for coordination of responsibilities for waste management.
 - 2. Division 01 Section "Temporary Facilities and Controls" for environmental-protection measures during construction.
 - 3. Division 01 Section "Health and Safety" for minimum requirements for health and safety related to environmental exposure.
 - 4. Division 31 Section "Site Clearing" for disposition of waste resulting from site clearing and removal of above- and below-grade improvements.
 - 5. Division 31 Section "Earth Moving" for underground utility clearance, preparing subgrades for foundations, walks, pavements, and turf and grasses, excavating and backfilling for buildings and structures, and applying site Cover soil layer.
- D. The site subsurface conditions are described in the *Buffalo Outer Harbor Civic Improvements Area D Phase II Environmental Site Investigation Report*, LiRo Engineers Inc., November 2017,

the Limited Human Health Exposure Assessment for Portions of the Buffalo Outer Harbor, URS Corporation, New York, February 2012 (including appendices), and Human Health Risk Characterization – Buffalo Outer Harbor, GEI Consultants, Inc., September 2020.

- E. As shown on Drawing L400, a portion of the work will be conducted within a NYSDEC Environmental Easement. All work within the Easement must be conducted in accordance with the requirements of the Brownfield Cleanup Program Port-Greenbelt (Site ID B-00149) Site Management Plan and Excavation Work Plan.
- F. Based on the investigations performed, the area consists of soil and fill that includes foundry sands, slag, brick, layers of silt/clay particles of ash and/or flue dust, hydraulic fill (dredged material), gravel, and crushed concrete. Existing surface soil (i.e. soil at a depth of 0 to 6 inches) may be amended, reworked and/or seeded. Any amendments used within the NYSDEC Easement Area must be approved for use by NYSDEC and the final cover soil thickness above the existing demarcation layer must be a minimum of 12 inches. The subsurface material (i.e., soil below the NYSDEC Easement Area demarcation layer or at a depth of greater than one-foot outside the Easement Area) shall either be left undisturbed, minimally disturbed and overlain with cover (clean soil or pavement), relocated/regraded onsite for beneficial use (in accordance with 6NYCRR Part 360) and overlain with cover, or removed from the site and disposed of in accordance with all applicable codes, rules, and regulations. Material disposition is summarized in the table below.

Material Type	Location/Description	Disposition
Construction Waste	Generated by Contractor During Con-	Disposed of Off-Site Under
	struction	the Base Bid
Non-Salvageable Surficial	Existing Non-Salvageable Above	Disposed of Off-Site Under
C&D Waste	Grade C&D Material	the Base Bid
Cut Material	Site Subsurface Material (i.e., soil be-	Reused Onsite for Beneficial
	low the NYSDEC Easement Area de-	Use. Must be Covered with
	marcation layer or at a depth of	12" Clean Fill or stockpiled
	greater than one-foot outside the Ease-	in location shown on plans.
	ment Area) Moved from Its In-Situ	
	Condition	
Non-Reusable Cut Material	Site Subsurface Material Moved from	Disposed of Off-Site Under
	Its In-Situ Condition Deemed Unusa-	Unit Price Allowance
	ble by Owner's Representative	
Visually Contaminated Soil	Cut Contaminated Soil That May Not	Disposed of Off-Site Under
	Meet 6NYCRR Part 360.13(C) Bene-	Unit Price Allowance
	ficial Use Requirements	
Petroleum-Contaminated	Cut Soil That is Identifiable to Con-	Disposed of Off-Site Under
Soil	tain Petroleum Either Visually,	Unit Price Allowance
	Through Strong Petroleum Odor, or	
	by Elevated Contaminant Vapor.	

G. Contractor shall be compensated for testing, off-site transportation and disposal of non-recyclable or reusable C&D material and trash uncovered during subsurface construction activities by unit using the unit price allowance for C&D Debris Disposal. Waste not pre-existing at the site and generated from Contractor's own activities will not be compensated under the unit price allowance.

H. Contractor shall be compensated for testing, off-site transportation and disposal of visually contaminated soil and petroleum-contaminated soil by unit using the unit price allowance for Contaminated Soil Disposal.

1.3 DEFINITIONS

- A. Construction Waste: Building and site improvement materials and other solid waste resulting from construction, remodeling, renovation, or repair operations. Construction waste includes packaging.
- B. Non-Salvageable Surficial C&D Waste: Building and site improvement materials resulting from demolition or selective demolition operations.
- C. Cut Material: Site subsurface material that is excavated, moved, regraded, or otherwise disturbed from its in-situ condition present at the initiation of the project.
- D. Non-Reusable Cut Material: C&D waste and trash or garbage encountered during subgrade construction operations deemed unusable by the Owner's Representative.
- E. Disposal: Removal off-site of excavated contaminated soil, trash, or demolition and construction waste and subsequent sale, recycling, reuse, or deposit in landfill or incinerator acceptable to authorities having jurisdiction.
- F. Recycle: Recovery of non-salvageable surficial C&D waste or construction waste for subsequent processing in preparation for reuse.
- G. Salvage: Recovery of surficial C&D materials or construction waste and subsequent sale or reuse in another facility.
- H. Salvage and Reuse: Recovery of demolition or construction waste and subsequent incorporation into the Work.
- I. Nonhazardous Waste: Non-reusable cut material or contaminated soil not meeting any of the characteristics defined in 40 CFR Part 261 Subpart C and not a universal waste (e.g. batteries, pesticides, mercury-containing equipment, and bulbs).
- J. Visually Contaminated Soil: Cut contaminated soil material that may not meet 6NYCRR Part 360.13(c) beneficial use requirements based on visual observations.
- K. Petroleum-Contaminated Soil: Soil that contains a petroleum source such as a UST, AST or piping and contains substantial quantities of mobile petroleum contamination (i.e., petroleum saturated) that is identifiable either visually, through strong odor, by elevated contaminant vapor or is otherwise readily detectable without laboratory analysis.

1.4 PERFORMANCE REQUIREMENTS

A. General: The Contractor is solely responsible to comply (and for complying with) with all current federal, state and local regulations concerning waste characterization, waste handling,

transportation and proper disposal of all waste generated from the project. Contractor is responsible for characterizing waste as hazardous, non-hazardous or otherwise regulated and shall employ methods including testing of composite samples of waste material (through Toxic Characteristic Leachate Potential (TCLP) or other suitable protocols). Copies of all information and reports shall be provided to the Owner's Representative.

- B. Material that is reused onsite is not required to be tested.
- C. Contractor is to practice efficient waste management in the use of materials in the course of the Work. Use all reasonable means to divert construction and demolition waste from landfills and incinerators.

1.5 SUBMITTALS

A. Soil and Waste Management Plan: Submit plan within 10 days of date established for the Notice to Proceed. Refer to requirements in Subsection 1.08 of this Section.

1.6 INFORMATIONAL SUBMITTALS

- A. Waste Characterization Reports or information classifying waste as hazardous, non-hazardous or otherwise regulated.
- B. Waste Facility and Transporter Information: Provide evidence of licenses, certifications and other associated documentation demonstrating that waste facilities and transporters have the means to handle, accept and/or transport intended waste streams.
- C. Recycling and Processing Facility Records: Indicate receipt and acceptance of recyclable waste by recycling and processing facilities licensed to accept them. Include manifests, weight tickets, receipts, and invoices.
- D. Landfill and Incinerator Disposal Records: Indicated Receipt and acceptance of recyclable waste by landfills and incinerator facilities licensed to accept them. Include manifests, weight tickets, receipts and invoices.

1.7 QUALITY ASSURANCE

- A. Regulatory Requirements: Comply with hauling and disposal regulations of authorities having jurisdiction.
- B. Soil and Waste Management Conference: Conduct pre-construction conference at Project site to review methods and procedures related to Contaminated Soil and Waste Management including, but not limited to, the following:
 - 1. Review and discuss contaminated soil and waste management plan including responsibilities of waste coordinator.
 - 2. Review requirements for documenting quantities of each type of waste and its disposition.

- 3. Review and finalize procedures for materials separation and verify availability of containers and bins needed to avoid delays.
- 4. Review procedures for on-site direct load contaminated soil containerization, manifesting and transportation to recycling and disposal facilities.
- 5. Review and discuss equipment decontamination procedures and control following excavation activities.

1.8 SOIL AND WASTE MANAGEMENT PLAN

A. General: Develop plan consisting of:

- 1. Methodology for excavated soil handling, non-reusable cut material segregation and stockpiling, contaminated soil segregation and stockpiling, and C&D waste handling.
- 2. Methodology for waste identification, characterization, means to establish waste quantities by weight or volume, identification of salvaged materials slated for reuse, and waste reduction.
- 3. Identification of permitted waste transporters
- 4. Identification of disposal and recycling facilities.
- 5. Proposed soil sampling plans and laboratory analytical plans (identifying the frequency of sampling, analytical schedule, and environmental analytical laboratory) for any materials that will be disposed off-site at a regulated facility.
- 6. Salvaged Materials for Reuse: For materials that will be salvaged and reused in this Project, describe methods for preparing salvaged materials before incorporation into the Work.
- B. Waste Identification: Indicate anticipated types and quantities of non-salvageable surficial C&D waste, site-clearing and construction waste generated by the Work. Include estimated quantities and assumptions for estimates.
- C. The receipt and/or review of the Contractor's Soil and Waste Management Plan shall not relieve the Contractor of related responsibilities under all governing laws and regulations.

1.9 PERFORMANCE REQUIREMENTS

A. General: Achieve end-of-Project rates for salvage/recycling of 50 percent by weight of total nonhazardous solid waste generated by the Work. Facilitate recycling and salvage of materials.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 PLAN IMPLEMENTATION

A. General: Implement soil and waste management plan as approved by Owner's Representative. Provide excavation equipment, staging and loading area(s), covered roll-off containers, storage,

signage, emissions control and transportation including any and all other items as required to implement soils and waste management during the entire duration of the Contract.

- 1. Comply with Division 01 Section "Temporary Facilities and Controls" for operation, termination, and removal requirements.
- B. Site Access and Temporary Controls: Conduct waste management operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.
 - 1. Designate and label specific areas on Project site necessary for separating materials that are to be disposed, reused, salvaged, recycled, donated, and sold.
 - 2. Comply with Division 01 Section "Temporary Facilities and Controls" for controlling dust and dirt, environmental protection, and noise control.
- C. Training: Train workers, subcontractors, and suppliers on proper contaminated soils management and decontamination procedures, as appropriate for the Work occurring at Project site.
- D. Transportation:
 - 1. Transport items required to be disposed off-site to an approved receiving facility permitted to accept non-hazardous contaminated soil and debris.
 - 2. Protect items from damage during transport and storage.

3.2 SALVAGING C&D WASTE

- A. Comply with requirements in Section 024119 "Selective Demolition" for salvaging demolition waste.
- A. Salvaged Items for Reuse in the Work as Show in the Contract Drawings:
 - 1. Clean salvaged items.
 - 2. Store items in a secure area until installation.
 - 3. Protect items from damage during transport and storage.
 - 4. Install salvaged items to comply with installation requirements for new materials and equipment. Provide connections, supports, and miscellaneous materials necessary to make items functional for use indicated.
- B. Salvaged Items for Sale and Donation: Not permitted on Project site.
- C. Salvaged Items for Owner's Use:
 - 1. Clean salvaged items.
 - 2. Pack or crate items after cleaning. Identify contents of containers.
 - 3. Store items in a secure area until delivery to Owner.
 - 4. Transport items to Owner's storage area on-site.
 - 5. Protect items from damage during transport and storage.

3.3 RECYCLING CONSTRUCTION AND DEMOLITION WASTE, GENERAL

- A. General: Except for items or materials to be salvaged, recycled, or otherwise reused, recycle waste materials to the greatest extent practicable.
 - 1. Recycle paper and beverage containers used by on-site workers.
- B. Recycling Incentives: Revenues, savings, rebates, tax credits, and other incentives received for recycling waste materials shall be shared equally by Owner and Contractor.
- C. Preparation of Waste: Prepare and maintain recyclable waste materials according to recycling or reuse facility requirements. Maintain materials free of dirt, adhesives, solvents, petroleum contamination, and other substances deleterious to the recycling process.
- D. Procedures: Separate recyclable waste from other waste materials, trash, and debris. Separate recyclable waste by type at Project site to the maximum extent practical according to approved construction waste management plan.
 - 1. Provide appropriately marked containers or bins for controlling recyclable waste until removed from Project site. Include list of acceptable and unacceptable materials at each container and bin.
 - a. Inspect containers and bins for contamination and remove contaminated materials if found.
 - 2. Stockpile processed materials on-site without intermixing with other materials. Place, grade, and shape stockpiles to drain surface water. Cover to prevent windblown dust.
 - 3. Stockpile materials away from construction area. Do not store within drip line of remaining trees.
 - 4. Store components off the ground and protect from the weather.
 - 5. Remove recyclable waste from Owner's property and transport to recycling receiver or processor as often as required to prevent overfilling bins.

3.4 IDENTIFICATION AND DISPOSITION OF NON-REUSABLE CUT MATERIAL

- A. Contractor shall remove all non-reusable cut material (C&D waste and trash or garbage) contained in subsurface materials encountered during subgrade construction, regrading, and landscaping operations and legally dispose or recycle these materials off-site.
- B. Non-reusable cut material includes in-situ subsurface material that contains a significant quantity of trash or garbage. Identification of non-reusable cut material shall be done in coordination with the Owner's Representative and shall be determined by the Owner's Representative.
- C. Non-reusable cut material also includes large sized C&D debris such as tires, appliances, equipment and equipment parts, plastic tarps, and salvaged building components, etc. Identification of non-reusable cut material shall be done in coordination with the Owner's Representative or his designated representative and shall be determined by the Owner's Representative.

- D. Non-reusable cut material also includes visually contaminated soil that may not meet 6NYCRR Part 360.13(c) beneficial use requirements or petroleum contaminated soil. Identification of contaminated soil shall be done in coordination with the Owner's Representative or his designated representative and shall be determined by the Owner's Representative. Contaminated soil shall be stockpiled, tested, removed from the site, and disposed of in accordance with Subsection 3.08 of this Section.
- E. Recordkeeping: Non-reusable cut material, other than visually contaminated or petroleum contaminated soil, disposed off-site will accrue for payment under the C&D Waste Disposal unit price allowance based on Certified Weight Tickets obtained from the receiving facility.

3.5 RECYCLING NONHAZARDOUS CONSTRUCTION AND DEMOLITION WASTE

- A. Remove excess soil from C&D materials recovered during subgrade construction, regrading, and landscaping operations.
- B. Segregate and legally recycle offsite salvageable metals and other salvageable materials to the extent practicable.
- C. Asphalt Paving: Grind asphalt to maximum 1-1/2-inch (38-mm) size.
- D. Asphalt Paving: Break up and transport paving to asphalt-recycling facility.
- E. Concrete: Remove reinforcement and other metals from concrete and sort with other metals.
 - 1. Pulverize concrete to maximum 1-1/2-inch (38-mm) size.
- F. Masonry: Remove metal reinforcement, anchors, and ties from masonry and sort with other metals.
 - 1. Pulverize masonry to maximum 1-1/2-inch (38-mm) size.
 - 2. Clean and stack undamaged, whole masonry units on wood pallets.
- G. Wood Materials: Sort and stack members according to size, type, and length. Separate lumber, engineered wood products, panel products, and treated wood materials.
- H. Metals: Separate metals by type.
 - 1. Structural Steel: Stack members according to size, type of member, and length.
 - 2. Remove and dispose of bolts, nuts, washers, and other rough hardware.
- I. Asphalt Shingle Roofing: Separate organic and glass-fiber asphalt shingles and felts. Remove and dispose of nails, staples, and accessories.
- J. Gypsum Board: Stack large clean pieces on wood pallets or in container and store in a dry location. Remove edge trim and sort with other metals. Remove and dispose of fasteners.
- K. Acoustical Ceiling Panels and Tile: Stack large clean pieces on wood pallets and store in a dry location.

- L. Metal Suspension System: Separate metal members, including trim and other metals from acoustical panels and tile, and sort with other metals.
- M. Carpet and Pad: Roll large pieces tightly after removing debris, trash, adhesive, and tack strips.
 - 1. Store clean, dry carpet and pad in a closed container or trailer provided by carpet reclamation agency or carpet recycler.
- N. Carpet Tile: Remove debris, trash, and adhesive.
 - 1. Stack tile on pallet and store clean, dry carpet in a closed container or trailer provided by carpet reclamation agency or carpet recycler.
- O. Piping: Reduce piping to straight lengths and store by material and size. Separate supports, hangers, valves, sprinklers, and other components by material and size.
- P. Conduit: Reduce conduit to straight lengths and store by material and size.
- Q. Lamps: Separate lamps by type and store according to requirements in 40 CFR 273.

3.6 RECYCLING CONSTRUCTION WASTE

A. Packaging:

- 1. Cardboard and Boxes: Break down packaging into flat sheets. Bundle and store in a dry location.
- 2. Polystyrene Packaging: Separate and bag materials.
- 3. Pallets: As much as possible, require deliveries using pallets to remove pallets from Project site. For pallets that remain on-site, break down pallets into component wood pieces and comply with requirements for recycling wood.
- 4. Crates: Break down crates into component wood pieces and comply with requirements for recycling wood.

B. Wood Materials:

- 1. Clean Cut-Offs of Lumber: Grind or chip into small pieces.
- 2. Clean Sawdust: Bag sawdust that does not contain painted or treated wood.
- C. Gypsum Board: Stack large clean pieces on wood pallets or in container and store in a dry location.
 - 1. Clean Gypsum Board: Grind scraps of clean gypsum board using small mobile chipper or hammer mill. Screen out paper after grinding.
- D. Paint: Seal containers and store by type.

3.7 DISPOSITION OF CUT MATERIAL

- A. In accordance with 6NYCRR Part 360.13(c) beneficial use requirements, cut subsurface material shall be repurposed and used as fill to meet designed grades in areas of similar physical characteristics on Site. Cut material will be generated during grading, excavation, tree stump removal, utility installation, the establishment of white pine posts, and rootwads, and the planting of trees and shrubs and other site related activities. Soil cover shall be placed over the regraded cut material to depths shown by the Contract Drawings.
- B. Import of fill from off-site sources will be required to meet design elevation requirements and cover requirements. Imported fill and cover material shall meet physical property requirements in Section 312000 Earth Moving. Contractor must demonstrate by analytical testing that all imported soil and fill meets 6NYCRR Part 375 Restricted Residential Soil Cleanup objectives.
- C. Saturated cut materials shall be allowed to drain in the area from where they are generated, repurposed, and covered in accordance with the requirements of this Section.
- D. The Contractor shall not cut material from areas of the Site outside the limits of regrading shown on the Contract Drawings. Any areas where material is cut from outside of the excavation lines and grades shown on the Contract Drawings must be covered with a minimum of 1-foot of imported soil and otherwise restored to its originally existing condition at the Contractor's expense at no cost to the Owner.
- E. Contractor shall not traverse on areas not designated to be disturbed. Any ruts or disturbance in these areas must be covered with a minimum of 1-foot of imported soil and otherwise restored to its originally existing condition at the Contractor's expense at no cost to the Owner.
- F. Contractor shall minimally disturb the existing surfaces of meadow seeding, and other otherwise un-regraded and uncovered areas of the site in the course of tree removal, rubble pile salvage, establishing brush piles, large woody debris features, white pine posts, and rootwads, in the course of planting of trees and shrubs, an/or in the course of placing soil and seed. Contractor is responsible to restore site per Section 1.2 F.
- G. Cut materials shall be managed as described in Section 1.2F of this specification.

3.8 ACCEPTABLE SURFACE CONDITION FOR PLACEMENT OF COVER

- A. Prior to the placement of clean cover, the surface over which the cover is to be placed shall be inspected by the Owner's Representative or his designated representative and the Contractor. The Owner's Representative shall determine whether the surface is acceptable for placement of cover.
- B. The surface must be free of protruding debris or material of any type, surfacing of large debris, or soft areas. The surface must meet compaction requirements of Section 312000 Earth Moving.
- C. The Contractor shall correct any surface condition deemed unacceptable by the Owner's Representative.
- D. Any material removed from the surface during correcting the condition shall be disposed of off-site or recycled.

3.9 EXCAVATION AND DISPOSAL OF CONTAMINATED SOIL

- A. Although not previously detected during the site investigation work, the Contractor may encounter non-hazardous petroleum-contaminated soil or other materials or soils exhibiting visual indication of chemical or physical contamination.
- B. Identification of Non-Reusable Cut Material, Visually Contaminated Soil and Petroleum-Contaminated Soil as described in Section 1.2F of this specification shall be done in coordination with the Owner's Representative or his designated representative and shall be determined by the Owner's Representative.
- C. Non-Reusable Cut Material, Visually Contaminated Soil and Petroleum-Contaminated Soil as described in Section 1.2F of this specification shall be stockpiled/staged for off-site disposal. All stockpiled soils slated for off-site disposal shall be placed on and covered with minimum 20 mil HDPE sheeting and secured
- D. Recordkeeping: Non-Reusable Cut Material, Visually Contaminated Soil and Petroleum-Contaminated Soil as described in Section 1.2F of this specification soil that is disposed off-site will accrue for payment under the Contaminated Soil Disposal unit price allowance based on Certified Weight Tickets obtained from the receiving facility.
- E. The Contractor shall collect soil samples as required for disposal characterization. Minimum soil sample frequency and analysis shall be as required by the disposal facility. The Contractor shall package and ship soil samples to an approved independent laboratory. All expenses related to collection, packaging, shipping and analysis of soil samples shall be the responsibility of the Contractor and factored into the allowance unit price.

3.10 DISPOSAL OF NONHAZARDOUS WASTE

- A. General: Except for items or materials to be salvaged, recycled, or otherwise reused, remove waste materials from Project site, including those recovered from above grade and from below grade construction activities and legally dispose of them in a landfill or incinerator acceptable to authorities having jurisdiction.
 - 1. Except as otherwise specified, do not allow waste materials that are to be disposed of to accumulate on-site.
 - 2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
- B. Burning: Do not burn waste materials.
- C. Disposal: Transport waste materials off Owner's property and legally dispose of them. Provide analytical testing as required by each receiving facility. Trucks leaving the site shall be fully loaded.

END OF SECTION 017419

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SECTION 017700 - CLOSEOUT PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes administrative and procedural requirements for Contract closeout, including, but not limited to, the following:
 - 1. Substantial Completion procedures.
 - 2. Final completion procedures.
 - 3. Warranties.
 - 4. Final cleaning.

B. Related Requirements:

- 1. Section 017823 "Operation and Maintenance Data" for additional operation and maintenance manual requirements.
- 2. Section 017839 "Project Record Documents" for submitting Record Drawings, Record Specifications, and Record Product Data.
- 3. Section 017900 "Demonstration and Training" for requirements to train the Owner's maintenance personnel to adjust, operate, and maintain products, equipment, and systems.

1.2 ACTION SUBMITTALS

- A. Product Data: For each type of cleaning agent.
- B. Contractor's List of Incomplete Items: Initial submittal at Substantial Completion.
- C. Certified List of Incomplete Items: Final submittal at Final Completion.

1.3 CLOSEOUT SUBMITTALS

- A. Certificates of Release: From authorities having jurisdiction.
- B. Certificate of Insurance: For continuing coverage.
- C. Field Report: For pest-control inspection.

1.4 SUBSTANTIAL COMPLETION PROCEDURES

A. Contractor's List of Incomplete Items: Prepare and submit a list of items to be completed and corrected (Contractor's "punch list"), indicating the value of each item on the list and reasons why the Work is incomplete.

- B. Submittals Prior to Substantial Completion: Complete the following a minimum of 10 days prior to requesting inspection for determining date of Substantial Completion. List items below that are incomplete at time of request.
 - 1. Certificates of Release: Obtain and submit releases from authorities having jurisdiction, permitting Owner unrestricted use of the Work and access to services and utilities. Include occupancy permits, operating certificates, and similar releases.
 - 2. Submit closeout submittals specified in other Division 01 Sections, including Project Record Documents, operation and maintenance manuals, damage or settlement surveys, property surveys, and similar final record information.
 - 3. Submit closeout submittals specified in individual Sections, including specific warranties, workmanship bonds, maintenance service agreements, final certifications, and similar documents.
 - 4. Submit maintenance material submittals specified in individual Sections, including tools, spare parts, extra materials, and similar items, and deliver to location designated by Construction Manager. Label with manufacturer's name and model number.
 - 5. Submit testing, adjusting, and balancing records.
 - 6. Submit sustainable design submittals not previously submitted.
 - 7. Submit changeover information related to Owner's occupancy, use, operation, and maintenance.
- C. Procedures Prior to Substantial Completion: Complete the following a minimum of 10 days prior to requesting inspection for determining date of Substantial Completion. List items below that are incomplete at time of request.
 - 1. Advise Owner of pending insurance changeover requirements.
 - 2. Make final changeover of permanent locks and deliver keys to Owner. Advise Owner's personnel of changeover in security provisions.
 - 3. Complete startup and testing of systems and equipment.
 - 4. Perform preventive maintenance on equipment used prior to Substantial Completion.
 - 5. Instruct Owner's personnel in operation, adjustment, and maintenance of products, equipment, and systems. Submit demonstration and training video recordings specified in Section 017900 "Demonstration and Training."
 - 6. Advise Owner of changeover in utility services.
 - 7. Participate with Owner in conducting inspection and walkthrough with local emergency responders.
 - 8. Terminate and remove temporary facilities from Project site, along with mockups, construction tools, and similar elements.
 - 9. Complete final cleaning requirements.
 - 10. Touch up paint and otherwise repair and restore marred exposed finishes to eliminate visual defects.
- D. Inspection: Submit a written request for inspection to determine Substantial Completion a minimum of 10 days prior to date the Work will be completed and ready for final inspection and tests. On receipt of request, Architect and Construction Manager will either proceed with inspection or notify Contractor of unfulfilled requirements. Architect will prepare the Certificate of Substantial Completion after inspection or will notify Contractor of items, either on Contractor's list or additional items identified by Architect, that must be completed or corrected before certificate will be issued.

1.5 FINAL COMPLETION PROCEDURES

- A. Submittals Prior to Final Completion: Before requesting final inspection for determining Final Completion, complete the following:
 - 1. Submit a final Application for Payment in accordance with Section 012900 "Payment Procedures."
 - 2. Certified List of Incomplete Items: Submit certified copy of Architect's Substantial Completion inspection list of items to be completed or corrected (punch list), endorsed and dated by Architect. Certified copy of the list shall state that each item has been completed or otherwise resolved for acceptance.
 - 3. Certificate of Insurance: Submit evidence of final, continuing insurance coverage complying with insurance requirements.
 - 4. Submit pest-control final inspection report.
- B. Inspection: Submit a written request for final inspection to determine acceptance a minimum of 10 days prior to date the Work will be completed and ready for final inspection and tests. On receipt of request, Architect and Construction Manager will either proceed with inspection or notify Contractor of unfulfilled requirements. Architect will prepare a final Certificate for Payment after inspection or will notify Contractor of construction that must be completed or corrected before certificate will be issued.

1.6 LIST OF INCOMPLETE ITEMS

- A. Organization of List: Include name and identification of each space and area affected by construction operations for incomplete items and items needing correction including, if necessary, areas disturbed by Contractor that are outside the limits of construction.
 - 1. Organize list of spaces in sequential order, starting with exterior areas first and listed by room or space number.
 - 2. Organize items applying to each space by major element, including categories for ceilings, individual walls, floors, equipment, and building systems.
 - 3. Include the following information at the top of each page:
 - a. Project name.
 - b. Date.
 - c. Name of Architect and Construction Manager.
 - d. Name of Contractor.
 - e. Page number.
 - 4. Submit list of incomplete items in the following format:
 - a. Web-Based Project Software Upload: Utilize software feature for creating and updating list of incomplete items (punch list).

1.7 SUBMITTAL OF PROJECT WARRANTIES

- A. Time of Submittal: Submit written warranties on request of Architect for designated portions of the Work where warranties are indicated to commence on dates other than date of Substantial Completion, or when delay in submittal of warranties might limit Owner's rights under warranty.
- B. Organize warranty documents into an orderly sequence based on the table of contents of Project Manual.
- C. Warranty Electronic File: Provide warranties and bonds in PDF format. Assemble complete warranty and bond submittal package into a single electronic PDF file with bookmarks enabling navigation to each item. Provide bookmarked table of contents at beginning of document.
 - 1. Submit by uploading to web-based project software site.

D. Warranties in Paper Form:

- 1. Bind warranties and bonds in heavy-duty, three-ring, vinyl-covered, loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive 8-1/2-by-11-inch (215-by-280-mm) paper.
- E. Provide additional copies of each warranty to include in operation and maintenance manuals.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Cleaning Agents: Use cleaning materials and agents recommended by manufacturer or fabricator of the surface to be cleaned. Do not use cleaning agents that are potentially hazardous to health or property or that might damage finished surfaces.
 - 1. Use cleaning products that comply with Green Seal's GS-37, or if GS-37 is not applicable, use products that comply with the California Code of Regulations maximum allowable VOC levels.

PART 3 - EXECUTION

3.1 FINAL CLEANING

- A. Perform final cleaning. Conduct cleaning and waste-removal operations to comply with local laws and ordinances and Federal and local environmental and antipollution regulations.
- B. Cleaning: Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit to condition expected in an average commercial building cleaning and maintenance program. Comply with manufacturer's written instructions.

- 1. Complete the following cleaning operations before requesting inspection for certification of Substantial Completion for entire Project or for a designated portion of Project:
 - a. Clean Project site of rubbish, waste material, litter, and other foreign substances.
 - b. Clean exposed exterior and interior hard-surfaced finishes to a dirt-free condition, free of stains, films, and similar foreign substances. Avoid disturbing natural weathering of exterior surfaces. Restore reflective surfaces to their original condition.
 - c. Remove debris and surface dust from limited-access spaces, including roofs, plenums, shafts, trenches, equipment vaults, manholes, attics, and similar spaces.
 - d. Clean flooring, removing debris, dirt, and staining; clean according to manufacturer's recommendations.
 - e. Vacuum and mop concrete.
 - f. Vacuum carpet and similar soft surfaces, removing debris and excess nap; clean according to manufacturer's recommendations if visible soil or stains remain.
 - g. Clean transparent materials, including mirrors and glass in doors and windows. Remove glazing compounds and other noticeable, vision-obscuring materials. Polish mirrors and glass, taking care not to scratch surfaces.
 - h. Remove labels that are not permanent.
 - i. Wipe surfaces of mechanical and electrical equipment and similar equipment. Remove excess lubrication, paint and mortar droppings, and other foreign substances.
 - j. Clean plumbing fixtures to a sanitary condition, free of stains, including stains resulting from water exposure.
 - k. Replace disposable air filters and clean permanent air filters. Clean exposed surfaces of diffusers, registers, and grills.
 - 1. Clean ducts, blowers, and coils if units were operated without filters during construction or that display contamination with particulate matter on inspection.
 - m. Clean luminaires, lamps, globes, and reflectors to function with full efficiency.
 - n. Clean strainers.
 - o. Leave Project clean and ready for occupancy.
- C. Pest Control: Comply with pest control requirements in Section 015000 "Temporary Facilities and Controls." Prepare written report.
- D. Construction Waste Disposal: Comply with waste-disposal requirements in Section 017419 "Excavated Soil Construction Waste Management and Disposal."

3.2 REPAIR OF THE WORK

A. Complete repair and restoration operations required by Section 017300 "Execution" before requesting inspection for determination of Substantial Completion.

END OF SECTION 017700

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SECTION 017823 - OPERATION AND MAINTENANCE DATA

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes administrative and procedural requirements for preparing operation and maintenance manuals, including the following:
 - 1. Operation and maintenance documentation directory manuals.
 - 2. Systems and equipment operation manuals.
 - 3. Systems and equipment maintenance manuals.
 - 4. Product maintenance manuals.

1.2 CLOSEOUT SUBMITTALS

- A. Submit operation and maintenance manuals indicated. Provide content for each manual as specified in individual Specification Sections, and as reviewed and approved at the time of Section submittals. Submit reviewed manual content formatted and organized as required by this Section.
 - 1. Architect will comment on whether content of operation and maintenance submittals is acceptable.
 - 2. Where applicable, clarify and update reviewed manual content to correspond to revisions and field conditions.
- B. Format: Submit operation and maintenance manuals in the following format:
 - 1. Submit by uploading to web-based project software site. Enable reviewer comments on draft submittals.
 - 2. Submit three paper copies. Architect, through Construction Manager, will return two copies.
- C. Final Manual Submittal: Submit each manual in final form prior to requesting inspection for Substantial Completion and at least 15 days before commencing demonstration and training. Architect will return copy with comments.
 - 1. Correct or revise each manual to comply with Architect's comments. Submit copies of each corrected manual within 15 days of receipt of Architect's comments and prior to commencing demonstration and training.
- D. Comply with Section 017700 "Closeout Procedures" for schedule for submitting operation and maintenance documentation.

1.3 FORMAT OF OPERATION AND MAINTENANCE MANUALS

- A. Manuals, Electronic Files: Submit manuals in the form of a multiple file composite electronic PDF file for each manual type required.
 - 1. Electronic Files: Use electronic files prepared by manufacturer where available. Where scanning of paper documents is required, configure scanned file for minimum readable file size.
 - 2. File Names and Bookmarks: Bookmark individual documents based on file names. Name document files to correspond to system, subsystem, and equipment names used in manual directory and table of contents. Group documents for each system and subsystem into individual composite bookmarked files, then create composite manual, so that resulting bookmarks reflect the system, subsystem, and equipment names in a readily navigated file tree. Configure electronic manual to display bookmark panel on opening file.
- B. Manuals, Paper Copy: Submit manuals in the form of hard-copy, bound and labeled volumes.
 - 1. Binders: Heavy-duty, three-ring, vinyl-covered, loose-leaf binders, in thickness necessary to accommodate contents, sized to hold 8-1/2-by-11-inch (215-by-280-mm) paper; with clear plastic sleeve on spine to hold label describing contents and with pockets inside covers to hold folded oversize sheets.
 - 2. Drawings: Attach reinforced, punched binder tabs on drawings and bind with text.
 - a. If oversize drawings are necessary, fold drawings to same size as text pages and use as foldouts.
 - b. If drawings are too large to be used as foldouts, fold and place drawings in labeled envelopes and bind envelopes in rear of manual. At appropriate locations in manual, insert typewritten pages indicating drawing titles, descriptions of contents, and drawing locations.

1.4 REQUIREMENTS FOR EMERGENCY, OPERATION, AND MAINTENANCE MANUALS

- A. Organization of Manuals: Unless otherwise indicated, organize each manual into a separate section for each system and subsystem, and a separate section for each piece of equipment not part of a system. Each manual shall contain the following materials, in the order listed:
 - 1. Title page.
 - 2. Table of contents.
 - 3. Manual contents.
- B. Title Page: Include the following information:
 - 1. Subject matter included in manual.
 - 2. Name and address of Project.
 - 3. Name and address of Owner.
 - 4. Date of submittal.
 - 5. Name and contact information for Contractor.
 - 6. Name and contact information for Construction Manager.
 - 7. Name and contact information for Architect.

- 8. Name and contact information for Commissioning Authority.
- 9. Names and contact information for major consultants to the Architect that designed the systems contained in the manuals.
- 10. Cross-reference to related systems in other operation and maintenance manuals.
- C. Table of Contents: List each product included in manual, identified by product name, indexed to the content of the volume, and cross-referenced to Specification Section number in Project Manual.
- D. Manual Contents: Organize into sets of manageable size. Arrange contents alphabetically by system, subsystem, and equipment. If possible, assemble instructions for subsystems, equipment, and components of one system into a single binder.
- E. Identification: In the documentation directory and in each operation and maintenance manual, identify each system, subsystem, and piece of equipment with same designation used in the Contract Documents. If no designation exists, assign a designation according to ASHRAE Guideline 4, "Preparation of Operating and Maintenance Documentation for Building Systems."

1.5 SYSTEMS AND EQUIPMENT OPERATION MANUALS

- A. Systems and Equipment Operation Manual: Assemble a complete set of data indicating operation of each system, subsystem, and piece of equipment not part of a system. Include information required for daily operation and management, operating standards, and routine and special operating procedures.
- B. Content: In addition to requirements in this Section, include operation data required in individual Specification Sections and the following information:
 - 1. System, subsystem, and equipment descriptions. Use designations for systems and equipment indicated on Contract Documents.
 - 2. Performance and design criteria if Contractor has delegated design responsibility.
 - 3. Operating standards.
 - 4. Operating procedures.
 - 5. Operating logs.
 - 6. Wiring diagrams.
 - 7. Control diagrams.
 - 8. Piped system diagrams.
 - 9. Precautions against improper use.
 - 10. License requirements including inspection and renewal dates.
- C. Descriptions: Include the following:
 - 1. Product name and model number. Use designations for products indicated on Contract Documents.
 - 2. Manufacturer's name.
 - 3. Equipment identification with serial number of each component.
 - 4. Equipment function.
 - 5. Operating characteristics.

- 6. Limiting conditions.
- 7. Performance curves.
- 8. Engineering data and tests.
- 9. Complete nomenclature and number of replacement parts.
- D. Operating Procedures: Include the following, as applicable:
 - 1. Startup procedures.
 - 2. Equipment or system break-in procedures.
 - 3. Routine and normal operating instructions.
 - 4. Regulation and control procedures.
 - 5. Instructions on stopping.
 - 6. Normal shutdown instructions.
 - 7. Seasonal and weekend operating instructions.
 - 8. Required sequences for electric or electronic systems.
 - 9. Special operating instructions and procedures.
- E. Systems and Equipment Controls: Describe the sequence of operation, and diagram controls as installed.
- F. Piped Systems: Diagram piping as installed, and identify color coding where required for identification.

1.6 SYSTEMS AND EQUIPMENT MAINTENANCE MANUALS

- A. Systems and Equipment Maintenance Manuals: Assemble a complete set of data indicating maintenance of each system, subsystem, and piece of equipment not part of a system. Include manufacturers' maintenance documentation, preventive maintenance procedures and frequency, repair procedures, wiring and systems diagrams, lists of spare parts, and warranty information.
- B. Content: For each system, subsystem, and piece of equipment not part of a system, include source information, manufacturers' maintenance documentation, maintenance procedures, maintenance and service schedules, spare parts list and source information, maintenance service contracts, and warranties and bonds, as described below.
- C. Manufacturers' Maintenance Documentation: Include the following information for each component part or piece of equipment:
 - 1. Standard maintenance instructions and bulletins; include only sheets pertinent to product or component installed. Mark each sheet to identify each product or component incorporated into the Work. If data include more than one item in a tabular format, identify each item using appropriate references from the Contract Documents. Identify data applicable to the Work and delete references to information not applicable.
 - a. Prepare supplementary text if manufacturers' standard printed data are not available and where the information is necessary for proper operation and maintenance of equipment or systems.

- 2. Drawings, diagrams, and instructions required for maintenance, including disassembly and component removal, replacement, and assembly.
- 3. Identification and nomenclature of parts and components.
- 4. List of items recommended to be stocked as spare parts.
- D. Maintenance Procedures: Include the following information and items that detail essential maintenance procedures:
 - 1. Test and inspection instructions.
 - 2. Troubleshooting guide.
 - 3. Precautions against improper maintenance.
 - 4. Disassembly; component removal, repair, and replacement; and reassembly instructions.
 - 5. Aligning, adjusting, and checking instructions.
 - 6. Demonstration and training video recording, if available.
- E. Maintenance and Service Schedules: Include service and lubrication requirements, list of required lubricants for equipment, and separate schedules for preventive and routine maintenance and service with standard time allotment.
- F. Spare Parts List and Source Information: Include lists of replacement and repair parts, with parts identified and cross-referenced to manufacturers' maintenance documentation and local sources of maintenance materials and related services.
- G. Warranties and Bonds: Include copies of warranties and bonds and lists of circumstances and conditions that would affect validity of warranties or bonds.
 - 1. Include procedures to follow and required notifications for warranty claims.
- H. Drawings: Prepare drawings supplementing manufacturers' printed data to illustrate the relationship of component parts of equipment and systems and to illustrate control sequence and flow diagrams. Coordinate these drawings with information contained in record Drawings to ensure correct illustration of completed installation.

1.7 PRODUCT MAINTENANCE MANUALS

- A. Product Maintenance Manual: Assemble a complete set of maintenance data indicating care and maintenance of each product, material, and finish incorporated into the Work.
- B. Content: Organize manual into a separate section for each product, material, and finish. Include source information, product information, maintenance procedures, repair materials and sources, and warranties and bonds, as described below.
- C. Product Information: Include the following, as applicable:
 - 1. Product name and model number.
 - 2. Manufacturer's name.
 - 3. Color, pattern, and texture.
 - 4. Material and chemical composition.
 - 5. Reordering information for specially manufactured products.

- D. Maintenance Procedures: Include manufacturer's written recommendations and the following:
 - 1. Inspection procedures.
 - 2. Types of cleaning agents to be used and methods of cleaning.
 - 3. List of cleaning agents and methods of cleaning detrimental to product.
 - 4. Schedule for routine cleaning and maintenance.
 - 5. Repair instructions.
- E. Repair Materials and Sources: Include lists of materials and local sources of materials and related services.
- F. Warranties and Bonds: Include copies of warranties and bonds and lists of circumstances and conditions that would affect validity of warranties or bonds.
 - 1. Include procedures to follow and required notifications for warranty claims.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 017823

SECTION 017839 - PROJECT RECORD DOCUMENTS

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes administrative and procedural requirements for Project Record Documents, including the following:
 - 1. Record Drawings.
 - 2. Record specifications.
 - 3. Record Product Data.
- B. Related Requirements:
 - 1. Section 017823 "Operation and Maintenance Data" for operation and maintenance manual requirements.

1.2 CLOSEOUT SUBMITTALS

- A. Record Drawings: Comply with the following:
 - 1. Number of Copies: Submit one set(s) of marked-up record prints.
 - 2. Number of Copies: Submit copies of Record Drawings as follows:
 - a. Final Submittal: Submit one paper-copy set(s) of marked-up record prints.
- B. Record Specifications: Submit annotated PDF electronic files and one paper copy of Project's Specifications, including addenda and Contract modifications.
- C. Record Product Data: Submit annotated PDF electronic files and directories and one paper copy of each submittal.
 - 1. Where record Product Data are required as part of operation and maintenance manuals, submit duplicate marked-up Product Data as a component of manual.

1.3 RECORD DRAWINGS

- A. Record Prints: Maintain one set of marked-up paper copies of the Contract Drawings and Shop Drawings, incorporating new and revised drawings as modifications are issued.
 - 1. Preparation: Mark record prints to show the actual installation, where installation varies from that shown originally. Require individual or entity who obtained record data, whether individual or entity is Installer, subcontractor, or similar entity, to provide information for preparation of corresponding marked-up record prints.

- a. Give particular attention to information on concealed elements that would be difficult to identify or measure and record later.
- b. Accurately record information in an acceptable drawing technique.
- c. Record data as soon as possible after obtaining it.
- d. Record and check the markup before enclosing concealed installations.
- e. Cross-reference record prints to corresponding photographic documentation.
- 2. Content: Types of items requiring marking include, but are not limited to, the following:
 - a. Dimensional changes to Drawings.
 - b. Revisions to details shown on Drawings.
 - c. Depths of foundations.
 - d. Locations and depths of underground utilities.
 - e. Revisions to routing of piping and conduits.
 - f. Revisions to electrical circuitry.
 - g. Actual equipment locations.
 - h. Duct size and routing.
 - i. Locations of concealed internal utilities.
 - j. Changes made by Change Order or Construction Change Directive.
 - k. Changes made following Architect's written orders.
 - 1. Details not on the original Contract Drawings.
 - m. Field records for variable and concealed conditions.
 - n. Record information on the Work that is shown only schematically.
- 3. Mark the Contract Drawings and Shop Drawings completely and accurately. Use personnel proficient at recording graphic information in production of marked-up record prints.
- 4. Mark record prints with erasable, red-colored pencil. Use other colors to distinguish between changes for different categories of the Work at same location.
- 5. Mark important additional information that was either shown schematically or omitted from original Drawings.
- 6. Note Construction Change Directive numbers, alternate numbers, Change Order numbers, and similar identification, where applicable.
- B. Record Digital Data Files: Immediately before inspection for Certificate of Substantial Completion, review marked-up record prints with Architect and Construction Manager. When authorized, prepare a full set of corrected digital data files of the Contract Drawings, as follows:
 - 1. Format: Same digital data software program, version, and operating system as for the original Contract Drawings.
 - 2. Format: Annotated PDF electronic file with comment function enabled.
 - 3. Incorporate changes and additional information previously marked on record prints. Delete, redraw, and add details and notations where applicable.
 - 4. Refer instances of uncertainty to Architect through Construction Manager for resolution.
 - 5. Architect will furnish Contractor with one set of digital data files of the Contract Drawings for use in recording information.
- C. Format: Identify and date each Record Drawing; include the designation "PROJECT RECORD DRAWING" in a prominent location.

- 1. Record Prints: Organize record prints into manageable sets. Bind each set with durable paper cover sheets. Include identification on cover sheets.
- 2. Format: Annotated PDF electronic file with comment function enabled.
- 3. Record Digital Data Files: Organize digital data information into separate electronic files that correspond to each sheet of the Contract Drawings. Name each file with the sheet identification. Include identification in each digital data file.
- 4. Identification: As follows:
 - a. Project name.
 - b. Date.
 - c. Designation "PROJECT RECORD DRAWINGS."
 - d. Name of Architect and Construction Manager.
 - e. Name of Contractor.

1.4 RECORD SPECIFICATIONS

- A. Preparation: Mark Specifications to indicate the actual product installation, where installation varies from that indicated in Specifications, addenda, and Contract modifications.
 - 1. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
 - 2. Mark copy with the proprietary name and model number of products, materials, and equipment furnished, including substitutions and product options selected.
 - 3. Record the name of manufacturer, supplier, Installer, and other information necessary to provide a record of selections made.
 - 4. For each principal product, indicate whether Record Product Data has been submitted in operation and maintenance manuals instead of submitted as Record Product Data.
 - 5. Note related Change Orders, Record Product Data, and Record Drawings where applicable.
- B. Format: Submit record specifications as paper copy and scanned PDF electronic file(s) of marked-up paper copy of Specifications.

1.5 RECORD PRODUCT DATA

- A. Recording: Maintain one copy of each submittal during the construction period for Project Record Document purposes. Post changes and revisions to Project Record Documents as they occur; do not wait until end of Project.
- B. Preparation: Mark Product Data to indicate the actual product installation where installation varies substantially from that indicated in Product Data submittal.
 - 1. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
 - 2. Include significant changes in the product delivered to Project site and changes in manufacturer's written instructions for installation.
 - 3. Note related Change Orders, Record Specifications, and Record Drawings where applicable.

- C. Format: Submit Record Product Data as paper copy and scanned PDF electronic file(s) of marked-up paper copy of Product Data.
 - 1. Include Record Product Data directory organized by Specification Section number and title, electronically linked to each item of Record Product Data.

1.6 MAINTENANCE OF RECORD DOCUMENTS

A. Maintenance of Record Documents: Store Record Documents in the field office apart from the Contract Documents used for construction. Do not use Project Record Documents for construction purposes. Maintain Record Documents in good order and in a clean, dry, legible condition, protected from deterioration and loss. Provide access to Project Record Documents for Architect's and Construction Manager's reference during normal working hours.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 017839

SECTION 017900 - DEMONSTRATION AND TRAINING

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes administrative and procedural requirements for instructing Owner's personnel, including the following:
 - 1. Instruction in operation and maintenance of systems, subsystems, and equipment.

1.2 INFORMATIONAL SUBMITTALS

- A. Instruction Program: Submit outline of instructional program for demonstration and training, including a list of training modules and a schedule of proposed dates, times, length of instruction time, and instructors' names for each training module. Include learning objective and outline for each training module.
 - 1. Indicate proposed training modules using manufacturer-produced demonstration and training video recordings for systems, equipment, and products in lieu of video recording of live instructional module.

1.3 QUALITY ASSURANCE

- A. Facilitator Qualifications: A firm or individual experienced in training or educating maintenance personnel in a training program similar in content and extent to that indicated for this Project, and whose work has resulted in training or education with a record of successful learning performance.
- B. Instructor Qualifications: A factory-authorized service representative, complying with requirements in Section 014000 "Quality Requirements," experienced in operation and maintenance procedures and training.
- C. Pre-instruction Conference: Conduct conference at Project site to comply with requirements in Section 013100 "Project Management and Coordination."

1.4 COORDINATION

- A. Coordinate instruction schedule with Owner's operations. Adjust schedule as required to minimize disrupting Owner's operations and to ensure availability of Owner's personnel.
- B. Coordinate instructors, including providing notification of dates, times, length of instruction time, and course content.

C. Coordinate content of training modules with content of approved emergency, operation, and maintenance manuals. Do not submit instruction program until operation and maintenance data have been reviewed and approved by Architect.

1.5 INSTRUCTION PROGRAM

- A. Program Structure: Develop an instruction program that includes individual training modules for each system and for equipment not part of a system, as required by individual Specification Sections.
- B. Training Modules: Develop a learning objective and teaching outline for each module. Include a description of specific skills and knowledge that participant is expected to master. For each module, include instruction for the following as applicable to the system, equipment, or component:
 - 1. Basis of System Design, Operational Requirements, and Criteria: Include the following:
 - a. System, subsystem, and equipment descriptions.
 - b. Performance and design criteria if Contractor is delegated design responsibility.
 - c. Operating standards.
 - d. Regulatory requirements.
 - e. Equipment function.
 - f. Operating characteristics.
 - g. Limiting conditions.
 - h. Performance curves.
 - 2. Documentation: Review the following items in detail:
 - a. Emergency manuals.
 - b. Systems and equipment operation manuals.
 - c. Systems and equipment maintenance manuals.
 - d. Product maintenance manuals.
 - e. Project Record Documents.
 - f. Identification systems.
 - g. Warranties and bonds.
 - h. Maintenance service agreements and similar continuing commitments.
 - 3. Emergencies: Include the following, as applicable:
 - a. Instructions on meaning of warnings, trouble indications, and error messages.
 - b. Instructions on stopping.
 - c. Shutdown instructions for each type of emergency.
 - d. Operating instructions for conditions outside of normal operating limits.
 - e. Sequences for electric or electronic systems.
 - f. Special operating instructions and procedures.
 - 4. Operations: Include the following, as applicable:
 - a. Startup procedures.

- b. Equipment or system break-in procedures.
- c. Routine and normal operating instructions.
- d. Regulation and control procedures.
- e. Control sequences.
- f. Safety procedures.
- g. Instructions on stopping.
- h. Normal shutdown instructions.
- i. Operating procedures for emergencies.
- j. Operating procedures for system, subsystem, or equipment failure.
- k. Seasonal and weekend operating instructions.
- 1. Required sequences for electric or electronic systems.
- m. Special operating instructions and procedures.
- 5. Adjustments: Include the following:
 - a. Alignments.
 - b. Checking adjustments.
 - c. Noise and vibration adjustments.
 - d. Economy and efficiency adjustments.
- 6. Troubleshooting: Include the following:
 - a. Diagnostic instructions.
 - b. Test and inspection procedures.
- 7. Maintenance: Include the following:
 - a. Inspection procedures.
 - b. Types of cleaning agents to be used and methods of cleaning.
 - c. List of cleaning agents and methods of cleaning detrimental to product.
 - d. Procedures for routine cleaning.
 - e. Procedures for preventive maintenance.
 - f. Procedures for routine maintenance.
 - g. Instruction on use of special tools.
- 8. Repairs: Include the following:
 - a. Diagnosis instructions.
 - b. Repair instructions.
 - c. Disassembly; component removal, repair, and replacement; and reassembly instructions.
 - d. Instructions for identifying parts and components.
 - e. Review of spare parts needed for operation and maintenance.

1.6 PREPARATION

A. Assemble educational materials necessary for instruction, including documentation and training module. Assemble training modules into a training manual organized in coordination with requirements in Section 017823 "Operation and Maintenance Data."

B. Set up instructional equipment at instruction location.

1.7 INSTRUCTION

- A. Facilitator: Engage a qualified facilitator to prepare instruction program and training modules, to coordinate instructors, and to coordinate between Contractor and Owner for number of participants, instruction times, and location.
- B. Engage qualified instructors to instruct Owner's personnel to adjust, operate, and maintain systems, subsystems, and equipment not part of a system.
- C. Scheduling: Provide instruction at mutually agreed-on times. For equipment that requires seasonal operation, provide similar instruction at start of each season.
 - 1. Schedule training with Owner, through Construction Manager, with at least seven days' advance notice.
- D. Training Location and Reference Material: Conduct training on-site in the completed and fully operational facility using the actual equipment in-place. Conduct training using final operation and maintenance data submittals.
- E. Evaluation: At conclusion of each training module, assess and document each participant's mastery of module by use of a demonstration performance-based test.
- F. Cleanup: Collect used and leftover educational materials and give to Owner. Remove instructional equipment. Restore systems and equipment to condition existing before initial training use.

1.8 DEMONSTRATION AND TRAINING VIDEO RECORDINGS

- A. General: Engage a qualified videographer to record demonstration and training video recordings. Record each training module separately. Include classroom instructions and demonstrations, board diagrams, and other visual aids, but not student practice.
- B. Digital Video Recordings: Provide high-resolution, digital video in MPEG format, produced by a digital camera capable of recording in full HD mode.
 - 1. Submit video recordings on CD-ROM or thumb drive to the Owner as part of the closeout documents and by uploading to web-based Project software site.

PART 2 - PRODUCTS

PART 3 - EXECUTION

END OF SECTION 017900