

**PROJECT MANUAL
VOLUME 1 of 1**

DIVISIONS 00-02, 04-10, & 12

READING SCHOOL DISTRICT



13TH & UNION ELEMENTARY RENOVATIONS

MARCH 2025



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CHA Project No.: 0932511



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Reading, PA 19606
AEM Project No. 25002.00

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SECTION 00 01 15 - LIST OF DRAWINGS

The List of Drawings indicated on the Drawing Cover Sheet form a part of this Contract, as set forth in the accompanying Conditions of the Contract for Construction.

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SECTION 00 11 13 – ADVERTISEMENT FOR BIDS

The Reading School District is soliciting sealed bids for the 13th & Union Elementary School Renovations ("Project") located in Reading, Berks County, Pennsylvania. Sealed Bids for all contracts shall be delivered no later than 1:30 PM prevailing time on Tuesday, April 1, 2025, to the District Administration Building, 800 Washington Street, Reading, PA 19601, at which time bids will be publicly opened and read.

A **MANDATORY** pre-bid conference will be held at 13th & Union Elementary School, 1600 North 13th Street, Reading, PA 19604, at **10:00 AM** prevailing time on **Monday, March 17, 2025**. Attendance by all Prime Contract Bidders is mandatory.

Construction will be bid for the following Prime Contract:

Contract No. 1: General Construction

The Project Architect is AEM Architects, Inc., 3700 Perkiomen Avenue, Reading, PA 19606, Phone: 610-779-3220. The Project Construction Manager is CHA, 1 East Broad Street, Suite 310, Bethlehem, PA 18018, Phone: 610-865-3000.

Contracts 1 through 4: To bid the Project, prospective bidders must obtain the Contract Documents in PDF format directly from CHA by contacting dei@chasolutions.com. Documents will be sent electronically after receipt of a non-refundable fee of one hundred dollars (\$75.00). Checks shall be made payable to "CHA" and mailed to 1 E. Broad Street, Suite 310, Bethlehem, PA 18018. Bidders must supply the following information with their request for documents: the contract(s) you are bidding on, company name, contact person, complete address, phone and cellular numbers, and email address. Documents will be available March 10, 2025.

By Resolution of the BOARD OF SCHOOL DIRECTORS
READING SCHOOL DISTRICT

TO APPEAR: SATURDAY, MARCH 8, 2025
SUNDAY, MARCH 9, 2025
SUNDAY, MARCH 16, 2025

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READING SCHOOL DISTRICT
13TH & UNION ELEMENTARY RENOVATIONS
QUALIFICATIONS QUESTIONNAIRE

Date: _____, _____

1. Companies that wish to submit a Bid for this Project must submit this Qualification Statement with their Bids.
2. Only Companies which are determined to be responsible contractors under applicable law will be designated as qualified Bidders.
3. The Instructions to Bidders govern the Owner's consideration of this completed Qualification Statement and any other requirements that will be considered in making an award.
4. All prospective Bidders must complete this form by answering all questions, and supplying all requested documents, using the spaces indicated (with additional pages if necessary) and attaching documents as required and submit the completed form with their bid by the deadline established in the Advertisement or Invitation to Bid.

I. Capability

1. Form of organization (sole proprietorship, partnership, corporation, etc.)

2. Years the organization has been in business as a contractor under its present name.

3. List of all affiliated or subsidiary organizations and companies.

4. List of all organizations and individuals who have a financial interest of or a specified percentage in the company.

5. Any other organization or individual who controls bidding or operation of the organization.

6. Identification of all offices.

7. The numbers, categories, and locations of all employees and officers.

8. The officers, administrators, managers, and superintendents who will be assigned to the project - identification of qualifications, with specific attention to years in present position, years of construction experience, and magnitude and type of work.

9. Any work the organization has performed for the Reading School District.

10. Other public work that the organization has performed in Pennsylvania (up to ten most recent projects). For each, identify the name and address of owner, location of project, nature of contract (prime, sub, etc.), contract amount, change orders, final contract amount, if completed on time, kind of work, and nature of project.

11. Other projects including those consisting of multi-prime contracts on which the organization has served as a prime General Contractor (up to ten most recent projects). For each, identify the name and address of owner, location of project, nature of contract (prime, sub, etc.), contract amount, change orders, final contract amount, if completed on time, kind of work, and nature of project.

12. Other projects for the type of construction that is to be undertaken, performed by the organization at any time. For each, identify the name and address of owner, location of project, nature of contract (prime, sub, etc.), contract amount, kind of work, and nature of project.

13. Projects constructed with Critical Path Method (CPM) or some other form of computerized project scheduling and capabilities that otherwise can be provided. For each, identify the name and address of owner, location of project, nature of contract (prime, sub, etc.), contract amount, kind of work, and nature of project.

14. Projects awarded but which the organization failed to complete. Identify dates, name and address of owner, name and location of project and kind of work, and the reasons the project was not completed.

15. Equipment owned that will be utilized on the project by type, size or capacity, years of service, and condition.

16. Leased equipment that will be utilized on the project by type, size or capacity, years of service, and condition.

17. Portion of the contract to the nearest ten percent (10%) that the bidder expects to perform using its own labor and equipment.

II. Financial Integrity

1. Attach the most recent audited and CPA certified financial statement with certification, date of preparation, name and address of preparer (financial information can be treated as confidential if placed in a sealed envelope and marked as such).

2. Net working capital (current assets over current liabilities) and date of determination.

3. Identification of credit lines, with information on the total lines, amounts drawn down, and amounts remaining.

4. Identification of the contractor's surety for the required performance bond, total bonding capacity, and available bonding capacity. Also list bonding company A.M. Best Rating and Financial Rating.

III. Conduct

1. All felony convictions, all bidding related offenses, and all misdemeanor convictions involving moral turpitude of the organization, its affiliates, its owners holding more than a specified percentage interest, its officers, and its administrators, managers, and superintendents that will be assigned to the project.

2. Debarments, suspensions, and denials of prequalification of the organization for any federal, state, local, or governmental contracting.

3. Construction-related disputes of any kind including lawsuits, arbitrations, mechanics liens, and other claims that the organization has been involved in. Provide a summary of each item.

4. Proceedings of an administrative enforcement nature of whatever kind, including environmental, wage and hour, prevailing wage, employment discrimination, or other kind of proceeding. Provide a summary of each item.

5. List any prevailing wage disputes, investigations, or complaints filed against the firm or any officers.

6. Unpaid obligations to local, state, or federal taxing authorities, including but not limited to income, withholding, and unemployment taxes.

7. Cancellation, termination, or rescission of contracts of insurance or suretyship.

8. Provide all other information requested in accordance with Instructions to Bidders or any other information requested by Owner as part of its investigation.

IV. Safety and Training

1. Provide a copy of your Workmen's Compensation Experience Modification Factor for the past three (3) years.

2. Identify any safety violations, accidents, or injuries on any projects over the last five (5) years.

3. Provide a summary and proof of any training or other programs that are available, endorsed, or paid by your company and made available to employees.

4. Provide a summary of your safety training and compliance programs.

When the Bidder is an individual proprietor:

WITNESS:

Signature of Witness

_____(SEAL)
Signature of Proprietor

Print Name of Proprietor

When the Bidder is a partnership:

Print Name of Partnership

Address

City, State, Zip Code

Phone number with Area Code

WITNESS:

Signature of Witness

_____(SEAL)
General Partner

When the Bidder is a corporation:

Print Name of Corporation

Address

City, State, Zip Code

Phone number with Area Code

ATTEST:

Secretary/Assistant Secretary/
Treasurer/Assistant Treasurer
or other authorized representative

BY: _____ (SEAL)
President/Vice President or
other authorized representative

Print name of corporate representative

(CORPORATE SEAL)

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SECTION 001154 – AGREEMENT OF SURETY

KNOW ALL MEN BY THESE PRESENTS, that we, _____, as Surety, a corporation existing under the laws of the State of _____, and authorized to transact business in the Commonwealth of Pennsylvania hereby agrees intending to be legally bound hereby, to execute and deliver to the READING SCHOOL DISTRICT, within the time limit specified in the Contract Documents, the Performance Bond and Payment Bond in the forms included in the Contract Documents each in an amount of 100% of the Contract Sum, in favor of the READING SCHOOL DISTRICT, as required for the faithful performance and proper fulfillment of the contract for the Renovations Project at the 13th & Union Elementary School, 1600 N 13th Street, Reading, Berks County, Pennsylvania, on behalf of _____ (hereinafter called the Bidder) provided that the above contract be awarded to the Bidder within sixty (60) days after the date of opening of the bids or otherwise as set forth in the Instructions to Bidders.

Surety further agrees that should the Surety, after notification of intent to make such award, omit or refuse to execute the required bonds and agreement, then the Surety shall pay to the Reading School District, hereinafter called the Obligee, any difference between the total amount specified in said Bidder's proposal for the required work and the amount of which said Obligee may procure the same work, if the latter amount be in excess of the former, plus any advertising, architectural, legal, and other expenses incurred by Obligee; provided, however, that the obligations of Surety hereunder shall not exceed the amount of bid security provided by the Bidder together with interest.

Dated: _____, 20____
(CORPORATE SURETY)

WITNESS OR ATTEST:

By: _____
Attorney-in-Fact*

NAME: _____
(Please type)

*Attach an appropriate Power of Attorney, dated as of the same date as this Agreement, evidencing the authority of the Attorney-in-Fact to act on behalf of the Corporation.

END OF SECTION

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SECTION 00 11 55 – LETTER OF INSURER

DATE: _____

TO: MR. WAYNE GEHRIS, CHIEF FINANCIAL OFFICER
READING SCHOOL DISTRICT
800 WASHINGTON STREET
READING, PA 19601

Dear Mr. Gehris:

The undersigned insurance agent, licensed to do business in the Commonwealth of Pennsylvania and authorized to issue this letter on behalf of the following insurance company or companies:

hereby represents that if

(Insert name of Bidder)

is awarded the contract for the construction of the project, as is described in the Contract for Construction, then the above-named insurance company or companies will issue insurance, naming Reading School District, CHA and all consultants, AEM Architects, Inc. and all consultants, the Berks County Conservation District, the City of Reading and its consultants, and each of their/its officers, agents, and employees as additional insured, for the coverages and in the amounts required by the Contract Documents, as set forth in Article 11 of the General Conditions.

(Name of Agent)

By: _____
(Authorized Representative)

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SECTION 00 21 13 - INSTRUCTIONS TO BIDDERS

1. DEFINED TERMS

Terms used in these Instructions to Bidders, which are defined in the General Conditions of the Contract for Construction (the "General Conditions"), have the meanings assigned to them in the General Conditions. The term "Bidder" means one who submits a Bid directly to Owner, as distinct from a sub-Bidder, who submits a bid to a Bidder. The term "Successful Bidder" means the lowest, qualified, responsible, and responsive Bidder to whom Owner (on the basis of Owner's evaluation as hereinafter provided) makes an award. The term "Bidding Documents" includes the Advertisement or Invitation to Bid, Instructions to Bidders, the Bid Form, and the Contract Documents (including all Addenda issued prior to receipt of Bids). The numbering system refers to Articles.

2. COPIES OF BIDDING DOCUMENTS

- 2.1 In order to Bid the Project, complete sets of PDF documents must be obtained, in the number and for the deposit fee, if any, stated in the Advertisement or Invitation to Bid. The fee for Bidding Documents is non-refundable.
- 2.2 Complete sets of Bidding Documents must be used in preparing Bids; the Owner, Architect, or Construction Manager assume no responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents. Bidding Documents consist of Contract Documents (and all reference standards), specifications, addenda, and drawings. Bidder is responsible to make sure that the set of Bidding Documents is complete and that any printed contract document is legible and represents properly all the information as represented in the PDF file.
- 2.3 Owner, Architect, and Construction Manager, in making copies of the Bidding Documents available on the above terms, do so only for the purpose of obtaining Bids for the Work and do not confer a license or grant for any other use.

3. QUALIFICATIONS OF BIDDERS

3.1 **The following information must be completed and submitted with the appropriate bid form.**

- 3.1.1 The Request for Qualifications questionnaire found in Section 001153. Use additional pages to complete any of the sections if more space is needed. Bidder's failure to fully and accurately disclose all information requested in the Request for Qualifications questionnaire shall constitute grounds for Bidder's disqualification from being considered the lowest responsive, responsible Bidder.
 - 3.1.2 Executed Agreement of Surety found in Section 001154 and appropriate Power of Attorney.
 - 3.1.3 Executed Letter of Insurer found in Section 001155.
 - 3.1.4 Executed and notarized Non-Collusion Affidavit found in Section 004519.
 - 3.1.5 Executed Bid Bond found in Section 004313.13, or other Bid Security as referenced in Article 6 of this Section.
- 3.2 To demonstrate qualifications to perform the Work, each Bidder must be prepared to submit within five (5) days of Owner's request, written evidence such as financial data, insurance certificates, previous experience of the Bidder and its assigned personnel, present commitments, and any other information that may be requested by the Owner. Each Bid must contain evidence of Bidder's qualification to do business in the Commonwealth of Pennsylvania, or covenant to obtain such

INSTRUCTIONS TO BIDDERS

qualification prior to award of the Contract. Owner reserves the right to reject Bidder if he cannot satisfy all of the Qualification Requirements, including those listed in the Technical Specifications.

- 3.3 In determining the lowest responsible Bidder, the Owner will consider the integrity, efficiency, and experience of the Bidder and its assigned personnel, promptness, current workload, financial capability, performance on recent projects, references from owners, architects, and engineers, list of potential sub-contractors, schedule of values, and ability to successfully and timely complete the Project. The apparent low Bidder must demonstrate competency and provide any or all of the above information requested within five (5) days of request. Owner reserves the right to reject the Bidder as non-responsive if all the information is not received on time and/or does not reasonably satisfy the Owner's evaluation process.
- 3.4 In addition to all the requirements specified in Articles 3.1, 3.2 and 3.3 regarding qualifications of Bidders, the Owner will evaluate Bidders using the following additional criteria:
 - 3.4.1 The Bidder and its assigned personnel must have successfully performed a minimum of 3 previous Pennsylvania public school projects within the last 5 years of similar type or a contract value of at least seventy percent (70%) of the amount of the Bidder's Base Bid. Provide references including telephone number and contact person.
 - 3.4.2 The Bidder shall perform not less than ten percent (10%) of the actual construction Work with staff employed directly by the Bidder. Project management shall NOT be included in this percentage.
 - 3.4.3 The Bidder, or its assigned personnel, must have successfully performed at least 3 Pennsylvania public school projects within the last 5 years where they have managed multiple trades and coordinated and scheduled all the activities for projects as per Article 3.4.1. Provide references including telephone number and contact person.
 - 3.4.4 An Agreement of Surety certifying that the Surety Company is committed to provide the Bidder with a Performance Bond and Payment Bond each in the amount of one hundred percent (100%) of the contract amount. The Surety Company must have an AM Best rating of A- or higher and a financial rating of Class X or higher.
 - 3.4.5 The Bidder's performance on previous projects including claims, litigation, coordination of work, staffing, and timely completion. If it is determined that the Bidder has not fully performed previous projects in a coordinated, timely, and good and workmanlike manner, the Owner reserves the right to reject the Bid.
 - 3.4.6 The Bidder shall also refer to Articles 11 and 16 below.
- 3.5 Owner shall be entitled to recover attorneys' fees and costs incurred in defending any unsuccessful challenge brought by a Bidder in its own name or as proxy for a School District resident to Owner's award of a contract to another Bidder, from the Bidder who brought the unsuccessful challenge as more fully set forth in Section 13.8.1 of the General Conditions of Contract.
- 3.6 All Bidders should be aware that the Owner encourages and promotes MBE (Minority Business Enterprise) and WBE (Women's Business Enterprise) participation for this Project. Bidders are encouraged to do their own research on the qualifications, and other factors, in preparing a comprehensive and responsible bid.

4. EXAMINATION OF CONTRACT DOCUMENTS AND SITE

- 4.1 It is the responsibility of each Bidder, before submitting a Bid, to:
 - 1. Examine the Contract Documents thoroughly.
 - 2. Visit the site to become familiar with local conditions that may affect the cost, progress, performance, or furnishing the Work.

INSTRUCTIONS TO BIDDERS

3. Consider federal, state, and local laws and regulations that may affect cost, progress, performance, or furnishing of the Work.
4. Confirm the ability to work in the City of Reading and obtain all required contractor licenses, business privilege license and to meet any and all current requirements to commence work in accordance with the contract schedule.
5. Study and carefully correlate Bidder's observations with the Contract Documents.
6. Notify Architect of any conflicts, errors, or discrepancies discovered in the Contract Documents.

4.1.1 REVIEW OF DRAWINGS AND SPECIFICATIONS

- A. Bidders shall thoroughly examine and be familiar with the Specifications and Drawings. The failure or omission of any Bidder to receive or examine any form, instrument, document, or visit the site and acquaint himself with conditions there existing, shall in no way relieve any Bidder from obligation with respect to his Bid. By submitting a Bid, the Bidder agrees and warrants that he has examined the site and the Specifications and Drawings and, where Specifications and/or Drawings require in any part of the Work a given result to be produced, that the Specifications and Drawings are adequate, the required result can be produced under the Specifications and Drawings, and that the proposed schedule affords the Bidder sufficient time to complete the Work if award the Contract. No claim for any additional costs or additional time will be allowed because of alleged impossibilities in the production of the results specified or because of inadequate or improper plans and specifications and whenever a result is required, the successful Bidder shall furnish any and all extras and make any changes needed to produce the required result for the sum stated in the form of proposal.
- B. Should any Bidder find discrepancies, duplications, errors, or omissions in the documents or have doubt as to the meaning expressed by the Contract Documents, he shall make inquiry at once in writing to the Architect and/or Construction Manager. Where changes, corrections, or clarifications to Contract Documents are deemed necessary by the Architect and/or Construction Manager, he will issue written Addenda accordingly. Addenda shall be a part of the Contract Documents. No oral, telephone, or letter instructions will be considered as having effect upon the Contract Documents; Addenda only shall constitute change to them. Bidders and sub-Bidders are urged to make early examination of Contract Documents and make inquiries about them if necessary, even though prices may not be determined until late in the bidding period. No claim for additional cost or time will be permitted for any discrepancies, duplications, errors, or omissions in the Contract Documents for any such matters that were apparent to the or discoverable by the Bidder though a complete review of the Contract Documents prior to submission of the bid.

- 4.2 The site may be made available for visits at the pre-bid conference and at the other specific designated dates and times determined at the pre-bid.
- 4.3 Information and data reflected in the Contract Documents with respect to underground facilities at or contiguous to the site is based upon information and data furnished to Owner and Architect and/or Construction Manager by owners of such underground facilities or others. Owner and Architect and/or Construction Manager do not assume responsibility for the accuracy or completeness of the location of underground facilities at or contiguous to the site. Successful Bidder shall verify the location of all underground utilities prior to any excavation.
- 4.4 Successful Bidder for the General Contract is responsible, on behalf of the Owner, for providing the physical markings of all existing utilities including those on site as indicated on the drawings or that may be identified in the field. The locations shown on the drawings are approximate. The Bidder must include in his proposal the cost for hand-dug test holes, or other means, to ascertain the precise position of such underground facilities on the site owned by the Owner. This verification should be performed for any utilities to be relocated, removed, modified, or that may otherwise interfere with planned work. The utilities in the public right of way will be identified and marked by the appropriate facility owner as per the requirements of the PA One Call Act as amended. Physical layout is to be

INSTRUCTIONS TO BIDDERS

performed in full compliance with the PA One Call PA Act 287 of 1974 as amended by Act 18 of 1996 and Act 50 of 2017.

- 4.5 The Owner, Architect, and Construction Manager will not be responsible for the adequacy of data furnished to prospective Bidders on subsurface conditions, underground facilities, and other physical conditions. This information is provided based on information available. Bidder assumes responsibility for verifications, adjustments, and modifications that may be required since this is generally recognized as inherent to the work of the Contract Documents.
- 4.6 Before submitting a Bid, each Bidder will, at Bidder's expense, make or obtain any additional examinations, investigations, explorations, tests and studies, and obtain any additional information and data which pertain to the physical conditions (surface, subsurface, and underground facilities) at or contiguous to the site or otherwise which may affect cost, progress, performance, or furnishing the Work and which Bidder deems necessary to determine its Bid for performing and furnishing the Work in accordance with the time, price, and other terms and conditions of the Contract Documents.
- 4.7 On request in advance, Owner will provide each Bidder access to the site to conduct such explorations and tests, as each Bidder deems necessary for submission of a Bid. Bidder shall fill all holes, clean up, and restore the site to its former condition upon completion of such explorations.
- 4.8 The lands upon which the Work is to be performed, rights-of-way, and easements for access thereto and other lands designated for use by the Bidder in performing the Work are identified in the Contract Documents. All additional lands and access thereto required for temporary construction facilities or storage of materials and equipment are to be provided by Bidder. Easements for permanent structures or permanent changes in existing structures are to be obtained and paid for by Owner unless otherwise provided in the Contract Documents.
- 4.9 The submission of a Bid constitutes an incontrovertible representation by Bidder that Bidder has complied with every requirement of the Bidding Documents and that without exception, the Bid is premised upon performing and furnishing the Work required by the Contract Documents and such means, methods, techniques, sequences, or procedures of construction as may be indicated in or required by the Contract Documents, and that the Contract Documents are sufficient in scope and detail to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

5. INTERPRETATIONS AND ADDENDA

- 5.1 All questions about the meaning or intent of the Contract Documents are to be directed as listed below. Interpretations or clarifications considered necessary by the Architect in response to such questions will be issued by Addenda mailed or delivered to all parties recorded by Architect and/or Construction Manager as having received the Bidding Documents. Questions received less than five (5) days prior to the date for opening of Bids may not be answered. Only interpretations or clarifications issued by formal written Addenda will be binding. Oral or other interpretations or clarifications will be without legal effect.
- 5.2 Addenda may also be issued at any time to modify the Bidding Documents as deemed advisable by Construction Manager, Owner, or Architect.
- 5.3 All questions must be submitted in writing as follows. Phone calls are not permitted.
 - 5.3.1 All questions must be sent to:
Phil Leinbach (pmleinbach@aem-arch.com)
AEM Architects, Inc. (AEM)

Todd Whiskeyman (tcwhiskeyman@aem-arch.com)
AEM Architects, Inc. (AEM)

INSTRUCTIONS TO BIDDERS

5.3.2 **All questions must be copied to:**

Elisabeth Hamscher (ehamscher@chasolutions.com)
CHA

Jessica Deegan (jdeegan@chasolutions.com) Erin Shober (eshober@chasolutions.com)
CHA CHA

6. BID SECURITY

- 6.1 A Bid shall be rejected unless accompanied by a Bid Security in the amount of ten percent (10%) of the total of the Base Bid. Bid Security shall be in the form of a certified check or bank cashier's check payable to Owner or a Bid Bond in the form set forth herein, naming as Oblige, the Owner.
- 6.2 The Owner may declare the Bid Security forfeited to the Owner if, following such issuance of a Notice of Intent to Award to the apparent lowest responsible Bidder, such Bidder fails to deliver the items required for complete evaluation and for contract execution required by the Bidding Documents and within the time required by the Bidding Documents.
- 6.3 If Bid Security is submitted in the form of a Bid Bond, the Bid Bond shall be submitted on the form referenced in the Bidding Documents, and the Attorney-in-Fact who executes the bond on behalf of the surety shall affix to the bond a certified and current copy of its Power of Attorney, authorizing said Attorney-in-Fact to act on behalf of the surety. The Power of Attorney must be dated the same date as the Bid Bond, or if dated prior to the date of the Bid Bond, the Power of Attorney shall have a Certification that certifies that the Power of Attorney remains in full force and effect as of the date of the Bid Bond, and both the Bid Bond and Power of Attorney shall have affixed the raised corporate seal of the surety. The Bid Bond form must be executed by a surety licensed and authorized to conduct business as a surety within the Commonwealth of Pennsylvania, have an AM Best rating of 'A-' or higher and a financial rating of Class X or higher and shall be named in the current list of companies holding Certificates of Authority as acceptable sureties on federal bonds and/or as acceptable reinsuring companies as published in Circular 570 (as amended) by the Audit Staff, Bureau of Government Financial Operations, U.S. Treasury Department, and the amount of the bond shall not exceed the underwriting risk of such surety set forth in said circular of revisions thereof. Any bond must be acceptable to Owner. If the Bid Security is submitted in the form of a certified check or bank cashier's check, the Bidder shall submit an Agreement of Surety certifying that a surety company will provide the Bidder with a Performance Bond and Payment Bond each in the amount of one hundred percent (100% of the Contract Sum). The Agreement of Surety shall be in the form included in the Bidding Documents. The Agreement of Surety shall be executed by a surety satisfying the requirements set forth in the Contract Documents.
- 6.4 The Bid Security of Bidders will be returned (unless forfeited as stated above) at the Bidder's request, upon (1) the execution of the Agreement Between Owner and Contractor by Owner, or (2) the rejection of all Bids by Owner, or (3) the expiration of the firm bid period set forth in Section 17.2 of these Instructions to Bidders. The Owner shall not be liable for any interest on Bid Security which is held in accordance with these Instructions to Bidders.

7. NON-COLLUSION AFFIDAVIT

More than one proposal for the contract from an individual, partnership, corporation, or an association under the same or different name will be grounds for the rejection of all proposals in which such Bidder is interested. Any or all proposals will be rejected if there is reason for believing that collusion exists among any of the Bidders. Participants in such collusion will not be considered in future proposals. A Non-Collusion Affidavit shall be executed, notarized, and submitted with the Bidder's proposal using the form set forth in Section 004519.

INSTRUCTIONS TO BIDDERS

8. CONTRACT TIME

The Bidder acknowledges that a condition of the Contract is that time is of the essence of the Contract and the number of calendar days within which, or the dates by which, the Work is to be substantially completed and finally completed and ready for final payment (the Contract Time) are set forth in the Contract Documents and are accepted by the Bidder without exception or conditions.

9. LIQUIDATED DAMAGES

Provisions for liquidated damages are set forth in the Contract Documents.

10. SUBSTITUTIONS OR "OR-EQUAL" ITEMS

The various materials and products specified in the specifications by name or description are given to establish a minimum acceptable standard of quality and of cost for bid purposes. When proprietary names are used, and there does not follow a "listing" of acceptable approved manufacturers and/or products, then the proprietary named item must be included in the Bid proposal without substitution. When proprietary names are used, and there follows a "listing" of acceptable "approved" manufacturers and/or products, then the Bidder may base the Bid on either the proprietary product or any from the "listing" acceptable "approved" manufacturers and/or products for the Base Bid and alternate Bid as indicated. When proprietary names are used, and there are alternates on the Bid form, then the Bidder shall base his Bid on the proprietary product or any from the "listing" of approved manufacturers and/or products for the Base Bid and alternate bid(s) as indicated. Bidders may request approval prior to Bid opening of non-listed items as substitutions in accordance with these specifications and Instructions to Bidders. No substitutions will be considered prior to receipt of Bids unless written request for approval has been received by the Architect only from prime contract Bidders at least ten days prior to the date for receipt of Bids. Such requests shall be in accordance with substitution request procedure listed in Specification Section 002625, and any other requirements at the Architect, Owner, or Construction Manager's discretion. Unless the Bidder obtains approval of a substitution prior to the submission of Bids, the Bidder must furnish the specified or listed item regardless of whether or not they were included in his Bid. The Bidder shall be required to coordinate and pay for any conditions which are required to accommodate the listed or alternate item.

In order to prequalify as a substitution, all alternative manufacturers' information should be submitted by a prime contract Bidder and should include:

- Technical, warranty, and manufacturer's data specified. A line-by-line comparison of all specified items in the Specification must be made. Submission must be made ten (10) days prior to Bid opening.
 - Architect will review submission and any acceptable substitutions will be listed in an addendum. All manufacturers not specifically approved as a substitution by addendum shall not be considered.
 - Only manufacturers that are qualified prior to the Bid opening will be considered acceptable manufacturers.
- 10.1 The approval of a substitution shall be at the sole determination of the Architect and upon approval of the Construction Manager and Owner, if a proposed substitution is approved prior to receipt of Bids, such approval will be set forth in an addendum. Bidders shall not rely upon approvals in any other manner. If a proposed substitution is not specifically approved by addendum, they are rejected.
- 10.2 No substitutions will otherwise be considered after the Contract award absent proof that the specified item is not commercially available and cannot be provided through no fault of the Bidder.
- 10.3 No substitutions will be considered for approval prior to the opening of Bids unless received by the Architect no less than ten (10) days before Bids are due.

11. SUBCONTRACTORS, SUPPLIERS, AND OTHERS

- 11.1 All Subcontractors proposed for the project shall have been in business for a minimum of five (5) years and must have a successful record of completing, at a minimum, five (5) projects of similar size and cost. Subcontractors must also have business insurance including commercial general liability insurance, automotive liability insurance, and worker's compensation insurance, adequate resources of manpower, tools, and equipment and must meet the IRS criteria for an independent contractor. Contractors shall reference the IRS website for the definition of an independent contractor: <https://www.irs.gov/businesses/small-businesses-self-employed/independent-contractor-self-employed-or-employee>
- 11.2 At the Owner's request, the identity of certain Subcontractors, suppliers, and other persons or organizations (including those who are to furnish the principal items of material and equipment) is to be submitted to Owner in advance by the apparent Successful Bidder, and any other Bidder so requested. Within five (5) days after the Bid Opening, submit to Owner a list of all such Subcontractors, suppliers, and other such persons or organizations proposed for those portions of the Work for which such identification is required. An experience statement shall accompany such list with pertinent information regarding similar projects and other evidence of qualification for each such Subcontractor, supplier, person, or organization if requested by Owner. If Owner and Construction Manager, after due investigation, have reasonable objections to any proposed Subcontractor, supplier, and other person or organization, then Owner may, before the Notice of Award is given, request the apparent Successful Bidder to submit an acceptable substitute without an increase in Bid Price.
- 11.3 If apparent Successful Bidder declines to make any such substitution, Owner may award the Contract to the next lowest Bidder that proposed to use acceptable Subcontractors, suppliers, and other persons and organizations. Provided the apparent successful Bidder does not challenge Owner's award to the next lowest Bidder, declining to make requested substitutions will not constitute grounds for sacrificing the Bid Security of any Bidder.

12. BID FORM

- 12.1 **THE BID FORM SHALL NOT BE ALTERED. ALTERED BID FORMS MAY BE CONSIDERED NON-RESPONSIVE AND MAY BE REJECTED.**
- 12.2 The Bid Form is included with the Bidding Documents; NO additional copies will be provided.
- 12.3 All blanks on the Bid Form must be completed in ink or by type.
- 12.4 Bids by corporations must be executed in the corporate name by the president or a vice-president (or other corporate officer accompanied by the evidence of authority to sign) and the corporate seal must be affixed and attested by the secretary or an assistant secretary. The corporate address and state of incorporation must be shown below the signature.
- 12.5 Bids by limited liability companies must be executed in the limited liability company name and signed by an authorized member or manager, whose title must appear under the signature, and the official address of the limited liability company must be shown below the signature.
- 12.6 Bids by partnership must be executed in the partnership name and signed by a partner, whose title must appear under the signature, and the official address of the partnership must be shown below the signature.
- 12.7 All names must be typed or printed below the signature.
- 12.8 The Bid shall contain an acknowledgment of receipt of all Addenda (the numbers of which must be filled in on the Bid Form). Properly issued Addenda shall be binding upon all Bidders, regardless of whether a Bidder fails to acknowledge receipt.

INSTRUCTIONS TO BIDDERS

- 12.9 The street address, email address, and telephone number for communications regarding the Bid must be shown.
- 12.10 If there is a discrepancy between the written words and numerical figures written on the bid form, the written words shall prevail.
- 12.11 Discrepancies in the multiplication of units of Work and unit prices will be resolved in favor of the correct sum.

13. ALTERNATES

All requested alternates as defined in the Bidding Documents shall be bid. Provide prices for those alternates indicated on the Bid Form. Include changes to Contract Sum. Methods for bidding alternates are as specified in Division 01.

- 13.1 The Bidder agrees to modify the Base Bid by the amounts stated for alternates as requested on the Bid Form and specified in the Bidding documents.
- 13.2 The Owner shall have the right to accept or reject alternates in any order or combination, and to determine the low Bidder on the basis of the sum of the Base Bid and alternates accepted.
- 13.3 Alternate work shall be completed within the same time frame as indicated on the Contract Documents for associated work. No alternate shall modify the project material allowances unless stated within the allowance description.
- 13.4 If there is no change in the contract amount for any alternate write "NO CHANGE" or "Zero (0)" in the blank.
- 13.5 If there is no bid for the alternate write "NO BID" in the blank. If Owner selects an alternate not bid, the Bidder will not receive the award.
- 13.6 Enter the amount for each alternate on the line pre-marked as "ADD" and/or "DEDUCT". Where both the words "ADD" and "DEDUCT" are provided for an alternate, strike through one of the words so that the appropriate word remains.
- 13.7 The failure to enter an amount of "NO CHANGE" or "NO BID" in the blanks for an alternate shall be treated conclusively as a Bid of zero dollars for the work described in the alternate.

14. UNIT PRICES

Provide unit prices described on the Bid Form in accordance with requirements specified in the Bid Form and bidding requirements. Unit prices will be used for adjustment of the Contract Sum if any are required. The Owner reserves the right to reject any unit prices bid.

15. ALLOWANCES

Include all allowances listed on the Bid Form(s) and Bidding Documents in the Base Bid price. Do not adjust allowances for any alternates unless specifically listed in the alternate.

INSTRUCTIONS TO BIDDERS

16. SUBMISSION OF BIDS

- 16.1 Bids shall be submitted at the time and place indicated in the Advertisement or Invitation to Bid and shall be enclosed in an opaque, sealed envelope, marked with the Project title, Contract No., and, if applicable, the designated portion of the Project for which the Bid is submitted. Envelopes shall contain the name and address of the Bidder and accompanied by the documents listed in Article 3.1. If the Bid is sent through the mail or other delivery system, the sealed envelope shall be enclosed in another envelope with the notation "BID ENCLOSED" on the face of it. Two original copies of all documents are required to be submitted at the time of Bid. Receipt of Bid is acknowledged when delivered to the Owner and not when mailed.

17. MODIFICATIONS AND WITHDRAWAL OF BIDS

- 17.1 Bidders will be given permission to withdraw any proposal after it has been received by the Owner, provided the Bidder or his agent duly authorized to act for him, personally appears at the Owner's Business Office with a written request signed by the Bidder prior to the time set forth for the opening of the Bids. At the time set for the opening of Bids, the withdrawn proposal will be returned to the Bidder. Such withdrawn proposals will not be opened or read at the Bid opening. Bids may not be modified after submittal.
- 17.2 Bids shall be irrevocable for sixty (60) days after the actual day of opening thereof unless the Owner is delayed in awarding the Contract due to the failure to receive a required approval/permit from one or more reviewing bodies/governmental agencies having jurisdiction over the Project, the sale of bonds, or the award of a grant, in which case, Bids shall be irrevocable for 120 days after Bid opening. Absent an exception for extending time for the award of the Contract, the Owner and the lowest responsible and responsive Bidder may mutually agree in writing to extend the time for the Owner to award the Contract.
- 17.3 Neither the designation of the apparent lowest responsible Bidder, nor the issuance of a Notice of Intent to Award to the Bidder so designated shall operate to release any other Bidder from its Bid. Each such other Bidder, unless earlier released from its Bid by specific action of the Owner, shall remain bound by its Bid until the earlier of (1) the date of actual execution by Owner of the Agreement Between Owner and Contractor with the Bidder whom the Award of Contract has been made, or (2) the expiration of the firm Bid period stipulated above.
- 17.4 Negligence by the Bidder in preparing his Bid confers no right of withdrawal or modification of his proposal after such proposal has been opened. No claims on account of mistakes or omissions of any proposal will be considered. Notwithstanding the above, a Bidder may withdraw his Bid within two (2) business days after the Bid opening time in accordance with the Public Contracts – Withdrawal of Bids Law, Act of January 23, 1974, P.L. 9, No. 4, 73 P.S. §1601 et seq., as amended. A Bid which has been opened may be withdrawn only in accordance with the causes set forth in said Act and for no other reasons. Strict compliance with said Act is required to withdraw a Bid after opening.

18. OPENING OF BIDS

- 18.1 Bids will be opened and (unless obviously non-responsive) read aloud publicly. An abstract of the amounts of the Base Bids and major alternate(s) (if any) will be made available to Bidders after the opening of the Bids.

19. AWARD OF CONTRACT

- 19.1 The Owner's intent is to enter into Contracts with the lowest responsible and qualified Bidders. Owner reserves the right to award the Base Bid and any combination or none of the alternates which Owner, in its sole discretion, deems to be in the best interest of the Owner.

INSTRUCTIONS TO BIDDERS

- 19.2 The Owner reserves the right to reject any and all bids. The Owner reserves the right to waive informalities or technicalities in any Bid in accordance with law. The Owner reserves the right to disregard all nonconforming, non-responsive, unbalanced, or conditional bids. Also, Owner reserves the right to reject the Bid of any Bidder if Owner believes that it would not be in the best interest of the Project to make an award to that Bidder, whether because the Bid is not responsive or the Bidder is unqualified or of doubtful financial ability or fails to meet any other pertinent standard or criteria established by the Bidding Documents. Discrepancies in the multiplication of units of Work and unit prices will be resolved in favor of the correct sum.
- 19.3 In evaluating Bids, Owner will consider the qualifications of such Bidders (see Article 3), whether or not the Bids comply with the prescribed requirements, and such alternates, unit prices and other data, as may be requested in the Bid Form or prior to the Notice of Award.
- 19.4 Owner may consider the qualifications and experience of Subcontractors, suppliers, and other persons or organizations proposed for any portions of the Work requested by Owner. Owner also may consider the operating costs, maintenance requirements, performance data, and guarantees of major items of materials and equipment proposed for incorporation in the Work when such data is required to be submitted prior to the Notice of Award.
- 19.5 Owner may conduct such investigations as Owner deems necessary to assist in the evaluation of any Bid and to establish the responsibility, qualification, and financial ability of Bidders, subcontractors, suppliers, and other persons or organizations to perform and furnish the Work in accordance with the Contract Documents to Owner's satisfaction within the prescribed time.
- 19.6 If the Contract is to be awarded, Owner will give the Successful Bidder a Notice of Intent to Award within sixty (60) days after the day of Bid opening unless extended as set forth in these Instructions to Bidders.
- 19.7 The Owner reserves the right to waive non-material defects, informalities, or technicalities in any Bid in accordance with the law.

20. CONTRACT SECURITY & INSURANCE

- 20.1 The General Conditions set forth the Owner's requirements as to Performance Bonds, Payment Bonds, and insurance requirements.
- 20.2 The apparent low Bidder must provide Payment and Performance Bonds in the forms included in the Contract Documents and all Certificates of Insurance or other insurance information as required pursuant to the General Conditions of the Contract within ten (10) days of the issuance of Notice of Intent to Award. **Other bond forms will not be accepted.** Failure of the apparent low Bidder to provide original executed Payment and Performance Bonds in the required form within the required time will result in forfeiture of the Bid Security.

21. SIGNING OF AGREEMENT

When Owner issues a Notice of Intent to Award to the Successful Bidder, the Successful Bidder shall within ten (10) days thereafter, deliver to the Owner, four (4) original copies of the required bonds, insurance certificates, and any other documents that may be requested with the Notice of Intent to Award. Within ten (10) days thereafter, the Construction Manager will deliver four (4) agreements to Successful Bidder. The Successful Bidder shall sign the agreements and return all original documents to the Construction Manager. The Construction Manager will forward the agreements to the Owner for signature. The Owner will return one (1) signed agreement to the Successful Bidder and Construction Manager.

22. RETAINAGE

Retainage will be in accordance with the Contract Documents. Reference Article 9 of the General Conditions.

INSTRUCTIONS TO BIDDERS

23. PREVAILING WAGES

Pennsylvania Prevailing wage rates will apply to this project. The Contractor and its subcontractors shall comply with the provisions, duties, obligations, remedies, and penalties of the Pennsylvania Prevailing Wage Act, 43 P.S. § 165-1 et seq. which is incorporated herein by reference as if fully set forth herein. The general prevailing minimum wage rates, as determined by the Secretary of Labor and Industry shall be paid for each craft or classification of all workmen needed to perform work on the Project during the term hereof for the locality in which the work is to be performed. Reference Article 16.3 of the General Conditions.

24. COMPETENT WORKMEN

No person shall be employed to perform any work under the Contract if they are not legally eligible to be employed under applicable state and federal law or if they are not a trained, competent workman, or mechanic, as applicable. For purposes of this Section, no workman or mechanic, as applicable, shall be regarded as competent unless he shall be duly skilled in the applicable branch of labor, and paid the applicable prevailing wage pursuant to Article 16.3 of the General Conditions.

24.1 The Commonwealth of Pennsylvania enacted Act 141 of 2022, 71 P.S. Secs. 656.1-656.11, known as the Public Works Employment Verification Act ('the Act' or 'Act 141') which requires all public work contractors and subcontractors to utilize the Federal Government's E-Verify system to ensure that all employees performing work on public work projects are authorized to work in the United States. The Contractor and its Subcontractor (as such term is defined in the Act) are required to comply with the Act and the Statement of Policy as published in the Pennsylvania Bulletin, July 22, 2023, and effective January 3, 2023. Reference Article 16.4 of the General Conditions. The Public Works Employment Form (E-Verify) is included as Exhibit ITB-A to these Instructions to Bidders.

24.2 Criminal History and Child Protective Service Information: Prior to commencing the Work, the Contractor shall supply the Owner with state and federal criminal history reports and child abuse clearances for all employees, agents, and Subcontractors who will be on the Owner's property. Refer to Article 16.10 of the General Conditions for clearance requirements. Clearance forms are included as Exhibits ITB-B, ITB-C, ITB-D, ITB-E, and ITB-F to these Instructions to Bidders.

25. PENNSYLVANIA HUMAN RELATIONS ACT 222:

Reference Article 16.2 of the General Conditions.

26. NON-DISCRIMINATION / SEXUAL HARASSMENT:

Reference Article 16.9 of the General Conditions.

27. ANTI-POLLUTION LEGISLATION

Reference Article 16.7 of the General Conditions.

28. EROSION CONTROL

The Successful Bidders shall comply with all rules and regulations of Chapter 102, Title 25 of Pennsylvania Code, relating to Soil Erosion and Sedimentation Control. Reference Article 16.8 of the General Conditions.

29. PUBLIC WORKS CONSTRUCTION CONTRACTS

INSTRUCTIONS TO BIDDERS

In consideration of the funds awarded and activities funded under the Contract which involves construction, reconstruction, alteration, repair, improvement, or maintenance of a building, structure, or improvement ("The Work"), the Successful Bidder agrees to perform in accordance with the following:

- 29.1 Steel Products Procurement Act. Reference Article 16.6.1 of the General Conditions.
- 29.2 Trade Practices Act. Reference Article 16.6.2 of the General Conditions.
- 29.3 Public Works Contractor's Bond Law of 1967. Prior to the award of any Contract for any Work on the Project, the contractor to whom the contract is to be awarded must furnish the following bonds which shall become binding upon the award of such Contract:
 - 1. A performance bond at 100 percent of the Contract Sum, conditioned upon the faithful performance of the Contract in accordance with the plans, specifications, and conditions of the Contract. Such bond shall solely for the protection of the Owner which awarded said contract.
 - 2. A payment bond at 100 percent of the Contract Sum. Such bond shall be solely for the protection of claimants supplying labor or materials to the Successful Bidder, its contractor(s) or to any of its Subcontractors, in the prosecution of the work provided for in such Contract and shall be conditioned for the prompt payment of all such material furnished or labor supplied or performed in the prosecution of the Work. "Labor or materials" shall include public utility services and reasonable rentals of equipment, but only for periods when the equipment rented is actually used at the site.
 - 3. Reference Article 11.1.2 of the General Conditions for additional requirements.

30. SEVERABILITY

- 30.1 Should any section or any part of any section of the Contract be rendered void, invalid, or unenforceable by any court of law, for any reason, such a determination shall not render void, invalid, or unenforceable any other section or part of any section of the Contract.

31. AMERICANS WITH DISABILITIES ACT

During the term of this Contract, the Successful Bidder agrees as follows:

- 31.1 Pursuant to federal regulations promulgated under the authority of The Americans with Disabilities Act, 28 C.F.R. § 35.101 et. Seq., the Successful Bidder understands and agrees that no individual with a disability shall, on the basis of the disability, be excluded from participation in this Contract or from activities provided for under this Contract. As a condition of accepting and executing the Contract, the Successful Bidder agrees to comply with the General Prohibitions Against Discrimination, 28 C.F.R. § 35.130, and all other regulations promulgated under Title II of The Americans with Disabilities Act which are applicable to all benefits, services, programs, and activities provided by the Commonwealth of Pennsylvania through contracts.

32. HEALTH AND SAFETY

- 32.1 Reference Article 10 of the General Conditions.

33. BONDS & INSURANCE

- 33.1 The Bidder will be required to furnish a Bid Bond, Performance Bond, and Labor and Material Payment Bonds in the amount of one hundred percent (100%) of the Contract Price in the form provided in the Contract Documents. Said Sureties shall be listed on the current Federal Register and have an AM Best rating of 'A-' or better and a financial rating of Class X or higher.

INSTRUCTIONS TO BIDDERS

- 33.2 Insurance companies must be rated 'A-' or better and have a financial rating of "X" or better in the A.M. Best's Company Key Rating Guide – Latest Edition.
- 33.3 Bidder shall include the cost of the Bonds & Insurance in their Bid.
- 33.4 Bidder shall provide the insurance required in the General Conditions.

34. PRE-BID CONFERENCE

- 34.1 The mandatory Pre-bid Conference will be held on the date and time listed in the Advertisement for Bids. Representatives of Owner, Construction Manager, and Architect will be present to discuss the Project. Architect will transmit to all prospective Bidders of record such Addenda, as Architect considers necessary in response to questions arising at the Conference. Non-attendees will not be permitted to bid.

35. PROJECT FINANCING

The Work to be done under the Contract is public work and may be financed in whole or part by the Owner (a public body) by issuance of bonds, which are subject to various qualifications and restrictions. The Owner, in such case and in good faith, intends to consummate such financing, but its ability to do so is subject to many factors beyond its control. It is therefore expressly understood and agreed to by each Bidder that, notwithstanding any other provision of the Contract Documents, the Owner may at any time cancel any award made by it, or cancel any contract entered into with any Bidder, without liability to the Bidder, at any time before the Bidder has been given written notice to proceed and has actually begun Work under the Contract if financing satisfactory to the Owner cannot reasonably be consummated as contemplated, or if any court of competent jurisdiction shall enjoin or otherwise prohibit the Owner from proceeding with the Work.

36. FAILURE TO EXECUTE CONTRACT

Failure of the Successful Bidder to whom Notice of Intent to Award has been given to deliver appropriate Payment and Performance Bonds, Certificates of Insurance, or execute the Contract within the time specified, shall constitute a default by such Bidder and the Owner may, at its sole discretion, award the contract to the next lowest responsive and responsible Bidder or re-advertise for Bids, and the defaulting Bidder shall pay to the Owner the difference between the amounts of his Bid and any higher amount for which the Owner may contract for the required work, plus any advertising, consulting, legal or other expenses incurred by reason of the default. The Bid Security of such defaulting Bidder shall be applied on account of said damages, and if the amount of said damages exceeds the amount of the Bid Security, the defaulting Bidder shall pay to the Owner the full amount of the excess.

END OF SECTION

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Commonwealth of Pennsylvania

Public Works Employment Verification Form

Complete and return the form to the contracting Public Body prior to the award of the contract.

Company Legal Name: _____

Doing Business As: _____

(if different from Legal Name)

Mailing Address: _____

Street Address 1

Street Address 2

City

State

Zip Code

Check one:

☐

Contractor

☐

Subcontractor

Contracting Public Body: _____

Contract/Project Number: _____

Project Description: _____

Project Location: _____

Date Enrolled in E-Verify (MM/DD/YYYY): _____

As a contractor/subcontractor for the above referenced public works contract, I hereby affirm that as of today's date, _____, our company is in compliance with the Public Works Employment Verification Act ('the Act') through utilization of the federal E-Verify Program (EVP) operated by the United States Department of Homeland Security. To the best of my/our knowledge, all employees hired are authorized to work in the United States.

It is also agreed to that all public works contractors/subcontractors will utilize the federal EVP to verify the employment eligibility of each new hire within five (5) business days of the employee start date throughout the duration of the public works contract. Documentation confirming the use of the federal EVP upon each new hire shall be maintained in the event of an investigation or audit.

I, _____, authorized representative of the company above, attest that the information contained in this verification form is true and correct and understand that the submission of false or misleading information in connection with the above verification shall be subject to sanctions provided by law.

Authorized Representative Signature

Date of Signature

Printed Name: _____

Phone Number: _____ **Email:** _____

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Exhibit ITB-B



PA Department of Education Use Only

Fingerprint Service Code Form

Service Name: School Districts

To Schedule your ten-minute fingerprint appointment, simply visit <https://uenroll.identogo.com> and enter the following Service Code

1KG6XN

Service Code is unique to your hiring/licensing agency. Do not use this code for another purpose.

Please bring one of the identification documents from the list below to your enrollment appointment.

- Driver's License issued by a State or outlying possession of the U.S.
- Driver's License PERMIT issued by a State or outlying possession of the U.S.
- ID card issued by a federal, state, or local government agency or by a Territory of the United States
- State ID Card (or outlying possession of the U.S.) with a seal or logo from State or State Agency
- Commercial Driver's License issued by a State or outlying possession of the U.S.
- Canadian Driver's License
- Department of Defense Common Access Card
- Employment Authorization Card/ Document (I-766) with Photo
- Foreign Driver's License (Mexico and Canada only)
- Foreign passport
- Military Dependent's Identification Card
- Permanent Resident Card or Alien Registration Receipt Card (Form I-551)
- U.S. Coastguard Merchant Mariner Card
- U.S. Military Identification Card
- U.S. Passport
- Enhanced Tribal Identification Card (for federally recognized U.S. tribes)
- U.S. Visa issued by the U.S. Department of Consular Affairs for travel to or within, or residence within, the United States
- Uniformed Services Identification Card (Form DD-1172-2)
- Photo ID Waiver for Minors and U.S. Social Security Card or Birth Certificate



Don't have access to the Internet? You can still schedule an appointment by calling **844-321-2101**

Fingerprint Service Code Form

Service Name: Area Vocations Technical Schools (AVTS)

To Schedule your ten-minute fingerprint appointment, simply visit <https://uenroll.identogo.com> and enter the following Service Code

1KG6NX

Service Code is unique to your hiring/licensing agency. Do not use this code for another purpose.

Please bring one of the identification documents from the list below to your enrollment appointment.

- Driver's License issued by a State or outlying possession of the U.S.
- Driver's License PERMIT issued by a State or outlying possession of the U.S.
- ID card issued by a federal, state, or local government agency or by a Territory of the United States
- State ID Card (or outlying possession of the U.S.) with a seal or logo from State or State Agency
- Commercial Driver's License issued by a State or outlying possession of the U.S.
- Canadian Driver's License
- Department of Defense Common Access Card
- Employment Authorization Card/ Document (I-766) with Photo
- Foreign Driver's License (Mexico and Canada only)
- Foreign passport
- Military Dependent's Identification Card
- Permanent Resident Card or Alien Registration Receipt Card (Form I-551)
- U.S. Coastguard Merchant Mariner Card
- U.S. Military Identification Card
- U.S. Passport
- Enhanced Tribal Identification Card (for federally recognized U.S. tribes)
- U.S. Visa issued by the U.S. Department of Consular Affairs for travel to or within, or residence within, the United States
- Uniformed Services Identification Card (Form DD-1172-2)
- Photo ID Waiver for Minors and U.S. Social Security Card or Birth Certificate



Don't have access to the Internet? You can still schedule an appointment by calling **844-321-2101**

Fingerprint Service Code Form

Service Name: Charter Schools

To Schedule your ten-minute fingerprint appointment, simply visit <https://uenroll.identogo.com> and enter the following Service Code

1KG6Q9

Service Code is unique to your hiring/licensing agency. Do not use this code for another purpose.

Please bring one of the identification documents from the list below to your enrollment appointment.

- Driver's License issued by a State or outlying possession of the U.S.
- Driver's License PERMIT issued by a State or outlying possession of the U.S.
- ID card issued by a federal, state, or local government agency or by a Territory of the United States
- State ID Card (or outlying possession of the U.S.) with a seal or logo from State or State Agency
- Commercial Driver's License issued by a State or outlying possession of the U.S.
- Canadian Driver's License
- Department of Defense Common Access Card
- Employment Authorization Card/ Document (I-766) with Photo
- Foreign Driver's License (Mexico and Canada only)
- Foreign passport
- Military Dependent's Identification Card
- Permanent Resident Card or Alien Registration Receipt Card (Form I-551)
- U.S. Coastguard Merchant Mariner Card
- U.S. Military Identification Card
- U.S. Passport
- Enhanced Tribal Identification Card (for federally recognized U.S. tribes)
- U.S. Visa issued by the U.S. Department of Consular Affairs for travel to or within, or residence within, the United States
- Uniformed Services Identification Card (Form DD-1172-2)
- Photo ID Waiver for Minors and U.S. Social Security Card or Birth Certificate



Don't have access to the Internet? You can still schedule an appointment by calling **844-321-2101**

Fingerprint Service Code Form

Service Name: Intermediate Units (IU)

To Schedule your ten-minute fingerprint appointment, simply visit <https://uenroll.identogo.com> and enter the following Service Code

1KG6S7

Service Code is unique to your hiring/licensing agency. Do not use this code for another purpose.

Please bring one of the identification documents from the list below to your enrollment appointment.

- Driver's License issued by a State or outlying possession of the U.S.
- Driver's License PERMIT issued by a State or outlying possession of the U.S.
- ID card issued by a federal, state, or local government agency or by a Territory of the United States
- State ID Card (or outlying possession of the U.S.) with a seal or logo from State or State Agency
- Commercial Driver's License issued by a State or outlying possession of the U.S.
- Canadian Driver's License
- Department of Defense Common Access Card
- Employment Authorization Card/ Document (I-766) with Photo
- Foreign Driver's License (Mexico and Canada only)
- Foreign passport
- Military Dependent's Identification Card
- Permanent Resident Card or Alien Registration Receipt Card (Form I-551)
- U.S. Coastguard Merchant Mariner Card
- U.S. Military Identification Card
- U.S. Passport
- Enhanced Tribal Identification Card (for federally recognized U.S. tribes)
- U.S. Visa issued by the U.S. Department of Consular Affairs for travel to or within, or residence within, the United States
- Uniformed Services Identification Card (Form DD-1172-2)
- Photo ID Waiver for Minors and U.S. Social Security Card or Birth Certificate



Don't have access to the Internet? You can still schedule an appointment by calling **844-321-2101**

Fingerprint Service Code Form

Service Name: Non-Public Schools

To Schedule your ten-minute fingerprint appointment, simply visit <https://uenroll.identogo.com> and enter the following Service Code

1KG6TR

Service Code is unique to your hiring/licensing agency. Do not use this code for another purpose.

Please bring one of the identification documents from the list below to your enrollment appointment.

- Driver's License issued by a State or outlying possession of the U.S.
- Driver's License PERMIT issued by a State or outlying possession of the U.S.
- ID card issued by a federal, state, or local government agency or by a Territory of the United States
- State ID Card (or outlying possession of the U.S.) with a seal or logo from State or State Agency
- Commercial Driver's License issued by a State or outlying possession of the U.S.
- Canadian Driver's License
- Department of Defense Common Access Card
- Employment Authorization Card/ Document (I-766) with Photo
- Foreign Driver's License (Mexico and Canada only)
- Foreign passport
- Military Dependent's Identification Card
- Permanent Resident Card or Alien Registration Receipt Card (Form I-551)
- U.S. Coastguard Merchant Mariner Card
- U.S. Military Identification Card
- U.S. Passport
- Enhanced Tribal Identification Card (for federally recognized U.S. tribes)
- U.S. Visa issued by the U.S. Department of Consular Affairs for travel to or within, or residence within, the United States
- Uniformed Services Identification Card (Form DD-1172-2)
- Photo ID Waiver for Minors and U.S. Social Security Card or Birth Certificate



Don't have access to the Internet? You can still schedule an appointment by calling **844-321-2101**

Fingerprint Service Code Form

Service Name: Private Schools

To Schedule your ten-minute fingerprint appointment, simply visit <https://uenroll.identogo.com> and enter the following Service Code

1KG6V5

Service Code is unique to your hiring/licensing agency. Do not use this code for another purpose.

Please bring one of the identification documents from the list below to your enrollment appointment.

- Driver's License issued by a State or outlying possession of the U.S.
- Driver's License PERMIT issued by a State or outlying possession of the U.S.
- ID card issued by a federal, state, or local government agency or by a Territory of the United States
- State ID Card (or outlying possession of the U.S.) with a seal or logo from State or State Agency
- Commercial Driver's License issued by a State or outlying possession of the U.S.
- Canadian Driver's License
- Department of Defense Common Access Card
- Employment Authorization Card/ Document (I-766) with Photo
- Foreign Driver's License (Mexico and Canada only)
- Foreign passport
- Military Dependent's Identification Card
- Permanent Resident Card or Alien Registration Receipt Card (Form I-551)
- U.S. Coastguard Merchant Mariner Card
- U.S. Military Identification Card
- U.S. Passport
- Enhanced Tribal Identification Card (for federally recognized U.S. tribes)
- U.S. Visa issued by the U.S. Department of Consular Affairs for travel to or within, or residence within, the United States
- Uniformed Services Identification Card (Form DD-1172-2)
- Photo ID Waiver for Minors and U.S. Social Security Card or Birth Certificate



Don't have access to the Internet? You can still schedule an appointment by calling **844-321-2101**

PENNSYLVANIA STATE POLICE
REQUEST FOR CRIMINAL RECORD CHECK
 1-888-QUERYPA (1-888-783-7972)

This form is to be completed in ink by the requester – (information will be mailed to the requester only). If this form is not legible or not properly completed, it will be returned unprocessed to the requester.

TRY OUR WEBSITE FOR A QUICKER RESPONSE

<https://epatch.state.pa.us>

REQUESTER NAME	
ADDRESS	
CITY/STATE/ZIP CODE	
TELEPHONE NO. (AREA CODE)	

**FOR CENTRAL REPOSITORY USE ONLY
CONTROL NUMBER**

AFTER COMPLETION MAIL TO:

**PENNSYLVANIA STATE POLICE
CENTRAL REPOSITORY – 164
1800 ELMERTON AVENUE
HARRISBURG, PA 17110-9758**

DO NOT SEND CASH OR PERSONAL CHECK

CHECK ONE BLOCK

- ☐ INDIVIDUAL/NONCRIMINAL JUSTICE AGENCY – ENCLOSE A CERTIFIED CHECK/MONEY ORDER IN THE AMOUNT OF \$22.00, PAYABLE TO:
 “COMMONWEALTH OF PENNSYLVANIA”
 THE FEE IS NONREFUNDABLE
- ☐ NOTARIZED INDIVIDUAL/NONCRIMINAL JUSTICE AGENCY – ENCLOSE A CERTIFIED CHECK/MONEY ORDER IN THE AMOUNT OF \$27.00, PAYABLE TO:
 “COMMONWEALTH OF PENNSYLVANIA”
 THE FEE IS NONREFUNDABLE
- ☐ FEE EXEMPT-NONCRIMINAL JUSTICE AGENCY – NO FEE

SUBJECT OF RECORD CHECK				
(FIRST)	(MIDDLE)	(LAST)		
MAIDEN NAME AND/OR ALIASES	SOCIAL SECURITY NUMBER	DATE OF BIRTH (MM/DD/YYYY)	SEX	RACE
<p>The Pennsylvania State Police response will be based on the comparison of the data provided by the requester against the information <u>contained in the files of the Pennsylvania State Police Central Repository only.</u></p>				
<p>FEES FOR REQUESTS - \$22.00. NOTARIZED FEE REQUESTS - \$27.00. ***MAKE ALL MONEY ORDERS PAYABLE TO: <u>COMMONWEALTH OF PENNSYLVANIA</u>***</p>				
<p>REASON FOR REQUEST ◀◀◀◀◀CHECK THE BOX THAT MOST APPLIES TO THE PURPOSE OF THIS REQUEST▶▶▶▶▶</p>				
<input type="checkbox"/> INTERNATIONAL ADOPTION - INTERNATIONAL ADOPTION MUST BE NOTARIZED AND MAILED IN. (\$27.00 FOR REQUEST)				
<input type="checkbox"/> ADOPTION (DOMESTIC) <input type="checkbox"/> EMPLOYMENT <input type="checkbox"/> VISA <input type="checkbox"/> OTHER				

WARNING: 18 Pa.C.S. 4904(b) UNDER PENALTY OF LAW - MISIDENTIFICATION OR FALSE STATEMENTS OF IDENTITY TO OBTAIN CRIMINAL HISTORY INFORMATION OF ANOTHER IS PUNISHABLE AS AUTHORIZED BY LAW.

Homeland Security is Everyone's Responsibility - Pennsylvania Terrorism Tip Line 1-888-292-1919

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Exhibit ITB-D

1 of 3

ARREST/CONVICTION REPORT AND CERTIFICATION FORM (under Act 24 of 2011 and Act 82 of 2012)

Section 1. Personal Information

Full Legal Name: _____

Date of Birth: ____/____/____

Other names by
which you have
been identified: _____

Section 2. Arrest or Conviction

☐

By checking this box, I state that I have NOT been arrested for or convicted of any Reportable Offense.

☐

By checking this box, I report that I have been arrested for or convicted of an offense or offenses enumerated under 24 P.S. §§1-111(e) or (f.1) ("Reportable Offense(s)"). See Page 3 of this Form for a list of Reportable Offenses.

Details of Arrests or Convictions

For each arrest for or conviction of any Reportable Offense, specify in the space below (or on additional attachments if necessary) the offense for which you have been arrested or convicted, the date and location of arrest and/or conviction, docket number, and the applicable court.

Section 3. Child Abuse

☐

By checking this box, I state that I have NOT been named as a perpetrator of a founded report of child abuse within the past five (5) years as defined by the Child Protective Services Law.

☐

By checking this box, I report that I have been named as a perpetrator of a founded report of child abuse within the past five (5) years as defined by the Child Protective Services Law.

Section 4. Certification

By signing this form, I certify under penalty of law that the statements made in this form are true, correct and complete. I understand that false statements herein, including, without limitation, any failure to accurately report any arrest or conviction for a Reportable Offense, shall subject me to criminal prosecution under 18 Pa.C.S. §4904, relating to unsworn falsification to authorities.

Signature

Date

PDE-6004 03/01/2016

INSTRUCTIONS

Pursuant to 24 P.S. §1-111(c.4) and (j), the Pennsylvania Department of Education developed this standardized form (PDE-6004) to be used by current and prospective employees of public and private schools, intermediate units, and area vocational-technical schools.

As required by subsection (c.4) and (j)(2) of 24 P.S. §1-111, this form shall be completed and submitted by all current and prospective employees of said institutions to provide written reporting of any arrest or conviction for an offense enumerated under 24 P.S. §§1-111(e) and (f.1) and to provide notification of having been named as a perpetrator of a founded report of child abuse within the past five (5) years as defined by the Child Protective Services Law.

As required by subsection (j)(4) of 24 P.S. §1-111, this form also shall be utilized by current and prospective employees to provide written notice within seventy-two (72) hours after a subsequent arrest or conviction for an offense enumerated under 24 P.S. §§1-111(e) or (f.1).

In accordance with 24 P.S. §1-111, employees completing this form are required to submit the form to the administrator or other person responsible for employment decisions in a school entity. Please contact a supervisor or the school entity administration office with any questions regarding the PDE 6004, including to whom the form should be sent.

PROVIDE ALL INFORMATION REQUIRED BY THIS FORM LEGIBLY IN INK.

LIST OF REPORTABLE OFFENSES

- **A reportable offense enumerated under 24 P.S. §1-111(e) consists of any of the following:**

- (1) An offense under one or more of the following provisions of Title 18 of the Pennsylvania Consolidated Statutes:

<ul style="list-style-type: none"> ▪ Chapter 25 (relating to criminal homicide) ▪ Section 2702 (relating to aggravated assault) ▪ Section 2709.1 (relating to stalking) ▪ Section 2901 (relating to kidnapping) ▪ Section 2902 (relating to unlawful restraint) ▪ Section 2910 (relating to luring a child into a motor vehicle or structure) ▪ Section 3121 (relating to rape) ▪ Section 3122.1 (relating to statutory sexual assault) ▪ Section 3123 (relating to involuntary deviate sexual intercourse) ▪ Section 3124.1 (relating to sexual assault) ▪ Section 3124.2 (relating to institutional sexual assault) ▪ Section 3125 (relating to aggravated indecent assault) ▪ Section 3126 (relating to indecent assault) ▪ Section 3127 (relating to indecent exposure) ▪ Section 3129 (relating to sexual intercourse with animal) ▪ Section 4302 (relating to incest) ▪ Section 4303 (relating to concealing death of child) 	<ul style="list-style-type: none"> ▪ Section 4304 (relating to endangering welfare of children) ▪ Section 4305 (relating to dealing in infant children) ▪ A felony offense under section 5902(b) (relating to prostitution and related offenses) ▪ Section 5903(c) or (d) (relating to obscene and other sexual materials and performances) ▪ Section 6301(a)(1) (relating to corruption of minors) ▪ Section 6312 (relating to sexual abuse of children) ▪ Section 6318 (relating to unlawful contact with minor) ▪ Section 6319 (relating to solicitation of minors to traffic drugs) ▪ Section 6320 (relating to sexual exploitation of children)
---	---
- (2) An offense designated as a felony under the act of April 14, 1972 (P.L. 233, No. 64), known as “The Controlled Substance, Drug, Device and Cosmetic Act.”
- (3) An offense SIMILAR IN NATURE to those crimes listed above in clauses (1) and (2) under the laws or former laws of:
 - the United States; or
 - one of its territories or possessions; or
 - another state; or
 - the District of Columbia; or
 - the Commonwealth of Puerto Rico; or
 - a foreign nation; or
 - under a former law of this Commonwealth.

- **A reportable offense enumerated under 24 P.S. §1-111(f.1) consists of any of the following:**

- (1) An offense graded as a felony offense of the first, second or third degree, other than one of the offenses enumerated under 24 P.S. §1-111(e), if less than (10) ten years has elapsed from the date of expiration of the sentence for the offense.
- (2) An offense graded as a misdemeanor of the first degree, other than one of the offenses enumerated under 24 P.S. §1-111(e), if less than (5) five years has elapsed from the date of expiration of the sentence for the offense.
- (3) An offense under 75 Pa.C.S. § 3802(a), (b), (c) or (d) (relating to driving under influence of alcohol or controlled substance) graded as a misdemeanor of the first degree under 75 Pa.C.S. § 3803 (relating to grading), if the person has been previously convicted of such an offense and less than (3) three years has elapsed from the date of expiration of the sentence for the most recent offense.

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Exhibit ITB-E

PENNSYLVANIA CHILD ABUSE HISTORY CERTIFICATION

Type or print clearly in ink. If obtaining this certification for non-volunteer purposes or if, as a volunteer having direct volunteer contact with children, you have obtained a certification free of charge within the previous 57 months, enclose an \$13.00 money order or check payable to the PENNSYLVANIA DEPARTMENT OF HUMAN SERVICES or a payment authorization code provided by your organization. **DO NOT send cash.**

Certifications for the purpose of "volunteer having direct volunteer contact with children" may be obtained free of charge once every 57 months.

Send to CHILDLINE AND ABUSE REGISTRY, PA DEPARTMENT OF HUMAN SERVICES, P.O. BOX 8170 HARRISBURG, PA 17105-8170.

APPLICATIONS THAT ARE INCOMPLETE, ILLEGIBLE OR RECEIVED WITHOUT THE CORRECT FEE WILL BE RETURNED UNPROCESSED. IF YOU HAVE QUESTIONS CALL 717-783-6211, OR (TOLL FREE) 1-877-371-5422.

PURPOSE OF CERTIFICATION (Check one box only)

- | | |
|---|---|
| <input type="checkbox"/> Foster parent
<input type="checkbox"/> Prospective adoptive parent
<input type="checkbox"/> Employee of child care services
<input type="checkbox"/> School employee governed by the Public School Code
<input type="checkbox"/> School employee not governed by the Public School Code
<input type="checkbox"/> Self-employed provider of child-care services in a family child-care home
<input type="checkbox"/> An individual 14 years of age or older applying for or holding a paid position as an employee with a program, activity, or service
<input type="checkbox"/> An individual seeking to provide child-care services under contract with a child care facility or program
<input type="checkbox"/> An individual 18 years or older who resides in the home of a foster parent for children for at least 30 days in a calendar year
<input type="checkbox"/> An individual 18 years or older who resides in the home of a certified or licensed child-care provider for at least 30 days in a calendar year
<input type="checkbox"/> An individual 18 years or older, excluding individuals receiving services, who resides in a family living home, community home for individuals with an intellectual disability, or host home for children for at least 30 days in a calendar year
<input type="checkbox"/> An individual 18 years or older who resides in the home of a prospective adoptive parent for at least 30 days in a calendar year | <input type="checkbox"/> Volunteer having direct volunteer contact with children
If purpose is volunteer having direct volunteer contact with children, choose SUB PURPOSE:
<input type="checkbox"/> Big Brother/Big Sister and/or affiliate
<input type="checkbox"/> Domestic violence shelter and/or affiliate
<input type="checkbox"/> Rape crisis center and/or affiliate
<input type="checkbox"/> Other: _____
<input type="checkbox"/> PA Department of Human Services Employment & Training Program participant (signature required below)

SIGNATURE OF OIM/CAO REPRESENTATIVE

OIM/CAO PHONE NUMBER |
|---|---|

AGENCY/ORGANIZATION NAME:

PAYMENT AUTHORIZATION CODE, IF APPLICABLE:

- ☐ Consent/Release of Information Authorization form is attached. Applicant must fill in the "Other Address" sections. By completing the other address sections, you are agreeing that the organization will have access to the status and outcome of your certification application.

APPLICANT DEMOGRAPHIC INFORMATION (DO NOT USE INITIALS)

FIRST NAME	MIDDLE NAME	LAST NAME	SUFFIX
SOCIAL SECURITY NUMBER — — — — —	GENDER <input type="checkbox"/> Male <input type="checkbox"/> Female <input type="checkbox"/> Not reported	DATE OF BIRTH (MM/DD/YYYY)	AGE

Disclosure of your Social Security number is voluntary. It is sought under 23 Pa.C.S. §§ 6336(a)(1) (relating to information in statewide database), 6344 (relating to employees having contact with children; adoptive and foster parents), 6344.1 (relating to information relating to certified or licensed child-care home residents), and 6344.2 (relating to volunteers having contact with children). The department will use your Social Security number to search the statewide database to determine whether you are listed as the perpetrator in an indicated or founded report of child abuse.

HOME ADDRESS	MAILING ADDRESS (if different from home address)	OTHER ADDRESS (if Consent/Release of Information Authorization form is attached)
ADDRESS LINE 1	ADDRESS LINE 1	ADDRESS LINE 1
ADDRESS LINE 2	ADDRESS LINE 2	ADDRESS LINE 2
CITY	CITY	CITY
COUNTY	COUNTY	COUNTY
STATE/REGION/PROVINCE	STATE/REGION/PROVINCE	STATE/REGION/PROVINCE
ZIP/POSTAL CODE	ZIP/POSTAL CODE	ZIP/POSTAL CODE
COUNTRY	COUNTRY	COUNTRY
<input type="checkbox"/> Different mailing address	ATTENTION	ATTENTION

CONTACT INFORMATION

HOME TELEPHONE NUMBER	WORK TELEPHONE NUMBER	MOBILE TELEPHONE NUMBER
EMAIL (By submitting an email contact, you are agreeing to ChildLine contacting you at this address.)		

PENNSYLVANIA CHILD ABUSE HISTORY CERTIFICATION

PREVIOUS NAMES USED SINCE 1975 (Include maiden name, nickname and aliases.)			
First	Middle	Last	Suffix
1.			
2.			
3.			
4.			
5.			

PREVIOUS ADDRESSES SINCE 1975 (Please list all addresses since 1975, partial address acceptable; attach additional pages if necessary.)
1.
2.
3.
4.
5.
6.
7.
8.
9.
10.

HOUSEHOLD MEMBERS (Please list everyone who lived with you at any time since 1975 to present. Please include parent, guardian or the person(s) who raised you; attach additional pages as necessary.)				
Name (First, Middle, Last)	Relationship	Present Age	Gender	
1.	<input type="checkbox"/> Parent <input type="checkbox"/> Guardian <input type="checkbox"/> person(s) who raised you			
2.	<input type="checkbox"/> Parent <input type="checkbox"/> Guardian <input type="checkbox"/> person(s) who raised you			
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				

I affirm that the above information is accurate and complete to the best of my knowledge and belief and submitted as true and correct under penalty of law (Section 4904 of the Pennsylvania Crimes Code). If I selected volunteer, I understand that I can only use the certificate for volunteer purposes.

APPLICANT'S SIGNATURE

DATE

CHILDLINE USE ONLY		
DATE RECEIVED BY CHILDLINE	SUFFICIENT PAYMENT INFORMATION RECEIVED <input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> VALID PAYMENT AUTHORIZATION CODE <input type="checkbox"/> WAIVED (supervisor initials) _____	CERTIFICATION ID #

INSTRUCTIONS TO COMPLETE THE PENNSYLVANIA CHILD ABUSE HISTORY CERTIFICATION APPLICATION:

General:

- Type or print clearly and neatly in ink only.
- If obtaining this certification for non-volunteer purposes or if, as a volunteer having direct volunteer contact with children, you have obtained a certification free of charge within the previous 57 months, enclose an \$13.00 money order or check for each application. No cash will be accepted. Personal, agency, or business checks are acceptable. Certifications for the purpose of "volunteer having direct volunteer contact with children" may be obtained free of charge once every 57 months. If no payment is enclosed for a non-volunteer purpose, you must provide a payment authorization code, otherwise your application will be rejected and returned to you.
- **DO NOT SEND POSTAGE PAID RETURN ENVELOPES** for us to return your results. Results are issued through an automated system generated mailing process.
- Certification results will be mailed to you within 14 days from the date the certification application is received at the ChildLine and Abuse Registry.
- Failure to comply with the instructions will cause considerable delay in processing the results of an applicant's child abuse history certification application.

Purpose of Certification - Do not check more than one box:

- Check the **foster parent** box if applying for purposes of providing foster care.
- Check the **prospective adoptive parent** box if applying for the purpose of adoption.
- Check the **employee of child care services** box if applying for the purpose of child care services in the following:
 - Child day care centers; group day care homes; family day care homes; boarding homes for children; juvenile detention center services or programs for delinquent or dependent children; mental health services for children; services for children with intellectual disabilities; early intervention services for children; drug and alcohol services for children; and day care services or other programs that are offered by a school.
- Check the **school employee governed by the Public School Code** box if you are a school employee who is required to obtain background checks pursuant to Section 111 of the Public School Code and will continue to be required to obtain background checks prior to employment in accordance with that section and on the periodic basis required by Act 153.
- Check the **school employee not governed by the Public School Code** box if you are a school employee not governed by Section 111 of the Public School Code, but covered by Act 153 (pertaining to school employees in institutions of higher education).

Definition of school employee: A school employee is defined as an individual who is employed by a school or who provides a program, activity or service sponsored by a school. The term does not apply to administrative or other support personnel unless they have direct contact with children.

Definition of school: A facility providing elementary, secondary or postsecondary educational services. The term includes the following:

- (1) Any school of a school district.
 - (2) An area vocational-technical school.
 - (3) A joint school.
 - (4) An intermediate unit.
 - (5) A charter school or regional charter school.
 - (6) A cyber charter school.
 - (7) A private school licensed under the act of January 28, 1988 (P.L.24, No. 11), known as the Private Academic Schools Act.
 - (8) A private school accredited by an accrediting association approved by the state Board of Education.
 - (9) A non-public school.
 - (10) An institution of higher education.
 - (11) A private school licensed under the act of December 15, 1986 (P.L. 1585, No. 174), known as the Private Licensed Schools Act.
 - (12) The Hiram G. Andrews Center.
 - (13) A private residential rehabilitative institution as defined in section 914.1-A(c) of the Public School Code of 1949.
- Check the **self-employed provider of child-care services in a family child-care home** if providing child care services in one's home (other than the child's own home) at any one time to four, five, or six children who are not relatives of the caregiver.
 - Check the **individual 14 years of age or older who is applying for or holding a paid position as an employee** box if the employment is with a **program, activity, or service, as a person responsible for the child's welfare or having direct contact with children:** Applying as an employee who is responsible for the child's welfare or having direct contact (providing care, supervision, guidance, or control to children or having routine interaction with children) in any of the following in which children participate and which is sponsored by a school or public or private organization:
 - A youth camp or program;
 - A recreational camp or program;
 - A sports or athletic program;
 - A community or social outreach program;
 - An enrichment or educational program; and
 - A troop, club, or similar organization
 - Check the **individual seeking to provide child care services under contract with a child care facility or program** box if you are providing child care services as part of a contract or grant funded program.
 - Check the box for **individual 18 years or older who resides in the home of a foster parent for at least 30 days in a calendar year** if you are an adult household member in this setting and require certification.
 - Check the box for **individual 18 years or older who resides in the home of a certified or licensed child-care provider for at least 30 days in a calendar year** if you are an adult household member in this setting and require certification.

- Check the box for **individual 18 years or older, excluding individuals receiving services, who resides in a family living home, community home for individuals with an intellectual disability, or host home for children for at least 30 days in a calendar year** if you are an adult household member in this setting and require certification.
- Check the box for **individual 18 years or older who resides in the home of a prospective adoptive parent for at least 30 days in a calendar year** if you are an adult household member in this setting and require certification.
- Check the **volunteer having direct volunteer contact with children** box if applying for the purpose of volunteering as an adult for an unpaid position as a volunteer with a child-care service, a school, or a program, activity or service as a person responsible for the child's welfare or having direct volunteer contact with children. In addition, check the box of one of the organizations listed, i.e. Big Brother/Big Sister, domestic violence shelter, rape crisis center. If you are **NOT** applying for a volunteer in one of the organizations listed, please check the **other** box and write the name of the organization in the space provided.
- Check the **PA Department of Human Services employment & training program participant** box if you are applying for the purpose of participating in a PA Department of Human Services employment and training program through a county assistance office (CAO) or the Office of Income Maintenance (OIM). The signature **AND** phone number of the CAO or OIM representative is required. If there is no signature and no phone number, your application will be rejected and returned to you.
- If you were provided a **"PAYMENT AUTHORIZATION CODE"** by an organization, please provide the **agency/organization name** in the space provided and the **payment authorization code** in the space provided.
- Please check the **CONSENT/RELEASE OF INFORMATION** box if you included a payment code in the space above and attached the completed Consent/Release of Information Authorization form to your Pennsylvania Child Abuse History Certification application when you mail it to our office. The Consent/Release of Information Authorization form allows the department to send your results to a third party. If the Consent/Release of Information Authorization form is **NOT** attached to the certification application, the results **WILL** be mailed to the applicant's home address and not to the third party.

Applicant Demographic Information:

- Name - Include the applicant's full legal name. Initials are not acceptable for a first name. If your full legal name is an initial, please provide supporting documentation along with your certification application.
- Social Security number - Include the applicant's social security number. A social security number is voluntary; **HOWEVER, PLEASE NOTE THAT APPLICATIONS THAT DO NOT INCLUDE SOCIAL SECURITY NUMBERS MAY TAKE LONGER TO BE PROCESSED.**
- Gender - Please check one box.
- Date of birth - Fill in the applicant's date of birth (Example: 01/22/1990).
- Age - Fill in the applicant's current age.

Address:

- The address listed must be the applicant's current home address. This is also where the results of the certification will be mailed, unless otherwise noted. If the **different mailing address** box is checked and a mailing address is provided in the "different" mailing address column, the results will be mailed to the "mailing" address and not the "home" address. **Note:** If the consent/release of information box is checked and an "other" address is provided, the results will be mailed to the "other" address.

Contact Information:

- Please provide your home, work or mobile telephone number. Fill in the number where the applicant can be reached in the event that there are questions about the information on the application.
- Please provide an email address. By providing an email address, you are consenting to ChildLine contacting you by email in the event that you cannot be reached by phone. **NO CONFIDENTIAL INFORMATION WILL EVER BE SHARED OR PROVIDED IN AN EMAIL FROM OUR OFFICE.**

Previous Names Used Since 1975:

- The applicant must list any and all full legal names that they have ever had since 1975. This includes maiden names, nicknames, aliases and also known as (aka) names.

Previous Addresses Since 1975:

- List all addresses where the applicant has resided since 1975. The applicant can attach an additional sheet of paper with all of the addresses listed if necessary. If the applicant cannot remember the exact mailing addresses since 1975, filling in as much information as possible about the location is acceptable.

Household Members:

- Include anyone that the applicant lived with since 1975 (parents, guardians, siblings, children, spouse (ex), paramour, friends, etc.). In addition, include the household member's relationship to the applicant, their age (to the best of your knowledge) and their gender. If the applicant was under the age of 18 in 1975, this section **MUST** include the applicant's PARENT(S) or GUARDIAN(S). If this section is left blank, the application will be rejected and returned to the applicant.

Signature:

- Applications **MUST** be signed and dated. Applications that are not signed and dated will be rejected and returned to the applicant.

CHILDLINE USE ONLY:

- Please **DO NOT WRITE** in this section. This is for CHILDLINE staff only.

Additional Information:

Applicants can visit <https://www.compass.state.pa.us/CWIS> for more information about submitting the child abuse certification online or to register for a business/organization account.

Exhibit ITB-F

COMMONWEALTH OF PENNSYLVANIA
SEXUAL MISCONDUCT/ABUSE DISCLOSURE RELEASE
(Pursuant to Act 168 of 2014)

Instructions

This standardized form has been developed by the Pennsylvania Department of Education, pursuant to Act 168 of 2014, to be used by school entities and independent contractors of school entities and by applicants who would be employed by or in a school entity in a position involving direct contact with children to satisfy the Act's requirement of providing information related to abuse or sexual misconduct. As required by Act 168, in addition to fulfilling the requirements under section 111 of the School Code and the Child Protective Services Law ("CPSL"), an applicant who would be employed by or in a school entity in a position having direct contact with children, must provide the information requested in SECTION 1 of this form and complete a written authorization that consents to and authorizes the disclosure by the applicant's current and former employers of the information requested in SECTION 2 of this form. The applicant shall complete one form for the applicant's current employer(s) and one for each of the applicant's former employers that were school entities or where the applicant was employed in a position having direct contact with children (therefore, the applicant may have to complete more than one form). Upon completion by the applicant, the hiring school entity or independent contractor shall submit the form to the applicant's current and former employers to complete SECTION 2. **A school entity or independent contractor may not hire an applicant who does not provide the required information for a position involving direct contact with children.**

Relevant Definitions:

Direct Contact with Children is defined as: "the possibility of care, supervision, guidance or control of children or routine interaction with children."

Sexual Misconduct is defined as: "any act, including, but not limited to, any verbal, nonverbal, written or electronic communication or physical activity, directed toward or with a child or a student regardless of the age of the child or student that is designated to establish a romantic or sexual relationship with the child or student. Such acts include, but are not limited to: (1) sexual or romantic invitation; (2) dating or soliciting dates; (3) engaging in sexualized or romantic dialogue; (4) making sexually suggestive comments; (5) self-disclosure or physical exposure of a sexual, romantic or erotic nature; or (6) any sexual, indecent, romantic or erotic contact with the child or student."

Abuse is defined as "conduct that falls under the purview and reporting requirements of the CPSL, 23 Pa.C.S. Ch. 63, is directed toward or against a child or a student, regardless of the age of the child or student."

Please Note

A prospective employer that receives any requested information regarding an applicant may use the information for the purpose of evaluating the applicant's fitness to be hired or for continued employment and shall report the information as appropriate to the Department of Education, a state licensing agency, law enforcement agency, child protective services agency, another school entity or to a prospective employer.

If the prospective employer decides to further consider an applicant after receiving an affirmative response to any of the questions listed in SECTIONS 1 and 2 of this form, the prospective employer shall request that former employers responding affirmatively to the questions provide additional information about the matters disclosed and include any related records. The **Commonwealth of Pennsylvania Sexual Misconduct/Abuse Disclosure Information Request** can be used to request this follow-up information. Former employers shall provide the additional information and records within 60 calendar days of the prospective employer's request.

The completed form and any information or records received shall not be considered public records for the purposes of the Act of February 14, 2008 (P.L. 6, No. 3) known as the "Right to Know Law."

The Department of Education shall have jurisdiction to determine willful violations of Act 168 and may, following a hearing, assess a civil penalty not to exceed \$10,000. School entities shall be barred from entering into a contract with an independent contractor who is found to have willfully violated the provisions of Act 168.

**COMMONWEALTH OF PENNSYLVANIA
SEXUAL MISCONDUCT/ABUSE DISCLOSURE RELEASE
(under Act 168 of 2014)**

(Hiring school entity or independent contractor submits this form to ALL current employer(s) and to former employer(s) that were school entities and/or where the applicant had direct contact with children)

To:	Name of Current or Former Employer:	<input type="checkbox"/> No applicable employment
	Street Address:	
	City, State, Zip:	
	Telephone Number:	Fax Number: Email:
	Contact Person:	Title:

The named applicant is under consideration for a position with our entity. The Pennsylvania General Assembly has determined that additional safeguards are necessary in the hiring of school employees to ensure the safety of the Commonwealth's students. The individual whose name appears below has reported previous employment with your entity. We request you provide the information requested in SECTION 2 of this form within **20 calendar days** as required by Act 168 of 2014.

SECTION 1: APPLICANT CERTIFICATION AND RELEASE (TO BE COMPLETED BY THE APPLICANT EVEN IF THE APPLICANT HAS NO CURRENT OR PRIOR EMPLOYMENT TO DISCLOSE)

Applicant's Name (First, Middle, Last):	
Any former names by which the Applicant has been identified:	
DOB:	
Last 4 digits of Applicant's Social Security Number:	PPID (if applicable):
Approximate dates of employment with the entity listed above:	
Position(s) held with the entity:	

Pursuant to Act 168, an employer, school entity, administrator, and/or independent contractor that provides information or records about a current or former employee or applicant shall be immune from criminal liability under the CPSL, the Educator Discipline Act, and from civil liability for the disclosure of the information, unless the information or records provided were knowingly false. Such immunity shall be in addition to and not in limitation of any other immunity provided by law or any absolute or conditional privileges applicable to such disclosure by the virtue of the circumstances of the applicant's consent thereto. Under Act 168, the willful failure to respond to or provide the information and records as requested may result in civil penalties and/or professional discipline, where applicable.

Have you (Applicant) ever:

Yes	No	Been the subject of an abuse or sexual misconduct investigation by any employer, state licensing agency, law enforcement agency or child protective services agency (unless the investigation resulted in a finding that the allegations were false)?
Yes	No	Been disciplined, discharged, non-renewed, asked to resign from employment, resigned from or otherwise separated from employment while allegations of abuse or sexual misconduct were pending or under investigation or due to adjudication or findings of abuse or sexual misconduct?
Yes	No	Had a license, professional license or certificate suspended, surrendered or revoked while allegations of abuse or sexual misconduct were pending or under investigation or due to an adjudication or findings of abuse or sexual misconduct?

By signing this form, I certify under penalty of law that the statements made in this form are correct, complete, and true to the best of my knowledge. I understand that false statements herein, including, without limitation, any willful failure to disclose the information required, shall subject me to criminal prosecution under 18 Pa.C.S. § 4904 (relating to unsworn falsification to authorities) and to discipline up to, and including, termination or denial of employment, and may subject me to civil penalties and disciplinary action under the Educator Discipline Act. I also hereby authorize the above-named employer to release to the entity listed on page 3, the information requested in SECTION 2 of this form and any related records. I hereby release, waive, and discharge the above-named employer from any and all liability of any kind that may arise from such disclosure or release of records. I understand that third party vendors may be used to process this Act 168 pre-employment history review.

Signature of Applicant

Date

SECTION 2: CURRENT/FORMER EMPLOYER VERIFICATION (TO BE COMPLETED BY THE APPLICANT'S CURRENT EMPLOYER(S) AND ALL FORMER EMPLOYERS THAT WERE SCHOOL ENTITIES AND/OR WHERE THE APPLICANT HAD DIRECT CONTACT WITH CHILDREN)

Dates of employment of Applicant: _____ Contact telephone #: _____

To the best of your knowledge, has Applicant ever:

Yes	No	Been the subject of an abuse or sexual misconduct investigation by any employer, state licensing agency, law enforcement agency or child protective services agency (unless the investigation resulted in a finding that the allegations were false)?
Yes	No	Been disciplined, discharged, non-renewed, asked to resign from employment, resigned from or otherwise separated from employment while allegations of abuse or sexual misconduct were pending or under investigation or due to adjudication or findings of abuse or sexual misconduct?
Yes	No	Had a license, professional license or certificate suspended, surrendered or revoked while allegations of abuse or sexual misconduct were pending or under investigation or due to an adjudication or findings of abuse or sexual misconduct?

No records or other evidence currently exists regarding the above questions. I have no knowledge of information pertaining to the applicant that would disqualify the applicant from employment.

Former Employer Representative Signature and Title

Date

Return all completed information to:

School Entity/Independent Contractor:			
Address:		Phone:	
City:	State:	Zip:	Fax: Email:
Contact Person:			Title:

Date Form Received: _____

Received by: _____

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Electronic Media User Agreement & Release

User Name:			
Project Name:	Reading School District 13 th & Union Elementary Renovations	Project No.:	093251
PM Name:	Elisabeth Hamscher		
CHA Office:	One East Broad Street, Suite 310 Bethlehem, PA 18018	Date:	March 2025

Reading School District (OWNER), CHA Consulting (CHA), AEM Architects (ARCHITECT) and Consultants are transmitting the following materials to you, as part of the bid documents for the above project.

Reading School District 13th & Union Elementary: AutoCAD Drawings

The transmission of these materials is specifically conditioned upon your agreement as USER of the materials to the following terms and conditions. Acceptance and use of these materials will indicate your agreement:

- No warranties express or implied are made to the USER with respect to the hard copies or electronic form of the document(s) listed above, including any implied warranties of merchantability or fitness for a particular purpose. OWNER, CHA, and ARCHITECT do not warrant the accuracy or completeness of the information contained in these materials.
- It is understood that the USER makes use of any electronic form of the above noted documents and drawings at USER'S sole risk and that the drawings and documents in electronic form are provided "as is." No license, express or implied, by estoppel or otherwise, to any intellectual property right is granted by or under this agreement. The electronic documents are provided for the sole and exclusive purpose of preparing estimates and submitting bids for the above referenced Project.
- In no event shall OWNER, CHA, and ARCHITECT be liable for any consequential or special damages or for any loss of profits sustained by USER in connection with or arising out of use of the electronic form of the above noted drawings and documents. They are furnished without guarantee of compatibility with the USER'S software or hardware. The USER is responsible for informing OWNER, CHA, and ARCHITECT of any perceived errors in the information contained in the electronic media being transferred.
- OWNER, CHA, and ARCHITECT may make changes or improvements to these materials, but OWNER, CHA, and ARCHITECT make no commitment to USER to update any information contained in these materials.
- OWNER, CHA, and ARCHITECT assume no liability or responsibility for the use of these materials by USER. USER agrees that in exchange and in consideration for the limited use license being granted to USER for the Electronic Drawing Files in this Agreement and Release, to the fullest extent permitted by law, USER releases and agrees to defend, indemnify and hold OWNER, CHA, and ARCHITECT, their consultants, officers, directors, employees and insurers harmless from all claims, damages, losses and causes of actions that relate to or arise in connection with the USER's use of the Electronic Drawing Files.
- The documents may only be used for bidding purposes. The USER shall be prohibited from redistributing or reusing the documents for any other purpose.
- OWNER, CHA, and ARCHITECT make no warranties or representations as to the accuracy or completeness of the information reflected and contained in the Electronic Drawing Files, and USER remains responsible for the bid submitted and must perform independent verification including verifying field dimensions and conditions for the accuracy and completeness of all existing conditions and information provided in the Electronic Drawing Files or other bidding materials provided to the USER by OWNER, CHA, ARCHITECT and/or others in connection with the Project, in accordance with the Instructions to Bidders.
- Upon opening of the sealed bids for the Project, USER agrees within seven (7) days of the bid opening to destroy any and all copies of the Electronic Drawing Files.
- Please contact CHA at 610-865-3000 if you have questions regarding this agreement and release.



Electronic Media User Agreement & Release

AGREEMENT APPROVAL and DISTRIBUTION

USER Project Manager or Principal-in-Charge Signature

Date

Printed Name and Title

Company Name

Address

Email Address

Phone Number

SUBSTITUTION REQUEST FORM

SECTION 00 26 25 - SUBSTITUTION REQUEST FORM

- A. Submissions for approved substitutions will be permitted and processed in accord with Article 10 of Specification Section 002113 "Instructions to Bidders".
- B. Submissions will be "received dated" immediately upon arrival at the office of the Architect.
- C. All Submissions must be received ten (10) days prior to bid or they may not be reviewed.
- D. Reviewer's General Criteria for review will be:
 - 1. Burden of proof of performance equality and completeness of this submittal is the responsibility of the submitter.
 - 2. Reviewers will not be required to complete the submittal, that is, select from options or between models and lines of products.
 - 3. Reviewer will not be required to seek information from the manufacturer's literature on file in the office, or information from other locations.
 - 4. Product must be equal, or better, in those features and performance which specified product provides.
 - 5. When in the reviewer's opinion, significant deficiencies are established, further review of submitted data is not required.
- E. Reviewer will note action (approval or disapproval), the date, and their initials.
- F. If a submittal is disapproved, reviewer will make notations that will be adequate to guide a later reviewer to the same conclusion. Sample notations may be: "Submittal vague", "incomplete", or "product equality not substantiated".
- G. Submittals received after closing time will be "received dated," marked "late", initialed, and filed without review.
- H. Submittals will be filed in the project file until completion of the project, then destroyed.
- I. Approval of a substitute item will be communicated to bidders in the form of an Addendum.

SUBSTITUTION REQUEST FORM

TO:

AEM Architects, Inc.
3700 Perkiomen Ave.
Reading, PA 19606

CHA
1 E. Broad St., Suite 310
Bethlehem, PA 18018

PROJECT _____

PRIME BIDDER _____

CONTRACTOR/SUPPLIER _____

We hereby submit for consideration, the following product instead of specified item for above project:

SECTION/DRAWING	PARAGRAPH/DETAIL	SPECIFIED ITEM
_____	_____	_____

Proposed Substitution: _____

MANUFACTURER'S HOME OFFICE:

LOCAL REPRESENTATIVE:

Address: _____

Address: _____

Telephone: _____

Telephone: _____

Contact: _____

Contact: _____

Attached to this request is product data, specifications, performance tests and data, and color samples. The attached information also includes any modifications of the Contract Documents which would be required if this substitution is utilized for this Project.

The undersigned states that as a Prime Bidder on the above referenced Project the following statements are true.

1. The Prime Bidder has investigated proposed Product and determined that it meets or exceeds the quality level of the specified Product.
2. That the product manufacturer will provide the same warranty for the Substitution as for the specified Product.
3. That the use of this product will not have an adverse effect on any other trade or Prime Contractor or the Construction Schedule.
4. That the use of this product does not affect the dimensions shown on the Drawings unless specifically stated in the attached information.

Reason for Substitution:

SUBSTITUTION REQUEST FORM

ATTACHMENTS *(If not applicable, write N/A in space provided)*

- No. 1 Complete product data, including technical data and laboratory tests, if applicable.

- No. 2 Drawings indicating dimensional changes. _____
- No. 3 Complete description of changes to drawings and specifications which proposed substitution will require for its proper installation.

- No. 4 Necessary samples and substantiating data to prove equal quality, performance, and appearance to that which is specified. Clearly mark manufacturer's literature to indicate equality in performance. Differences in quality of materials and construction shall be indicated.
- No. 5 List of names and addresses of three similar projects on which product was used, date of installation, and Architect/Engineer's name, address, and telephone numbers.

Fill in blanks below *(Provide attachments if more space is necessary)*

- A. Does the substitution affect dimensions indicated on the Contract Drawings?
Yes _____ No _____ If yes, clearly indicate changes:

- B. Will the undersigned pay for changes to the building design, including engineering and detailing costs caused by the requested substitution?

- C. What effect does substitution have on other trades, other contracts, and Contract Completion Date?

- D. What effect does substitution have on applicable code requirements?

- E. List differences between proposed substitution and specified item:

- F. Identify manufacturer's guarantees: _____

- G. Identify cost impact; Provide attachments showing proposed credit:

SUBSTITUTION REQUEST FORM

Undersigned attests function and quality equivalent or superior to specified item.

CERTIFICATION OF EQUAL PERFORMANCE:

Submitted by: _____ Title: _____

Company: _____

Address: _____

Date: _____

Telephone: _____ E-mail: _____

Signature: _____

.....

For Use by the Architect/Engineer:

Accepted: _____ Accepted as Noted: _____

Not Accepted: _____ Received Too Late: _____

Reviewer: _____ Date: _____

REMARKS: _____

END OF SECTION

SECTION 00 43 13.00 - BID SECURITY FORM

The Bid Security Form utilized for this project shall be a "Bid Bond", AIA Document A310-2010, included herein, or an approved equal. Reference Section 002113, "Instructions to Bidders" for the execution of the Bid Bond.

END OF SECTION

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AIA[®] Document A310[™] – 2010

Bid Bond

CONTRACTOR:

(Name, legal status and address)

SURETY:

(Name, legal status and principal place of business)

OWNER:

(Name, legal status and address)

Reading School District
800 Washington Street
Reading, PA 19601

BOND AMOUNT: \$**PROJECT:**

(Name, location or address, and Project number, if any)

Reading School District 13th & Union Elementary Renovations
600 N. 13th Street
Reading, PA 19604

The Contractor and Surety are bound to the Owner in the amount set forth above, for the payment of which the Contractor and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, as provided herein. The conditions of this Bond are such that if the Owner accepts the bid of the Contractor within the time specified in the bid documents, or within such time period as may be agreed to by the Owner and Contractor, and the Contractor either (1) enters into a contract with the Owner in accordance with the terms of such bid, and gives such bond or bonds as may be specified in the bidding or Contract Documents, with a surety admitted in the jurisdiction of the Project and otherwise acceptable to the Owner, for the faithful performance of such Contract and for the prompt payment of labor and material furnished in the prosecution thereof; or (2) pays to the Owner the difference, not to exceed the amount of this Bond, between the amount specified in said bid and such larger amount for which the Owner may in good faith contract with another party to perform the work covered by said bid, then this obligation shall be null and void, otherwise to remain in full force and effect. The Surety hereby waives any notice of an agreement between the Owner and Contractor to extend the time in which the Owner may accept the bid. Waiver of notice by the Surety shall not apply to any extension exceeding sixty (60) days in the aggregate beyond the time for acceptance of bids specified in the bid documents, and the Owner and Contractor shall obtain the Surety's consent for an extension beyond sixty (60) days.

If this Bond is issued in connection with a subcontractor's bid to a Contractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

When this Bond has been furnished to comply with a statutory or other legal requirement in the location of the Project, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so

ADDITIONS AND DELETIONS:

The author of this document has added information needed for its completion. The author may also have revised the text of the original AIA standard form. An *Additions and Deletions Report* that notes added information as well as revisions to the standard form text is available from the author and should be reviewed. A vertical line in the left margin of this document indicates where the author has added necessary information and where the author has added to or deleted from the original AIA text.

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

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

furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

This Bond shall be governed by the laws of the Commonwealth of Pennsylvania. The Principal and Surety hereby consent to the personal jurisdiction and venue of the Court of Common Pleas of Berks County, Pennsylvania, and each of them agree that all litigation, claims and disputes arising under or pertaining to this bond shall be decided by the Court of Common Pleas of Berks County, Pennsylvania. The Principal and the Surety further agree that such court shall have exclusive venue and jurisdiction over the parties to this Agreement, and also the Principal and Surety agree to consent to service of process by any means authorized by Pennsylvania law.

Signed and sealed this day of ,

(Contractor as Principal) (Seal)

(Witness)

(Title)

(Surety) (Seal)

(Witness)

(Title)

SECTION 00 45 19 – NON-COLLUSION AFFIDAVIT

State of _____:
County of _____: SS

I state that I am _____ of _____
(Title) (Name of Firm)

And that I am authorized to make this Affidavit on behalf of my firm, and its Owners, Directors, and Officers. I am the person responsible in my firm for the price(s) and the amount of this Bid.

I state that:

1. The price(s) and amount of this Bid have been arrived at independently and without consultation, communication, or agreement with any other contractor, bidder, or potential bidder.
2. Neither the price(s) nor the amount of this Bid, and neither the approximate price(s) nor approximate amount of this Bid, have been disclosed to any other firm or person who is a bidder or potential bidder, and they will not be disclosed before Bid opening.
3. No attempt has been made or will be made to induce any firm or person to refrain from bidding on this contract, or to submit a bid higher than this Bid, or to submit any intentionally high or noncompetitive bid or other form of complementary bid.
4. The Bid of my firm is made in good faith and not pursuant to any agreement or discussion with, or inducement from, any firm or person to submit a complementary or other noncompetitive bid.
5. _____, its affiliates,
(Name of My Firm)
subsidiaries, officers, directors, and employees are not currently under investigation by any governmental agency and have not in the last three years been convicted or found liable for any act prohibited by State or Federal Law in any jurisdiction, involving conspiracy or collusion with respect to bidding on any public contract except as follows:

NON-COLLUSION AFFIDAVIT

I state that, _____,
(Name of My Firm)

understands and acknowledges that the above representations are material and important and will be relied on by the Reading School District in awarding the contract(s) for which this Bid is submitted. I understand, and my firm understands, that any misstatement in this Affidavit is and shall be treated as fraudulent concealment from the Reading School District of the true facts relating to the submission of bids for this contract.

(Name)

(Company, Position)

SWORN TO AND SUBSCRIBED

BEFORE ME THIS _____ DAY

of _____, 20 ____.

Notary Public

My Commission Expires

INSTRUCTIONS FOR NON-COLLUSION AFFIDAVIT

1. This Non-Collusion Affidavit is material to any contract awarded pursuant to this Bid. According to Section 4507 of the Pennsylvania Commonwealth Procurement Code, 62 Pa.C.S. § 4507, governmental agencies may require Non-Collusion Affidavits to be submitted together with bids.
2. This Non-Collusion Affidavit must be executed by the member, officer, or employee of the bidder who makes the final decision on prices and the amount quoted in the bid.
3. Bid rigging and other efforts to restrain competition, and the making of false SWORN statements in connection with the submission of bids are unlawful and may be subject to criminal prosecution. The person who signs the Affidavit should examine it carefully before signing and assure himself or herself that each statement is true and accurate, making diligent inquiry, as necessary, of all of persons employed by or associated with the bidder with responsibilities for the preparation, approval or submission of the bid.
4. In case of a bid submitted by a joint venture, each party to the venture must be identified in the Bid Documents, and an Affidavit must be submitted separately on behalf of each party.
5. The term "Complementary Bid" as used in the Affidavit has the meaning commonly associated with that term in the bidding process and includes the knowing submission of bids higher than the bid of another firm, any intentionally high or noncompetitive bid, and any other form of bid submitted for the purpose of giving a false appearance of competition.
6. Failure to file an Affidavit in compliance with these instructions may result in disqualification of the bid.
7. A bidder's statement that it has been convicted or found liable for any act prohibited by Federal or State Law in any jurisdiction involving conspiracy or collusion with respect to bidding on any public contract within the last three (3) years does not prohibit a government agency from accepting a bid from or awarding a contract to that bidder, but it may be grounds for administrative suspension or debarment in the discretion of the government agency under the rules and regulations of that agency or, in the case of a government agency with no administrative suspension or debarment regulations or procedures, may be grounds for consideration on the question of whether the agency should decline to award a contract to that person on the basis of lack of responsibility.

END OF SECTION

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SECTION 00 52 16.00 - AGREEMENT FORM

The "Standard Form of Agreement between Owner and Contractor, Construction Manager as Adviser Edition", AIA Document A132 - 2019 Edition, modified by the Owner for this Project, shall be in effect for the duration of this Project. A draft form of the modified Agreement Form is bound herein.

END OF SECTION

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DRAFT AIA® Document A132™ – 2019

Standard Form of Agreement Between Owner and Contractor, Construction Manager as Adviser Edition

AGREEMENT made as of the « » day of « » in the year «2025»
(In words, indicate day, month, and year.)

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

«Reading School District »« »
«800 Washington Street»
«Reading, PA 19601»
«Phone: 484-258-7000»

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

«»« »
« »
« »
« »

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

«13th & Union Elementary Renovations»
«1600 North 13th Street»
«Reading, PA 19604»

The Construction Manager:
(Name, legal status, address, and other information)

«CHA»
«1 East Broad Street»
«Suite 310»
«Bethlehem, PA 18018»
«Phone: 610-865-3000»

The Architect:
(Name, legal status, address, and other information)

«AEM Architects, Inc.»« »
«3700 Perkiomen Avenue»
«Reading, PA 19606»
«Phone: 610-779-3220»

The Owner and Contractor agree as follows.

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

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

This document is intended to be used in conjunction with AIA Documents A232™-2019, General Conditions of the Contract for Construction, Construction Manager as Adviser Edition; B132™-2019, Standard Form of Agreement Between Owner and Architect, Construction Manager as Adviser Edition; and C132™-2019, Standard Form of Agreement Between Owner and Construction Manager as Adviser. AIA Document A232™-2019 is adopted in this document by reference. Do not use with other general conditions unless this document is modified.

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ARTICLE 1 THE CONTRACT DOCUMENTS

The Contract Documents consist of this Agreement, Conditions of the Contract (General, Supplementary, and other Conditions), Drawings, Specifications, Addenda issued prior to execution of this Agreement, other documents listed in this Agreement, and Modifications issued after execution of this Agreement, all of which form the Contract, and are as fully a part of the Contract as if attached to this Agreement or repeated herein. The Contract represents the entire and integrated agreement between the parties hereto and supersedes prior negotiations, representations, or agreements, either written or oral. An enumeration of the Contract Documents, other than Modifications, appears in Article 9. For purposes of this Agreement, the term "General Conditions" as used herein shall mean the AIA A232 – 2019, General Conditions of the Contract for Construction, as modified.

ARTICLE 2 THE WORK OF THIS CONTRACT

The Contractor shall fully execute the Work described in the Contract Documents, except as specifically indicated in the Contract Documents to be the responsibility of others.

ARTICLE 3 DATE OF COMMENCEMENT AND DATES OF SUBSTANTIAL COMPLETION

§ 3.1 The date of commencement of the Work shall be:

(Check one of the following boxes.)

☐ [« »] The date of this Agreement.

☒ [«X»] A fixed date set forth in a notice to proceed issued by the Owner or Construction Manager.

☐ [« »] Established as follows:
(Insert a date or a means to determine the date of commencement of the Work.)

« »

If a date of commencement of the Work is not selected, then the date of commencement shall be the date of this Agreement.

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

§ 3.3 Substantial Completion of the Project or Portions Thereof

§ 3.3.1 Subject to adjustments of the Contract Time as provided in the Contract Documents, the date of Substantial Completion of each milestone, each phase, and the entire Work of all of the Contractors for the Project will be:

(Insert the date of Substantial Completion of the Work of all Contractors for the Project.)

«Not later than the dates listed in the Contract Documents.»

§ 3.3.2 Intentionally deleted.

§ 3.4 When the Work of this Contract, or any Portion Thereof, is Substantially Complete

§ 3.4.1 Subject to adjustments of the Contract Time as provided in the Contract Documents, the Contractor shall substantially complete the entire Work of this Contract:

(Check one of the following boxes and complete the necessary information.)

☒ [«X»] Not later than the dates listed in the Contract Documents.

☐ [« »] By the following date: « »

§ 3.4.2 Intentionally deleted.

§ 3.4.3 If the Contractor fails to substantially complete the Work of this Contract, or portions thereof, as provided in this Section 3.4, liquidated damages, shall be assessed as set forth in the General Conditions.

ARTICLE 4 CONTRACT SUM

§ 4.1 The Owner shall pay the Contractor the Contract Sum in current funds for the Contractor's performance of the Contract. The Contract Sum shall be:

(Check the appropriate box.)

☒ [«X»] Stipulated Sum, in accordance with Section 4.2 below.

§ 4.2 Stipulated Sum

§ 4.2.1 The Contract Sum shall be « » (\$ « »), subject to additions and deductions as provided in the Contract Documents.

§ 4.2.2 Alternates

§ 4.2.2.1 Alternates, if any, included in the Contract Sum:

Item	Price
	\$

§ 4.2.2.2 Subject to the conditions noted below, the following alternates may be accepted by the Owner following execution of this Agreement. Upon acceptance, the Owner shall issue a Modification to this Agreement.

(Insert below each alternate and the conditions that must be met for the Owner to accept the alternate.)

Item	Price	Conditions for Acceptance

§ 4.2.3 Allowances, if any, included in the Contract Sum: Project Material Allowances included in the Stipulated Sum are listed on Contractor's Bid Form, attached hereto as Exhibit A, and made a part hereof. No quantity limitations shall apply to the Project. The allowances shall be solely owned by the Owner and, as such, the Owner shall have the sole discretion relating to the use of these allowances. Furthermore, any unused portion of the allowances shall be deducted from the Contractor's Contract Sum. The Contractor shall receive no compensation on the unused portion of the allowances. The Contractor will be required to furnish documentation to the Owner evidencing the expenditures to be charged to the allowance and the reasons therefor prior to the Owner's approval of expenditures from the allowances.

§ 4.2.4 Unit prices, if any: Unit Prices as listed on Contractor's Bid Form, attached hereto as Exhibit A, and made a part hereof.

§ 4.3 Intentionally deleted.

§ 4.4 Intentionally deleted.

§ 4.5 Liquidated damages, if any:

(Insert terms and conditions for liquidated damages, if any, to be assessed in accordance with Section 3.4.)

«Liquidated damages for failure to complete on time apply for all Project phases, milestone, and the Work as listed in the Contract Documents. »

§ 4.6 Other:

(Insert provisions for bonus, cost savings or other incentives, if any, that might result in a change to the Contract Sum.)

« »

ARTICLE 5 PAYMENTS

§ 5.1 Progress Payments

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

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

« Except as set forth elsewhere in the Contract Documents, payments to the Contractor will be made monthly for work completed as of the last calendar day of the month or during a period of one calendar month ending on a day mutually agreed to by the Owner and the Contractor provided that all requirements of the Contract Documents have been and are complied with by the Contractor.»

§ 5.1.3 Provided that an Application for Payment is received by the Construction Manager not later than the «twenty-fifth» day of the month, the Owner shall make payment of the amount certified to the Contractor not later than the «last» day of the «following» month. If an Application for Payment is received by the Construction Manager after the application date fixed above, payment of the amount certified shall be made by the Owner not later than «sixty» («60») days after the Construction Manager receives the Application for Payment. The Contractor hereby expressly waives any rights to penalties, interest, and attorney's fees that the Contractor has or may have under the Pennsylvania Prompt Pay Act, 62 Pa.C.S.A. § 3931, et seq. as amended from time to time.

(Federal, state or local laws may require payment within a certain period of time.)

§ 5.1.4 Progress Payments Where the Contract Sum is Based on a Stipulated Sum

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

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

§ 5.1.4.3 In accordance with the General Conditions of the Contract for Construction, and subject to other provisions of the Contract Documents, the amount of each progress payment shall be computed as follows:

§ 5.1.4.3.1 The amount of each progress payment shall first include:

- .1 That portion of the Contract Sum properly allocable to completed Work as determined by multiplying the percentage completion of each portion of the Work by the share of the total Contract Sum allocated to that portion of the Work in the schedule of values, less the retainage; and
- .2 That portion of the Contract Sum properly allocable to materials and equipment delivered and suitably stored at the site for subsequent incorporation in the completed construction, or, if approved in advance by the Owner, suitably stored off the site at a location agreed upon in writing.

§ 5.1.4.3.2 The amount of each progress payment shall then be reduced by:

- .1 The aggregate of any amounts previously paid by the Owner;
- .2 The amount, if any, for Work that remains uncorrected and for which the Architect has previously withheld a Certificate for Payment as provided in Article 9 of the General Conditions;

- .3 Any amount for which the Contractor does not intend to pay a Subcontractor or material supplier, unless the Work has been performed by others the Contractor intends to pay;
- .4 For Work performed or defects discovered since the last payment application, any amount for which the Architect may withhold payment, or nullify a Certificate of Payment in whole or in part, as provided in Article 9 of the General Conditions; and
- .5 Retainage withheld pursuant to Section 5.1.7.

§ 5.1.5 Intentionally deleted.

§ 5.1.6 Intentionally deleted.

§ 5.1.7 Retainage

§ 5.1.7.1 For each progress payment made prior to when the Work of this Contract is substantially complete, the Owner may withhold the following amount, as retainage, from the payment otherwise due:

«Reduction or limitation of retainage shall be as set forth in the General Conditions and elsewhere in the Contract Documents.»

§ 5.1.7.1.1 Intentionally deleted.

§ 5.1.7.2 Intentionally deleted.

§ 5.1.7.3 Intentionally deleted.

§ 5.2 Final Payment

§ 5.2.1 Final Payment Where the Contract Sum is Based on a Stipulated Sum

§ 5.2.1.1 Final payment, constituting the entire unpaid balance of the Contract Sum, shall be made by the Owner to the Contractor as set forth in the General Conditions and when

- .1 the Contractor has fully performed the Contract except for the Contractor's responsibility to correct Work as provided in Article 12 of the General Conditions, and to satisfy other requirements, if any, which extend beyond final payment; and
- .2 a final Certificate for Payment or Project Certificate for Payment has been issued by the Construction Manager or Architect, and
- .3 the Contractor has completed all Work in compliance with all applicable codes, law, ordinances, and regulations which affect the Project and the Work has passed all inspections.

§ 5.2.1.2 Intentionally deleted.

§ 5.2.2 Intentionally deleted.

§ 5.3 Except as otherwise set forth in the Contract Documents, payments due and unpaid under the Contract shall bear interest at a rate of three percent (3%) simple interest per annum from the date the payment is due.

ARTICLE 6 DISPUTE RESOLUTION

§ 6.1 Initial Decision Maker

The Architect will serve as Initial Decision Maker pursuant to Article 15 of the General Conditions.

§ 6.2 Binding Dispute Resolution

For any Claim involving the Contractor and Owner, the method of binding dispute resolution shall be as follows:
(Check the appropriate box.)

[☐] Arbitration pursuant to Article 15 of the General Conditions.

[☐] Litigation in a court of competent jurisdiction.

[☒] Other: (Specify)

«Per Article 15.4 of the General Conditions.»

ARTICLE 7 TERMINATION OR SUSPENSION

§ 7.1 Where the Contract Sum is a Stipulated Sum

§ 7.1.1 The Contract may be terminated by the Owner or the Contractor as provided in Article 14 of the General Conditions.

§ 7.1.1.1 Intentionally deleted.

§ 7.1.2 The Work may be suspended by the Owner as provided in Article 14 of the General Conditions.

§ 7.2 Intentionally deleted.

§ 7.3 Intentionally deleted.

ARTICLE 8 MISCELLANEOUS PROVISIONS

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

§ 8.2 The Owner's representative:

(Name, address, email address, and other information)

«Reading School District»
«Wayne Gehris, Chief Financial Officer»
«800 Washington Street»
«Reading, PA 19601»
«Phone: 484-258-7000»
« »

§ 8.3 The Contractor's representative:

(Name, address, email address, and other information)

« »
« »
« »
« »
« »
« »

§ 8.4 Neither the Owner's nor the Contractor's representative shall be changed without ten days' prior notice to the other party.

§ 8.5 Insurance and Bonds

§ 8.5.1 The Owner and the Contractor shall purchase and maintain insurance as set forth in in Article 11 of the General Conditions, and elsewhere in the Contract Documents.

§ 8.5.2 The Contractor shall provide bonds as set forth in Article 11.1.2 of the General Conditions, and elsewhere in the Contract Documents.

§ 8.6 Intentionally deleted.

§ 8.7 Relationship of the Parties

The Contractor accepts the relationship of trust and confidence established by this Agreement and covenants with the Owner to cooperate with the Architect and exercise the Contractor's skill and judgment in furthering the interests of the Owner; to furnish efficient business administration and supervision; to furnish at all times an adequate supply of workers and materials; and to perform the Work in an expeditious and economical manner consistent with the Owner's interests. The Owner agrees to furnish and approve, in a timely manner, information required by the Contractor and to make payments to the Contractor in accordance with the requirements of the Contract Documents.

§ 8.8 Other provisions:

«§ 8.8.1 As between Architect, Construction Manager and Contractor, it is understood that the Architect and Construction Manager shall not be held responsible to Contractor for any errors or omissions on the part of Contractor, including, but not limited to, the Contractor's failure to adhere to the plans and specifications, regardless of whether or not the Architect or Construction Manager is performing observation services. »

ARTICLE 9 ENUMERATION OF CONTRACT DOCUMENTS

§ 9.1 This Agreement is comprised of the Contract Documents, except for modifications issued after execution of this Agreement, as enumerated in Article 1.1.1 of the General Conditions of the Contract, and includes following documents:

- .1 AIA Document A132™–2019, Standard Form of Agreement Between Owner and Contractor, Construction Manager as Adviser Edition, as amended and modified.
- .2 AIA Document A232™–2019, General Conditions of the Contract for Construction, Construction Manager as Adviser Edition, as amended and modified.
- .3 The Project Manual dated March 2025, its modified Table of Contents attached hereto as Exhibit B and made a part hereof, that shall be deemed to include additions and deletions, if any, made by Addenda as indicated.
- .4 Drawings dated March 2025 as listed in the drawing index on drawing cover sheet(s) shall be deemed to include additions and deletions, if any, made by Addenda.
- .5 Addenda, if any:

Number

Date

- .6 Summary of Exhibits to this Agreement:

- .1 **Exhibit A:** Contractor's completed Bid Form, executed Bid Bond, Agreement of Surety, and executed Non-Collusion Affidavit.
- .2 **Exhibit B:** Project Manual Table of Contents, including any additions/deletions made by Addenda.
- .3 **Exhibit C:** Contractor's executed Performance Bond and executed Payment Bond.
- .4 **Exhibit D:** Contractor's Certificate(s) of Insurance.
- .5 **Exhibit E:** Contractor's completed Public Works Employment Verification Form.

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

OWNER (Signature)

« » « »

(Printed name and title)

CONTRACTOR (Signature)

« » « »

(Printed name and title)

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SECTION 00 61 13.00 – PERFORMANCE AND PAYMENT BOND FORMS

- A. Within ten (10) days of receipt of the Notice of Intent to Award, the successful Bidder shall furnish a Performance Bond (006113.13) and a Payment Bond (006113.16) in the forms provided in these Bid Documents, each in the amount of one hundred percent (100%) of the Contract Sum.
- B. The Attorney-in-Fact who executes the Performance and Payment Bonds on behalf of the surety shall affix to the bonds a certified and current copy of its Power of Attorney, authorizing said Attorney-in-Fact to act on behalf of the surety, and a valid Certificate of Authority from the Pennsylvania Department of Insurance. The Power of Attorney must be dated the same day as the bonds and both the bonds and Power of Attorney shall have affixed the raised corporate seal of the surety.
- C. The Performance and Payment Bonds must be executed by a surety licensed and authorized to conduct business within the Commonwealth of Pennsylvania and named in the current list of companies holding Certificates of Authority as accepted sureties on Federal Bonds and as acceptable reinsuring companies as published in Circular 570 (as amended) by the Audit Staff, Bureau of Government Financial Operations, U.S. Treasury Department, and the amount of the bond shall not exceed the underwriting risk of such surety set forth in said Circular or revision thereof.

END OF SECTION

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SECTION 00 61 13.13 - PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS that we, _____, as Principal (collectively, the "Principal"), and _____, a company organized and existing under the laws of the _____ of _____, having its principal office at _____, and authorized to do business in the Commonwealth of Pennsylvania, as Surety (the "Surety"), are held and firmly bound, jointly and severally, unto the READING SCHOOL DISTRICT, a Pennsylvania School District with an administrative address of 800 Washington Street, Reading, PA 19601, as Obligee (the "Obligee"), as hereinafter set forth in the full and just sum of _____ Dollars and _____ Cents (\$ _____), lawful money of the United States of America, for the payment of which sum we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WITNESSETH THAT:

WHEREAS, the Principal heretofore has submitted to the Obligee a certain Bid dated _____ (the "Bid") to perform certain _____ work for the Obligee, in connection with the Reading School District, 13th & Union Elementary Renovations Project pursuant to plans, specifications and other related documents constituting the Contract Documents, which are incorporated into the Bid by reference (the "Contract Documents"), as prepared by CHA Consulting, Registered Engineers(s), of One East Broad Street, Suite 310, Bethlehem, Pennsylvania; and

WHEREAS, the Obligee is a "Contracting Body" under provisions of Act No. 385 of the General Assembly of the Commonwealth of Pennsylvania, approved by the Governor on December 20, 1967, known and cited as the "Public Works Contractors' Bond Law of 1967" (the "Act"); and

WHEREAS, the Act, in Section 3(a), requires that, before an award shall be made to the Principal by the Obligee in accordance with the Bid, the Principal shall furnish this Performance Bond to the Obligee, with this Performance Bond to become binding upon the Award of the Contract to the Principal by the Obligee in accordance with the Bid; and

WHEREAS, it also is a condition of the Contract Documents that this Performance Bond shall be furnished by the Principal to the Obligee; and

WHEREAS, under the Contract Documents, it is provided, *inter alia*, that if the Principal shall furnish this Performance Bond to the Obligee, and if the Obligee shall make an award to the Principal in accordance with the Bid, then the Principal and the Obligee shall enter into an agreement with respect to performance of such Work (the "Agreement"), the form of which Agreement is set forth in the Contract Documents.

NOW, THEREFORE, the terms and conditions of this Performance Bond are and shall be that if: (a) the Principal well, truly and faithfully shall comply with and shall perform the Work in accordance with the Contract Documents, at the time and in the manner provided in the Contract Documents, and if the Principal shall satisfy all claims and demands incurred in or related to the performance of the Contract Documents by the Principal or growing out of the performance of the Contract Documents by the Principal, and if the Principal shall indemnify completely and shall save harmless the Obligee and all of its officers, agents and employees from any and all costs and damages which the Obligee and all of its elected officials, officers, agents and employees may sustain or suffer by reason of the failure of the Principal to do so, and if the Principal shall reimburse completely and shall pay to the Obligee any and all costs and expenses which the Obligee and all of its officers, agents and employees may incur by reason of any such default or failure of the Principal, including, but not limited to, legal fees (e.g., fees of attorneys, paralegals and other legal professionals) and professional fees resulting from such default or failure of the Principal, and any damages resulting from such default or failure of the Principal in accordance with the Contract Documents, and (b) if the Principal shall remedy, without cost to the Obligee, all defects which may develop during the period of one (1) year from the date of final completion by the Principal and acceptance of the Obligee of the Work, or any extended warranty period provided by Principal, to be performed under the Contract Documents, which defects, in the sole judgment of the Obligee or its legal successors in interest, shall be caused by or shall result from defective or inferior materials or workmanship, then this Performance Bond shall be void; otherwise, this Performance Bond shall be and shall remain in force and effect and all claims, demands, costs, expenses and damages, including, but not limited to, legal fees and professional fees resulting from the default or failure of Principal resulting from such default or failure of the Principal in accordance with the Contract Documents, shall be payable by Principal and Surety upon demand of Obligee;

PERFORMANCE BOND FORM

provided, however, that the obligations of the Surety hereunder shall not exceed the amount of this Performance Bond, as this Performance Bond is amended, whether automatically or in writing, in accordance with the terms hereof.

This Performance Bond is executed and delivered under and subject to the Act, to which reference hereby is made.

The Principal and the Surety agree that any alterations, changes and/or additions to the Contract Documents, and/or any alterations, changes and/or additions to the Work to be performed under the Contract Documents, and/or any giving by the Obligees of any extensions of time for the performance of the Work in accordance with the Contract Documents, and/or any act of forbearance of either the Principal or the Obligees toward the other with respect to the Contract Documents, and/or the reduction of any percentage to be retained by the Obligees as permitted by the Contract Documents, shall not release, and/or discharge, in any manner whatsoever, the Principal and the Surety, or either of them, or their heirs, executors, administrators, successors and assigns, from liability and obligations under this Performance Bond; and the Surety, for value received, does waive notice of any such alterations, changes, additions, extensions of time, acts of forbearance, and/or reduction of retained percentage.

Provided, that it is expressly agreed that this Performance Bond shall be deemed amended automatically and immediately, without formal and separate amendments hereto, upon any amendment to the Contract Documents not increasing the Contract Price in the aggregate by more than twenty percent (20%), so as to bind the Principal and the Surety to the full and faithful performance of the Contract Documents as so amended and the Surety, for value received, does waive notice of any such amendment to the Contract Documents not increasing the Contract Price in the aggregate by more than twenty percent (20%). The term "Amendment", wherever used in this Performance Bond and whether referring to this Performance Bond, or the Contract Documents, shall include, without limitation, any alteration, addition, extension or modification, and of any character whatsoever.

Provided, further, that no final settlement between the Obligees and the Principal shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

In the event that the Obligees incur legal fees for default or enforcement of its rights under the Contract Documents or Performance Bond, the Surety agrees to pay for all reasonable legal fees and costs incurred by the Obligees.

Any dispute resolution proceeding, legal or equitable, under this Performance Bond, shall be instituted in the Court of Common Pleas of Berks County or in the United States District Court for the Eastern District of Pennsylvania and not elsewhere. In such dispute resolution proceeding, Obligees may join both Principal and Surety as parties, and Principal and Surety hereby consent to such joinder, jurisdiction and venue. This Performance Bond shall be governed by, construed and enforced in accordance with the laws of the Commonwealth of Pennsylvania, without regard to principles of conflicts of law.

[Signature page follows]

PERFORMANCE BOND FORM

IN WITNESS WHEREOF, the Principal and the Surety cause this Bond to be signed, sealed and delivered this _____ day of _____, 20_____.

(Individual Principal)

(SEAL)
(signature of individual)

Witness:

Trading and doing business as:

(Partnership Principal)

(Name of Partnership)

Witness:

By: _____(SEAL)
Partner

By: _____(SEAL)
Partner

By: _____(SEAL)
Partner

(Corporate Principal)

(Name of Corporation)

ATTEST:

By: _____(SEAL)
President

CORPORATE SEAL

or (if appropriate)

Witness:

*By: _____
Authorized Representative

*Attach appropriate proof, dated as of the same date as the Bond, evidencing authority to execute on behalf of the corporation.

(Corporate Surety)

(Name of Corporation)

Witness:

**By: _____
Attorney-in-Fact

READING SCHOOL DISTRICT
13TH & UNION ELEMENTARY RENOVATIONS
CHA #093251.00, MARCH 2025

00 61 13.13

PERFORMANCE BOND FORM

**Attach an appropriate power of attorney, dated as of the same date as the Bond, evidencing the authority of the Attorney-in-Fact to act in behalf of the Corporation. Attach a valid Certificate of Authority from the Pennsylvania Department of Insurance.

SECTION 00 61 13.16 - PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS that we, _____, as Principal (collectively, the "Principal"), and _____, a company organized and existing under the laws of the _____ of _____, having its principal office at _____, and authorized to do business in the Commonwealth of Pennsylvania, as Surety (the "Surety"), are held and firmly bound, jointly and severally, unto the READING SCHOOL DISTRICT, a Pennsylvania School District with an administrative address of 800 Washington St., Reading, PA 19601, as Obligee (the "Obligee"), as hereinafter set forth in the full and just sum of _____ Dollars and _____ Cents (\$ _____), lawful money of the United States of America, for the payment of which sum we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WITNESSETH THAT:

WHEREAS, the Principal heretofore has submitted to the Obligee a certain Bid dated _____ (the "Bid") to perform certain _____ work for the Obligee, in connection with the Reading School District, 13th & Union Elementary Renovations Project, pursuant to plans, specifications and other related documents, which are incorporated into the Bid by reference (the "Contract Documents"), as prepared by CHA Consulting., Registered Engineer(s), of Bethlehem, Pennsylvania; and

WHEREAS, the Contract Documents are incorporated into this Bond by reference and made a part hereof; and

WHEREAS, the Obligee, is a "contracting body" under provisions of Act No. 385 of the General Assembly of the Commonwealth of Pennsylvania, approved by the Governor on December 20, 1967, known as and cited as the "Public Works Contractors' Bond Law of 1967" (the "Act"); and

WHEREAS, the Act, in Section 3(a), requires that, before an award shall be made to the Principal by the Obligee, the Principal shall furnish this Payment Bond to the Obligee, with this Payment Bond to become binding upon the award of the contract to the Principal by the Obligee in accordance with the Contract Documents; and

WHEREAS, it also is a condition of the Contract Documents that this Payment Bond shall be furnished by the Principal to the Obligee; and

WHEREAS, under the Contract Documents, it is provided, *inter alia*, that if the Principal shall furnish this Payment Bond to the Obligee, and if the Obligee shall make an award to the Principal, then the Principal and the Obligee shall enter into an agreement with respect to performance of the Work (the "Agreement"), the form of which Agreement is set forth in the Contract Documents.

NOW, THEREFORE, the terms and conditions of this Payment Bond are and shall be that if the Principal and any subcontractor of the Principal to whom any portion of the Work under the Contract Documents shall be subcontracted, and if all assignees of the Principal and of any such subcontractor, promptly shall pay or shall cause to be paid, in full, all money which may be due any claimant supplying labor or materials in the prosecution and performance of the Work in accordance with the Contract Documents, including, without limitation, any amendment, extension or addition to the Contract Documents, for material furnished, labor supplied or labor performed, then this Payment Bond shall be void; otherwise, this Payment Bond shall be and shall remain in force and effect.

This Payment Bond, as provided by the Act, shall be solely for the protection of claimants supplying labor or materials to the Principal, any subcontractor of the Principal any assignees of the Principal, or any assignees of any subcontractor of the Principal in the prosecution of the Work covered by the Contract Documents, including, without limitation, any amendment, extension or addition to the Contract Documents and is conditioned for the prompt payment of all such materials furnished and labor supplied or performed in the prosecution of any portion of the Work. The term "claimant", when used herein and as required by the Act, shall mean any individual, firm, partnership, association or corporation. The phrase "labor or materials" when used herein and as required by the Act, shall include, without limitation, public utility services and reasonable rentals of equipment, but only for periods when the equipment rented is actually used

PAYMENT BOND FORM

at the site of the Work covered by the Contract Documents. As required by the Act, the provisions of this Payment Bond shall be applicable whether or not the material furnished or labor performed enters into and becomes a component part of the public building, public work or public improvement contemplated by the Contract Documents.

As provided and required by the Act, the Principal and the Surety agree that any claimant, who has performed labor or furnished material in the prosecution of the Work in accordance with the Contract Documents, including, without limitation, any amendment, extension or addition to the Contract Documents, and who has not been paid therefore, in full, before the expiration of ninety (90) days after the day on which such claimant performed the last of such labor or furnished the last of such materials for which payment is claimed, may institute an action upon this Payment Bond, in the name of the claimant, in assumpsit, to recover any amount due the claimant for such labor or material; and may prosecute such action to final judgment and may have execution upon the judgment; provided, however, that: (a) any claimant who has a direct contractual relationship with any subcontractor of the Principal or any assignees of any subcontractor of the Principal, but has no contractual relationship, express or implied, with the Principal, may institute an action upon this Payment Bond only if such claimant first shall have given written notice, served in the manner provided in the Act, to the Principal, within ninety (90) days from the date upon which such claimant performed the last of the labor or furnished the last of the materials for which payment is claimed, stating, with substantial accuracy, the amount claimed and the name of the person for whom the Work was performed or to whom the material was furnished; and (b) no action upon this Payment Bond shall be commenced after the expiration of one (1) year from the day upon which the last of the labor was performed or material was supplied, for the payment of which such action is instituted by the claimant and (c) every action upon this Payment Bond shall be instituted in the Court of Common Pleas of Berks County, Pennsylvania, or in the United States District Court for the district in which the project, to which the Agreement relates, is situated, and not elsewhere.

This Payment Bond is executed and delivered under and subject to the Act, to which reference hereby is made.

The Principal and the Surety agree that any alterations, changes and/or additions to the Contract Documents, and/or any alterations, changes and/or additions to the Work to be performed under the Contract Documents, and/or any giving by the Obligee of any extensions of time for the performance of the Work in accordance with the Contract Documents, and/or any act of forbearance of either the Principal or the Obligee toward the other with respect to the Contract Documents, and/or the reduction of any percentage to be retained by the Obligee as permitted by the Contract Documents, shall not release, and/or discharge, in any manner whatsoever, the Principal and the Surety, or either of them, or their heirs, executors, administrators, successors and assigns, from liability and obligations under this Payment Bond; and the Surety, for value received, does waive notice of any such alterations, changes, additions, extensions of time, acts of forbearance and/or reduction of retained percentage.

Provided, that it is expressly agreed that this Payment Bond shall be deemed amended automatically and immediately, without formal and separate amendments hereto, upon amendment to the Contract Documents not increasing the Contract Price more than twenty percent (20%), so as to bind the Principal and the Surety to the full and faithful performance of the Contract Documents as so amended. The term "Amendment", wherever used in this Bond and whether referring to this Bond, the Contract Documents, or the Agreement, shall include any alteration, addition, extension or modification of any character whatsoever.

Provided, further, that no final settlement between the Obligee and the Principal shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

If the Principal is a foreign corporation (incorporated under any laws other than those of the Commonwealth of Pennsylvania) then further terms and conditions of this Payment Bond are and shall be that the Principal or the Surety shall not be discharged from liability on this Payment Bond, nor this Payment Bond surrendered until such Principal files with the Obligee a certificate from the Pennsylvania Department of Revenue evidencing the payment in full of all bonus taxes, penalties and interest, and a certificate from the Bureau of Employment and Unemployment Compensation of the Pennsylvania Department of Labor & Industry, evidencing the payment of all unemployment compensation, contributions, penalties and interest due the Commonwealth from said Principal or any foreign corporation, subcontractors thereunder or for which liability has accrued but the time for payment has not arrived, all in accordance with provisions of the Act of June 10, 1947, P.L. 493, of the Commonwealth of Pennsylvania.

[continued on following page]

PAYMENT BOND FORM

IN WITNESS WHEREOF, the Principal and the Surety cause this Bond to be signed, sealed and delivered this _____ day of _____, 20____.

(Individual Principal)

_____(SEAL)
(signature of individual)

Witness:

Trading and doing business as:

(Partnership Principal)

(Name of Partnership)

Witness:

By: _____(SEAL)
Partner

By: _____(SEAL)
Partner

By: _____(SEAL)
Partner

(Corporate Principal)

(Name of Corporation)

ATTEST:

By: _____(SEAL)
President

CORPORATE SEAL

or (if appropriate)

Witness:

*By: _____

Authorized Representative

*Attach appropriate proof, dated as of the same date as the Bond, evidencing authority to execute in behalf of the corporation.

(Corporate Surety)

(Name of Corporation)

Witness:

**By: _____

Attorney-in-Fact

**Attach an appropriate power of attorney, dated as of the same date as the Bond, evidencing the authority of the Attorney-in-Fact to act in behalf of the Corporation. Attach a valid Certificate of Authority from the Pennsylvania Department of Insurance.

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

01/01/20xx

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER BEST INSURANCE AGENCY 123 MAIN ST ANYTOWN PA #####	CONTACT NAME: PHONE: 610.868.8507		FAX: 610.868.7604
	(A/C, No, Ext):		(A/C, No):
E-MAIL ADDRESS: PRODUCER CUSTOMER ID #:			
INSURED BEST CONTRACTING INC 123 MAIN ST ANYTOWN, PA #####	INSURER(S) AFFORDING COVERAGE		NAIC #
	INSURER A : INSURANCE COMPANY		
	INSURER B :		
	INSURER C :		
	INSURER D :		
	INSURER E :		
	INSURER F :		

COVERAGES

CERTIFICATE NUMBER: SAMPLE COI

REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	GENERAL LIABILITY			123456789	DATE	DATE	EACH OCCURRENCE \$ CONTRACT
	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY						DAMAGE TO RENTED PREMISES (Ea occurrence) \$ CONTRACT
	<input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR						MED EXP (Any one person) \$ CONTRACT
							PERSONAL & ADV INJURY \$ CONTRACT
							GENERAL AGGREGATE \$ CONTRACT
							PRODUCTS - COMP/OP AGG \$ CONTRACT
	GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input type="checkbox"/> PROJECT <input type="checkbox"/> LOC						\$
A	AUTOMOBILE LIABILITY			123456789	DATE	DATE	COMBINED SINGLE LIMIT (Ea accident) \$ CONTRACT
	<input checked="" type="checkbox"/> ANY AUTO						BODILY INJURY (Per person) \$
	<input type="checkbox"/> ALL OWNED AUTOS						
	<input type="checkbox"/> SCHEDULED AUTOS						BODILY INJURY (Per accident) \$
	<input type="checkbox"/> HIRED AUTOS						PROPERTY DAMAGE (Per accident) \$
	<input type="checkbox"/> NON-OWNED AUTOS						\$
							\$
B	UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR			123456789	DATE	DATE	EACH OCCURRENCE \$ CONTRACT
	EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE						AGGREGATE \$ CONTRACT
	DEDUCTIBLE						\$
	RETENTION \$						\$
C	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY			123456789	DATE	DATE	<input checked="" type="checkbox"/> WC STATUTORY LIMITS <input type="checkbox"/> OTHER
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH)	<input type="checkbox"/> Y / <input type="checkbox"/> N	N / A				E.L. EACH ACCIDENT \$ CONTRACT
	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - EA EMPLOYEE \$ CONTRACT
							E.L. DISEASE - POLICY LIMIT \$ CONTRACT
	POLLUTION LIABILITY			123456789	DATE	DATE	\$ CONTRACT

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

UMBRELLA# (INSERT POLICY NUMBER) PROVIDES EXCESS COVERAGE OVER GENERAL LIABILITY, AUTO, AND WORKERS COMPENSATION. READING SCHOOL DISTRICT, AEM ARCHITECTS, CHA AND ALL CONSULTANTS; AND EACH OF THE OFFICERS, AGENTS, AND EMPLOYEES, THE CITY OF READING AND ITS EMPLOYEES AND BERKS COUNTY CONSERVATION DISTRICT ARE NAMED AS ADDITIONAL INSURED ON ALL POLICIES PERTAINING TO THIS PROJECT.

CERTIFICATE HOLDER

CANCELLATION

Reading School District 800 Washington Street Reading, PA 19601	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED TO THE CERTIFICATE HOLDER THIRTY (30) DAYS BEFORE THE EFFECTIVE DATE OF ANY SUCH CANCELLATION IN ACCORDANCE WITH THE POLICY PROVISIONS.
	AUTHORIZED REPRESENTATIVE

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CONSTRUCTION DOCUMENTS ABBREVIATIONS

SECTION 00 72 50 - CONSTRUCTION DOCUMENTS ABBREVIATIONS

The following abbreviations shall not be considered all inclusive. Additional abbreviations not listed which have well known technical or trade meanings shall be used in accordance with such recognized meanings.

GENERAL CONSTRUCTION

Ⓒ	CENTER OR CENTER LINE	CI	CLEAR INSULATING
⒲	PLATE	CIP	CAST IRON PIPE
A	ANGLE	CIV	CIVIL
A	AMPERE	CIRC	CIRCULATING PUMP
A/C	AIR CONDITIONING	CJ	CONTROL JOINT
AAT	AMBIENT AIR TEMPERATURE	CJ	CONSTRUCTION JOINT
AB	ANCHOR BOLT	CL	CENTERLINE
ABV	ABOVE	CLG	CEILING
AC	AIR CONDITIONING	CLOS	CLOSET
AC CMU	ACOUSTICAL CONCRETE MASONRY UNIT	CMP	CORRUGATED METAL PIPE
ACOUST	ACOUSTIC	CMT	CERAMIC MOSAIC TILE
AD	AREA DRAIN	CMU	CONCRETE MASONRY UNIT
AFF	ABOVE FINISHED FLOOR	CO	CLEANOUT
ALT	ALTERNATE	COL	COLUMN
ALUM	ALUMINUM	COMB	COMBINATION
ANOD	ANODIZED	CONC	CONCRETE
AP	ACOUSTICAL PANEL	CONNX	CONNECTION
APD	AIR PRESSURE DROP	CONSTR	CONSTRUCTION
APPROX	APPROXIMATE	CONT	CONTINUOUS
ARCH	ARCHITECT(URAL)	CONTR	CONTRACT(OR)
ATC	AUTOMATIC TEMPERATURE CONTROL	COORD	COORDINATE
B&B	BALLED AND BURLAPPED	CR	CARD READER
BD	BALANCING DAMPER	CS	COUNTERTOP SINK
BDD	BACKDRAFT DAMPER	CT	CERAMIC TILE
BEJ	BRICK EXPANSION JOINT	CT	CLEAR TEMPERED
BIT	BITUMINOUS	CTI	CLEAR TEMPERED INSULATING
BLDG	BUILDING	CTRL	CONTROL
BLK'G	BLOCKING	CW	CHILLED WATER
BLW	BELOW	CW	CLEAR WIRE
BC	BOTTOM OF CURB	CW	COLD WATER
BOD	BOTTOM OF DUCT	CW	CURTAINWALL
BOF	BOTTOM OF FOOTING	CWR	CHILLED WATER RETURN
BOS	BOTTOM OF STEEL	CWS	CHILLED WATER SUPPLY
BR	BLAST RESISTANT	DB	DRY BULB
BRG	BEARING	DBA	DEFORMED BAR ANCHOR
BRK	BRICK	DEPT	DEPARTMENT
BS	BOTH SIDES	DTL	DETAILS
BSMT	BASEMENT	DF	DRINKING FOUNTAIN
BTU	BRITISH THERMAL UNIT	DH	DUCT HEATER
BTUH	BRITISH THERMAL UNITS PER HOUR	DIAG	DIAGONAL
BUR	BUILT-UP ROOF	DIA/DIAM	DIAMETER
C	COURSES	DIM(S)	DIMENSION(S)
CAB	CABINET	DIP	DUCTILE IRON PIPE
CARP	CARPET	DL	DEAD LOAD
CARP T	CARPET TILE	DL	DOOR LOUVER
CB	CATCH BASIN	DN	DOWN
CFM	CUBIC FEET PER MINUTE	DO	DITTO
CH	CABINET HEATER	DPR	DAMPER
CI	CAST IRON	DPRV	DIFFERENTIAL PRESSURE REGULATING VALVE
		DR	DOOR
		DTR	DUCT THRU ROOF

CONSTRUCTION DOCUMENTS ABBREVIATIONS

DW	DISHWASHER	GL BLK	GLASS BLOCK
DWGS	DRAWINGS	GL	GLASS
EA	EACH	GPH	GALLONS PER HOUR
EAT	ENTERING AIR TEMPERATURE	GWB	GYPSUM WALLBOARD
EC	ELECTRICAL CONTRACTOR	GWT	GLAZED WALL TILE
EER	ENERGY EFFICIENCY RATIO	GYP BD	GYPSUM BOARD
EF	EACH FACE	H	FIXTURE FOR HANDICAPPED
EF	EXHAUST FAN	H	HIGH
EIFS	EXTERIOR INSULATION & FINISH SYSTEM	HB	HOSE BIBB
EJ	EXPANSION JOINT	HC	HEATING CONTRACTOR
ELEC	ELECTRIC OR ELECTRICAL	HCP	HANDICAPPED
ELEV	ELEVATION	HDPE	HIGH DENSITY
ELEV	ELEVATOR	HDWD	POLYETHYLENE PIPE
ENT FL	ENTRANCE FLOORING	HGTD	HARDWOOD
EPDM	ETHYLENE PROPYLENE	HGT	HEIGHT
	DIENE MONOMER	HM	HOLLOW METAL
EPX	EPOXY COATING	HORIZ	HORIZONTAL
EQ	EQUAL	HP	HIGH POINT
EQUIP	EQUIPMENT	HP	HORSEPOWER
ERD	EMERGENCY ROOF DRAIN	HTR	HEATER
EW	EACH WAY	HVAC	HEATING, VENTILATING AND AIR CONDITIONING
EWC	ELECTRIC WATER COOLER	HW	HOT WATER
EWTD	ENTERING WATER TEMPERATURE	HWH	HOT WATER HEATER
EXH	EXHAUST	HWR	HOT WATER RETURN
EX/EXIST	EXISTING	HWS	HOT WATER SUPPLY
EXP	EXPANSION	HZ	HERTZ
EXP STRUCT	EXPOSED STRUCTURE	ID	INSIDE DIAMETER
EXT	EXTERIOR	IN	INCH/INCHES
F&B	FACE AND BYPASS	INFO	INFORMATION
F&T	FLOAT AND TEMPERATURE	INSUL	INSULATION/INSULATED
F.T.	FIN TUBE RADIATION	INT PNT	INTUMESCENT PAINT
FAAF	FLUID APPLIED ATHLETIC FLOORING	INT	INTERIOR
FAV	FRESH AIR VENT	INV	INVERT
FB	FACE BRICK	JAN	JANITOR
FC	FAN COIL UNIT	JST	JOIST
FCP	FIBER CEMENT PANEL	JT	JOINT
FD	FLOOR DRAIN	KW	KILOWATT
FDN	FOUNDATION	LAV	LAVATORY
FE	FIRE EXTINGUISHER	LAV'S	LAVATORIES
FEC	FIRE EXTINGUISHER CABINET	LB	POUND
FHC	FIRE HOSE CABINET	LG/L	LENGTH/LONG
FIN	FINISHED	LH	LOUVER HOUSE INTAKE W/CURB ON ROOF
FIN FLR	FINISHED FLOOR	LL	LIVE LOAD
FIN GR	FINISHED GRADE	LLH	LONG LEG HORIZONTAL
FLR	FLOOR	LLV	LONG LEG VERTICAL
FLR MT	FLOOR MAT	LP	LOW POINT
FPM	FEET PER MINUTE	LVR	LOUVER
FRZ	FREEZER	MAS	MASONRY
FS	FLOOR SINK	MAT'L	MATERIAL
FS	FOOD SERVICE	MAX	MAXIMUM
FT	FOOT/FEET	MB	MOP BASIN
FTG	FOOTING	MB	MARKER BOARD
FU	FIXTURE UNITS	MBH	THOUSANDS OF BTU'S PER HOUR
FURN	FURNITURE	MC	MECHANICAL CONTRACTOR
GA	GAGE/GAUGE	MCA	MINIMUM CURRENT AMPACITY
GAL	GALLON	MD	MOTORIZED DAMPER
GALV	GALVANIZED	MECH	MECHANICAL
GC	GENERAL CONTRACTOR	MEP	MECHANICAL, ELECTRICAL, PLUMBING
GFRG	GLASS FIBER REINFORCED GYPSUM		
GH	GROUND HYDRANT		

CONSTRUCTION DOCUMENTS ABBREVIATIONS

MFG	MANUFACTURING	REQ/REQ'D	REQUIRED
MFR	MANUFACTURER	RES FL	RESINOUS FLOORING
MH	MANHOLE	RET	RETAINING
MIN	MINIMUM	REV	REVISED
MISC	MISCELLANEOUS	RLF	RELIEF
MO	MASONRY OPENING	RM	ROOM
MTD	MOUNTED	RO	ROUGH OPENING
MTL/MATL	MATERIAL	ROW	RIGHT OF WAY
MTL	METAL	RSIF	RUBBER SPORTS IMPACT FLOORING
N/A	NOT APPLICABLE	RUB	RUBBER
NC	NORMALLY CLOSED	RV	RELIEF VENT
NIC	NOT IN CONTRACT	RWC	RAIN WATER CONDUCTOR
NO	NUMBER	S	SLOPE
NS/FS	NEAR SIDE/FAR SIDE	S	SOIL LINE/STACK
NTS	NOT TO SCALE	SAN	SANITARY
Ø	PHASE OR DIAMETER	SCHED	SCHEDULE
OA	OUTSIDE AIR	SD	SHOWER DRAIN
OA	OVERALL	SD	SMOKE DETECTOR
OBD	OPPOSED BLADE DAMPER	SECT	SECTION
OC	ON CENTER	SEAL C	SEALED CONCRETE
OD	OUTSIDE DIAMETER	SEE	SEE EXTERIOR ELEVATION
OFF	OFFICE	SEP	SEE ENLARGED PLAN
OPD	OVERCURRENT	SG	SPANDREL GLASS
	PROTECTIVE DEVICE	SH	SHOWER
OPG/OPNG	OPENING	SHT	SHEET/SHEETING
OPP	OPPOSITE	SIE	SEE INTERIOR ELEVATION
P	PRESSURE GAGE		FOR ADDITIONAL INFORMATION
PC	PIECE	SIM	SIMILAR
PC	PLUMBING CONTRACTOR	SLV	SLEEVE
PD	PRESSURE DROP	SOL S	SOLID SURFACE
PH	POST HYDRANT	SP	STATIC PRESSURE
PL	PLATE	SPA	SPACES/SPACING
PLAS LAM	PLASTIC LAMINATE	SPC	SYNTHETIC PLASTER CEILING
PLBG	PLUMBING	SPEC(S)	SPECIFIED/SPECIFICATIONS
PLF	POUNDS PER LINEAR FOOT	SQ	SQUARE
PLY WD	PLYWOOD	SQ FT/SF	SQUARE FEET
PNL	PANEL	SRCP	SEE REFLECTED CEILING PLAN
PNT	PAINT		FOR ADDITIONAL INFORMATION
POR T	PORCELAIN TILE	SS	SERVICE SINK
PROJ	PROJECTION/PROJECT	SS/SST	STAINLESS STEEL
PRV	PRESSURE REDUCING VALVE	STD	STANDARD
PSF	POUNDS PER SQUARE FOOT	STL JST	STEEL JOIST
PSI	POUNDS PER SQUARE INCH	STL	STEEL
PT	POINT	STOR/STO	STORAGE
PT	PRESSURE TREATED	STRUCT	STRUCTURAL
PTD	PAINTED	SUB	SUBCONTRACTOR
PVC	POLYVINYL CHLORIDE	SUS/SUSP	SUSPENDED
QT	QUARRY TILE	SYM	SYMMETRY/SYMMETRICAL
QTY	QUANTITY	SYS	SYSTEM
R	RADIUS	T	THERMOMETER
R	RISERS	T&G	TONGUE AND GROOVE
RA	RETURN AIR	TB	TACKBOARD
RB	RUBBER BASE	TBR	TO BE REMOVED
RCP	REINFORCED CONCRETE PIPE	TEMP	TEMPERATURE
RCP	REFLECTED CEILING PLAN	TER	TERRAZZO
RD	ROOF DRAIN	TGL	TEMPERED GLASS
RDO	ROOF DRAIN W/OVERFLOW	THK	THICK
RE:	REFERENCE	THRES	THRESHOLD
REFL	REFLECTED	TJ	TOP OF JOIST
REFRIG/REF	REFRIGERATOR	TLT	TOILET
REINF	REINFORCED OR REINFORCING	TMV	THERMOSTATIC MIXING VALVE

CONSTRUCTION DOCUMENTS ABBREVIATIONS

TOC	TOP OF CONCRETE OR CURB	VIF	VERIFY IN FIELD
TOF	TOP OF FOOTING	VTR	ROOF VENT
TOM	TOP OF MASONRY	VWF	VINYL WALL FABRIC
TO	TOP OF	W	WASTE
TOS	TOP OF STEEL	W	WIDTH
TOW	TOP OF WALL	W/	WITH
TPO	THERMOSPLASTIC PLOYOLEFIN	W CARP	WALL CARPET
TT	TERRAZZO TILE	WB	WET BULB
TTI	TINTED TEMPERED INSULATING	WC	WATER CLOSET
TUB	BATHTUB	WD	ATH FLR WOOD ATHLETIC FLOORING
TV	TELEVISION	WD	WOOD
TWP	TRANSLUCENT WALL PANEL	WF	WASHFOUNTAIN
TYP	TYPICAL	WF	WIDE FLANGE
UC	UNDERCUT	WH	WALL HYDRANT
UH	UNIT HEATER	WH	WATER HEATER
UNO	UNLESS NOTED OTHERWISE	WM	WIRE MESH
UR	URINAL	W/O	WITHOUT
UV	UNIT VENTILATOR	WP	WEATHERPROOF
V	VENT	WP	WORK POINT
V	VOLT	WT	WEIGHT
VB	VINYL BASE	WTW	WALL TO WALL
VCT	VINYL COMPOSITION TILE	WWF	WELDED WIRE FABRIC
VERT	VERTICAL	YD	YARD
VEST	VESTIBULE		

PLUMBING – HVAC – ELECTRICAL – FIRE PROTECTION CONSTRUCTION

The following abbreviations shall not be considered all inclusive. Additional abbreviations not listed which have well known technical or trade meanings shall be used in accordance with such recognized meanings.

ABV	ABOVE	CU	CONDENSING UNIT
AC	DUCTLESS AIR CONDITIONER	CW	COLD WATER
AFF	ABOVE FINISHED FLOOR	CWR	CHILLED WATER RETURN
AFG	ABOVE FINISHED GRADE	CWS	CHILLED WATER SUPPLY
AHU	INDOOR AIR HANDLING UNIT	D	DIFFUSER
ALUM	ALUMINUM	DCW	DOMESTIC COLD WATER
APPROX	APPROXIMATELY	DHW	DOMESTIC HOT WATER
ARCH	ARCHITECTURAL	DHWR	DOMESTIC HOT WATER RETURN
AS	AIR SEPARATOR	DN	DOWN
ATS	AUTOMATIC TRANSFER SWITCH	DN	DOWN
B	BOILER	DS	DUCT SILENCER
BD	BALANCING DAMPER – MANUAL	DWG	DRAWING
BDD	BACKDRAFT DAMPER	DWV	DRAIN WASTE VENT PIPING
BEL	BELOW	EC	ELECTRICAL CONTRACTOR
BMS	BUILDING MANAGEMENT SYSTEM	EF	EXHAUST FAN
C	CONDUIT	EL	ELEVATION
C	CONVECTOR	EP	EXPLOSION PROOF
CA	COMPRESSED AIR	ERU	ENERGY RECOVERY UNIT
CD	CONDENSATE DRAIN	ESP	EXTERNAL STATIC PRESSURE
CFM	CUBIC FEET PER MINUTE	ET	EXPANSION TANK
CH	CABINET HEATER	EUH	ELECTRIC UNIT HEATER
CHLR	AIR COOLED CHILLER	EXH	EXHAUST AIR
CIP	CAST IRON PIPE	EXIST	EXISTING
CLG	CEILING	FCO	FLOOR CLEANOUT
CO	CLEANOUT	FD	FIRE DAMPER
COND	CONDENSATE	FD-X	FLOOR DRAIN
CONN	CONNECT	FF	FINISHED FLOOR
COOR	COORDINATE	FLR	FLOOR
CR	CONDENSER RETURN	FP	FIRE PROTECTION
CS	CONDENSER SUPPLY	FPV	FAN POWERED VAV BOX

CONSTRUCTION DOCUMENTS ABBREVIATIONS

FT	FINNED TUBE	S	SOFTENED WATER
G	GAS	SA	SUPPLY AIR
G	GRILLE	SAN	SANITARY
G	GROUND	SD	SLOT DIFFUSER
GC	GENERAL CONTRACTOR	SH	SHOWER
GF	GROUND FAULT INTERRUPTER	SIM	SIMILAR
GTC	GENERAL TRADES CONTRACTOR	SOV	SHUT-OFF VAV BOX
H	HUMIDISTAT	SQ. FT.	SQUARE FEET
HC	HEATING CONTRACTOR	SR	SUPPLY REGISTER
HP	HORSEPOWER	SW	SWITCH
HW	HOT WATER	T-STAT	THERMOSTAT
HWR	HOT WATER RETURN	T/A	TRANSFER AIR
HWS	HOT WATER SUPPLY	TL	TWIST-LOCK
IDW	INDIRECT WASTE RECEPTOR	TYP	TYPICAL
IE	INVERT ELEVATION	UH	UNIT HEATER
INV	INVERT	UNO	UNLESS NOTED OTHERWISE
L	LOUVER	UR	URINAL
LAV	LAVATORY	V	VENT
LPG	LP GAS	VAV	VARIABLE AIR VOLUME BOX
MAU	MAKE-UP AIR UNIT	VD	VOLUME DAMPER
MOD	MOTOR OPERATED DAMPER	VFD	VARIABLE FREQUENCY DRIVE
MU	MAKE-UP WATER	VTR	VENT THRU ROOF
N.O.	NORMALLY OPEN	W/	WITH
NIC	NOT IN CONTRACT	W/O	WITHOUT
OA	OUTSIDE AIR	WC	WATER CLOSET
OAI	OUTSIDE AIR INTAKE	WCO	WALL CLEANOUT
OD	OVERFLOW ROOF DRAIN	WH	WALL HEATER
P	PUMP	WH	WALL HYDRANT
PC	PLUMBING CONTRACTOR	WP	WEATHERPROOF
PIV	POST INDICATING VALVE		
RA	RETURN AIR		
RC	ROOF CONTRACTOR		
RD	ROOF DRAIN		
REQ'D	REQUIRED		
RL	REFRIGERANT LIQUID		
RND	ROUND		
RS	REFRIGERANT SUCTION		
RV	GRAVITY RELIEF VENT		
RWC	RAIN WATER		

END OF SECTION 007250

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SECTION 00 73 43 - PREVAILING WAGE RATE REQUIREMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. Prevailing Wage Act.
 - 2. Pennsylvania Prevailing Wage Determination Schedule follows as Section 007346.13.
 - 3. Pennsylvania Department of Labor and Industry "Weekly Payroll Certification for Public Works Projects" Form LLC-25 follows as Section 07346.16.

1.3 Prevailing Wage Rates

- A. The general provisions of the Pennsylvania Prevailing Wage Act, approved August 15, 1961, as amended are applicable to this project.
- B. The general prevailing minimum wage rates including contributions for employee benefits as shall have been determined by the Secretary of Labor and Industry (hereinafter "Secretary"), which must be paid to the workmen, employed in the performance of the Contract.
- C. The Contractor shall pay no less than the wage rates as determined in the decision of the Secretary and shall comply with the conditions of the Pennsylvania Prevailing Wage Act approved August 15, 1961 (Act No. 442), as amended August 9, 1963 (Act No. 342), and the Regulations issued pursuant thereto, to assure the full and proper payment of said rates.
- D. These Contract provisions shall apply to all work performed on the Contract by the Contractor and to all work performed on the Contract by all subcontractors.
- E. The Contractor shall insert in each of his subcontracts all of the stipulations contained in these required provisions.
- F. No workmen may be employed on the Work except in accordance with the classifications set forth in the decision of the Secretary. In the event that additional or different classifications are necessary, the procedure set forth in the Regulations shall be followed.
- G. All workmen employed or working on the Work shall be paid unconditionally, regardless of whether any contractual relationship exists or the contractual relationship which may be alleged to exist between any contractor, subcontractor, and workmen, not less than once a week without deductions or rebate, on any account, either directly or indirectly, except authorized deductions, the full amount due at the time of payment, computed at the rates applicable to the time worked in the appropriate classification. Nothing in this Contract, the Act or the Regulations shall prohibit the payment of more than the general prevailing minimum wage rates as determined by the Secretary to the workmen on the Work.
- H. The Contractor and each subcontractor shall post for the entire period of construction the wage determination decisions of the Secretary, including the effective date of any changes thereof, in a prominent

PREVAILING WAGE RATE REQUIREMENTS

and easily accessible place or places at the site of the work and at such place or places used by them to pay workmen their wages. The posted notice of wage rates must contain the following information:

1. Name of project.
 2. Name of public body of which it is constructed.
 3. The crafts and classifications of workmen listed in the Secretary's general prevailing minimum wage rate determination for the particular project.
 4. The general prevailing minimum wage rates determined for each craft and classification and the effective date of any changes.
 5. A statement advising workmen that if they have been paid less than the general prevailing minimum wage rate for their job classification or that the Contractor and/or subcontractor are not complying with the Act or the Regulations in any manner whatsoever, they may file a protest with the Secretary within three (3) months of the date of the occurrence, objecting to the payment to the Contractor to the extent of the amount or amounts due or to become due to them as wages for work performed on the Project. Any workmen paid less than the rate specified in the Contract shall have a civil right of action for the difference between the wage paid and wages stipulated in the Contract, which right of action must be exercised within six (6) months from the occurrence of the event creating such right.
- I. The Contractor and all subcontractors shall keep an accurate record **showing the name, craft and/or classification, number of hours worked per day, and the actual hourly rate of wage paid (including employee benefits) to each workman employed by him in connection with the Work and such record must include any deductions from each workman.** The record shall be preserved for two (2) years from the date of payment and shall open at all reasonable hours to the inspection of the Owner and to the Secretary or his duly authorized representative.
1. Apprentices shall be limited to such numbers as shall be in accordance with a bona fide apprenticeship program registered with and approved by the Pennsylvania Apprenticeship and Training Council and only apprentices whose training and employment are in full compliance with the provisions of the Apprenticeship and Training Act approved July 14, 1961 (Act No. 304) and the Rules and Regulation issued pursuant thereto shall be employed on the Work. Any workmen using the tools of a craft that does not qualify as an apprentice within the provisions of this submission shall be paid the rate predetermined for journeyman in that particular craft and/or classification.
- J. Wages shall be paid without any deductions except authorized deductions. Employers not party to a contract requiring contributions for employee benefits which the Secretary has determined to be included in the general prevailing minimum wage rate shall pay the monetary equivalent thereof directly to the workman.
- K. Payment of compensation to workmen for work performed on public work on a lump sum basis, or apiece work system, or a price certain for the completion of a certain amount of work, or the production of a certain result shall be deemed a violation of the Act and the Regulations, regardless of the average hourly earnings resulting therefrom.
- L. Each Contractor and each subcontractor shall file a statement each week and a final statement at the conclusion of the Work on the Contract with Owner, under oath, and in form satisfactory to the Secretary, certifying that all workmen have been paid wages in strict conformity with the provisions of the Contract as prescribed by the Regulations, or if any wages remain unpaid, to the amount of wages due and owing to each workman respectively.
- M. The provision of the Act and the Regulations are incorporated by reference in the Contract.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

- A. Prevailing wage certification forms are to be produced weekly and are to be submitted monthly. Prevailing

PREVAILING WAGE RATE REQUIREMENTS

wage certificates are to be sent to Architect and CM with a pencil copy of the Application for Payment. No Applications for Payment will be processed without the proper prevailing wage certificates. Contractor may be requested to submit the prevailing wage certification forms in any of the following manners:

1. If hard paper copies are submitted, Contractor shall submit two (2) copies of each prevailing wage certification form.
 2. If digital copies are submitted, Contractor shall submit to Architect and CM in PDF form.
 3. Redacted certified payroll:
 - a. Prevailing wage certification forms submitted to the Owner may not be redacted by law; however, if there is a Project Right-to-Know request, the Contractor will be required to submit redacted prevailing wage certification forms **in addition** to the required unredacted forms. The following information may be redacted:
 - 1) Employee Name
 - 2) Employee Address
 - 3) Employee Social Security Number
- B. Contractor shall use the Commonwealth of Pennsylvania Department of Labor and Industry Form LLC-25 (form can be accessed at: <http://www.dli.pa.gov/Individuals/Labor-Management-Relations/Documents/llc-25.pdf>), as revised from time to time, and ensure proper classification of workmen are assigned to each person. Certificates must be filled out in their entirety. Form is included as Specification Section 007346.16. Certified Payroll submitted on U.S. Wage and Hour Division forms are NOT accepted and will be returned to the Contractor.
- C. Regardless of the submission type, the first and the final certification forms must be notarized, signed, and dated.

END OF SECTION

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BUREAU OF LABOR LAW COMPLIANCE PREVAILING WAGES PROJECT RATES

Project Name:	13th & Union Elementary School Renovations
General Description:	Window and Exterior Door Replacements and other work as indicated in the Contract Documents.
Project Locality	Reading
Awarding Agency:	Reading School District
Contract Award Date:	4/24/2025
Serial Number:	25-02506
Project Classification:	Building
Determination Date:	3/10/2025
Assigned Field Office:	Scranton
Field Office Phone Number:	(570)963-4577
Toll Free Phone Number:	(877)214-3962
Project County:	Berks County

BUREAU OF LABOR LAW COMPLIANCE PREVAILING WAGES PROJECT RATES

Project: 25-02506 - Building	Effective Date	Expiration Date	Hourly Rate	Fringe Benefits	Total
Asbestos & Insulation Workers	6/26/2023		\$38.70	\$29.11	\$67.81
Asbestos & Insulation Workers	7/1/2024		\$40.00	\$29.86	\$69.86
Boilermaker (Commercial, Institutional, and Minor Repair Work)	3/1/2024		\$36.71	\$19.13	\$55.84
Boilermakers	1/1/2023		\$51.27	\$35.30	\$86.57
Boilermakers	1/1/2024		\$52.10	\$35.72	\$87.82
Bricklayers, Stone Masons, Pointers, Caulkers, Cleaners	4/30/2023		\$39.98	\$17.17	\$57.15
Bricklayers, Stone Masons, Pointers, Caulkers, Cleaners	4/28/2024		\$39.83	\$19.17	\$59.00
Bricklayers, Stone Masons, Pointers, Caulkers, Cleaners	5/4/2025		\$41.68	\$19.17	\$60.85
Bricklayers, Stone Masons, Pointers, Caulkers, Cleaners	5/3/2026		\$43.53	\$19.17	\$62.70
Carpenters, Drywall Hangers, Framers, Instrument Men, Lathers, Soft Floor Layers	6/1/2022		\$33.56	\$17.72	\$51.28
Carpenters, Drywall Hangers, Framers, Instrument Men, Lathers, Soft Floor Layers	6/1/2023		\$35.06	\$17.72	\$52.78
Carpenters, Drywall Hangers, Framers, Instrument Men, Lathers, Soft Floor Layers	6/1/2024		\$36.56	\$17.72	\$54.28
Cement Finishers & Plasterers	4/30/2023		\$28.23	\$22.27	\$50.50
Cement Finishers & Plasterers	4/28/2024		\$30.23	\$22.27	\$52.50
Cement Finishers & Plasterers	5/4/2025		\$32.23	\$22.27	\$54.50
Cement Finishers & Plasterers	5/3/2026		\$34.23	\$22.27	\$56.50
Cement Masons	5/1/2023		\$34.15	\$20.60	\$54.75
Cement Masons	5/1/2024		\$34.85	\$20.90	\$55.75
Dockbuilder, Pile Drivers	5/1/2023		\$50.48	\$37.99	\$88.47
Dockbuilder, Pile Drivers	5/1/2024		\$52.98	\$37.99	\$90.97
Dockbuilder, Pile Drivers	5/1/2025		\$55.23	\$37.99	\$93.22
Dockbuilder, Pile Drivers	5/1/2026		\$56.98	\$37.99	\$94.97
Dockbuilder/Pile Driver Diver	5/1/2023		\$58.41	\$41.74	\$100.15
Dockbuilder/Pile Driver Diver	5/1/2024		\$61.54	\$41.74	\$103.28
Dockbuilder/Pile Driver Diver	5/1/2025		\$64.35	\$41.74	\$106.09
Dockbuilder/Pile Driver Diver	5/1/2026		\$66.54	\$41.74	\$108.28
Dockbuilder/pile driver tender	5/1/2023		\$50.48	\$37.99	\$88.47
Dockbuilder/pile driver tender	5/1/2024		\$52.98	\$37.99	\$90.97
Dockbuilder/pile driver tender	5/1/2025		\$55.23	\$37.99	\$93.22
Dockbuilder/pile driver tender	5/1/2026		\$56.98	\$37.99	\$94.97
Drywall Finisher	5/1/2023		\$30.10	\$22.14	\$52.24
Drywall Finisher	5/1/2024		\$30.33	\$22.79	\$53.12
Electricians	9/1/2023		\$42.02	\$25.69	\$67.71
Electricians	9/2/2024		\$44.52	\$26.83	\$71.35
Elevator Constructor	1/1/2023		\$56.46	\$38.36	\$94.82
Elevator Constructor	1/1/2024		\$58.88	\$43.90	\$102.78
Elevator Constructor	1/1/2025		\$61.41	\$44.95	\$106.36
Floor Coverer	5/1/2023		\$36.21	\$18.36	\$54.57
Floor Coverer	5/1/2024		\$37.64	\$18.36	\$56.00

BUREAU OF LABOR LAW COMPLIANCE PREVAILING WAGES PROJECT RATES

Project: 25-02506 - Building	Effective Date	Expiration Date	Hourly Rate	Fringe Benefits	Total
Glazier	5/1/2023		\$37.71	\$23.68	\$61.39
Glazier	5/1/2024		\$39.48	\$23.81	\$63.29
Iron Workers (Bridge, Structural Steel, Ornamental, Precast, Reinforcing)	7/1/2023		\$36.26	\$31.38	\$67.64
Iron Workers (Bridge, Structural Steel, Ornamental, Precast, Reinforcing)	7/1/2024		\$37.26	\$32.63	\$69.89
Laborers (Class 01 - See notes)	5/1/2023		\$27.62	\$16.77	\$44.39
Laborers (Class 01 - See notes)	5/1/2024		\$28.17	\$17.29	\$45.46
Laborers (Class 02 - see notes)	5/1/2023		\$29.62	\$16.77	\$46.39
Laborers (Class 02 - see notes)	5/1/2024		\$30.17	\$17.29	\$47.46
Laborers (Class 03 - See notes)	5/1/2023		\$30.32	\$17.03	\$47.35
Laborers (Class 03 - See notes)	5/6/2024		\$30.82	\$17.83	\$48.65
Laborers (Class 04 - See notes)	5/1/2023		\$31.82	\$16.78	\$48.60
Laborers (Class 04 - See notes)	5/6/2024		\$32.32	\$17.83	\$50.15
Laborers (Class 05 - See notes)	5/1/2023		\$29.62	\$16.77	\$46.39
Laborers (Class 05 - See notes)	5/1/2024		\$30.17	\$17.29	\$47.46
Laborers (Class 06 - See notes)	5/1/2022		\$28.87	\$16.28	\$45.15
Laborers (Class 06 - See notes)	5/1/2024		\$29.52	\$17.29	\$46.81
Marble Mason	5/1/2023		\$35.81	\$16.73	\$52.54
Marble Mason	5/1/2024		\$35.76	\$18.73	\$54.49
Marble Mason	5/1/2025		\$37.71	\$18.73	\$56.44
Marble Mason	5/1/2026		\$39.66	\$18.73	\$58.39
Millwright	5/1/2019		\$39.14	\$20.08	\$59.22
Millwright	6/1/2023		\$39.21	\$22.95	\$62.16
Millwright	6/1/2024		\$41.07	\$22.95	\$64.02
Millwright	6/1/2025		\$43.00	\$22.95	\$65.95
Millwright	6/1/2026		\$44.97	\$22.95	\$67.92
Operators (Building, Class 01 - See Notes)	5/1/2023		\$42.57	\$29.24	\$71.81
Operators (Building, Class 01 - See Notes)	5/1/2024		\$43.73	\$30.08	\$73.81
Operators (Building, Class 01 - See Notes)	5/1/2025		\$44.89	\$30.92	\$75.81
Operators (Building, Class 01 - See Notes)	5/1/2026		\$46.05	\$31.76	\$77.81
Operators (Building, Class 01A - See Notes)	5/1/2023		\$44.82	\$29.90	\$74.72
Operators (Building, Class 01A - See Notes)	5/1/2024		\$45.98	\$30.74	\$76.72
Operators (Building, Class 01A - See Notes)	5/1/2025		\$47.14	\$31.58	\$78.72
Operators (Building, Class 01A - See Notes)	5/1/2026		\$48.30	\$32.42	\$80.72
Operators (Building, Class 02 - See Notes)	5/1/2023		\$42.29	\$29.15	\$71.44
Operators (Building, Class 02 - See Notes)	5/1/2024		\$43.45	\$29.99	\$73.44
Operators (Building, Class 02 - See Notes)	5/1/2025		\$44.61	\$30.83	\$75.44
Operators (Building, Class 02 - See Notes)	5/1/2026		\$45.77	\$31.67	\$77.44
Operators (Building, Class 02A - See Notes)	5/1/2023		\$44.54	\$29.82	\$74.36
Operators (Building, Class 02A - See Notes)	5/1/2024		\$45.70	\$30.66	\$76.36
Operators (Building, Class 02A - See Notes)	5/1/2025		\$46.86	\$31.50	\$78.36
Operators (Building, Class 02A - See Notes)	5/1/2026		\$48.02	\$32.34	\$80.36
Operators (Building, Class 03 - See Notes)	5/1/2023		\$39.57	\$28.34	\$67.91
Operators (Building, Class 03 - See Notes)	5/1/2024		\$40.73	\$29.18	\$69.91

BUREAU OF LABOR LAW COMPLIANCE PREVAILING WAGES PROJECT RATES

Project: 25-02506 - Building	Effective Date	Expiration Date	Hourly Rate	Fringe Benefits	Total
Operators (Building, Class 03 - See Notes)	5/1/2025		\$41.88	\$30.03	\$71.91
Operators (Building, Class 03 - See Notes)	5/1/2026		\$43.04	\$30.87	\$73.91
Operators (Building, Class 04 - See Notes)	5/1/2023		\$38.42	\$28.02	\$66.44
Operators (Building, Class 04 - See Notes)	5/1/2024		\$39.59	\$28.85	\$68.44
Operators (Building, Class 04 - See Notes)	5/1/2025		\$40.74	\$29.70	\$70.44
Operators (Building, Class 04 - See Notes)	5/1/2026		\$41.90	\$30.54	\$72.44
Operators (Building, Class 05 - See Notes)	5/1/2023		\$37.97	\$27.89	\$65.86
Operators (Building, Class 05 - See Notes)	5/1/2024		\$39.13	\$28.73	\$67.86
Operators (Building, Class 05 - See Notes)	5/1/2025		\$40.30	\$29.56	\$69.86
Operators (Building, Class 05 - See Notes)	5/1/2026		\$41.45	\$30.41	\$71.86
Operators (Building, Class 06 - See Notes)	5/1/2023		\$37.10	\$27.62	\$64.72
Operators (Building, Class 06 - See Notes)	5/1/2024		\$38.26	\$28.46	\$66.72
Operators (Building, Class 06 - See Notes)	5/1/2025		\$39.42	\$29.30	\$68.72
Operators (Building, Class 06 - See Notes)	5/1/2026		\$40.58	\$30.14	\$70.72
Operators (Building, Class 07A- See Notes)	5/1/2023		\$51.63	\$33.34	\$84.97
Operators (Building, Class 07A- See Notes)	5/1/2024		\$53.10	\$34.27	\$87.37
Operators (Building, Class 07A- See Notes)	5/1/2025		\$54.56	\$35.21	\$89.77
Operators (Building, Class 07A- See Notes)	5/1/2026		\$56.03	\$36.14	\$92.17
Operators (Building, Class 07B- See Notes)	5/1/2023		\$51.28	\$33.24	\$84.52
Operators (Building, Class 07B- See Notes)	5/1/2024		\$52.75	\$34.17	\$86.92
Operators (Building, Class 07B- See Notes)	5/1/2025		\$54.22	\$35.10	\$89.32
Operators (Building, Class 07B- See Notes)	5/1/2026		\$55.69	\$36.03	\$91.72
Painters Class 1 (see notes)	5/1/2023		\$31.09	\$23.19	\$54.28
Painters Class 1 (see notes)	5/1/2024		\$31.81	\$23.77	\$55.58
Painters - Line Stripping	12/1/2024		\$44.12	\$27.91	\$72.03
Painters Class 2 (see notes)	5/1/2023		\$30.09	\$23.19	\$53.28
Painters Class 3 (see notes)	5/1/2017		\$36.25	\$18.17	\$54.42
Piledrivers	5/1/2021		\$43.73	\$37.99	\$81.72
Plasterers	5/1/2023		\$31.33	\$20.83	\$52.16
Plasterers	5/1/2024		\$32.93	\$21.08	\$54.01
plumber	5/1/2023		\$52.48	\$34.56	\$87.04
plumber	5/1/2024		\$54.28	\$35.26	\$89.54
Roofers (Composition)	5/1/2023		\$42.63	\$34.62	\$77.25
Roofers (Composition)	5/1/2024		\$44.13	\$34.77	\$78.90
Roofers (Shingle)	5/1/2023		\$32.85	\$22.10	\$54.95
Roofers (Shingle)	5/1/2024		\$34.35	\$22.20	\$56.55
Roofers (Slate & Tile)	5/1/2023		\$35.85	\$22.10	\$57.95
Roofers (Slate & Tile)	5/1/2024		\$37.35	\$22.20	\$59.55
Sheet Metal Workers	6/1/2022		\$40.22	\$41.01	\$81.23
Sheet Metal Workers	6/1/2023		\$41.41	\$42.32	\$83.73
Sheet Metal Workers	6/1/2024		\$43.09	\$43.14	\$86.23
Sign Makers and Hangars	7/15/2022		\$30.54	\$24.35	\$54.89
Sign Makers and Hangars	7/15/2023		\$31.76	\$24.63	\$56.39
Sign Makers and Hangars	7/15/2024		\$32.32	\$25.82	\$58.14

BUREAU OF LABOR LAW COMPLIANCE PREVAILING WAGES PROJECT RATES

Project: 25-02506 - Building	Effective Date	Expiration Date	Hourly Rate	Fringe Benefits	Total
Sprinklerfitters	4/1/2023		\$44.33	\$28.04	\$72.37
Sprinklerfitters	4/1/2024		\$46.45	\$28.62	\$75.07
Steamfitters	5/1/2023		\$57.07	\$41.99	\$99.06
Steamfitters	5/1/2024		\$59.65	\$43.09	\$102.74
Terrazzo Finisher	5/1/2023		\$35.79	\$19.25	\$55.04
Terrazzo Finisher	5/1/2024		\$35.66	\$20.76	\$56.42
Terrazzo Grinder	5/1/2023		\$36.54	\$19.25	\$55.79
Terrazzo Grinder	5/1/2024		\$36.42	\$20.76	\$57.18
Terrazzo Mechanics	5/1/2023		\$36.51	\$21.00	\$57.51
Terrazzo Mechanics	5/1/2024		\$36.44	\$22.51	\$58.95
Tile & Marble Finisher	5/1/2023		\$32.16	\$16.24	\$48.40
Tile & Marble Finisher	5/1/2024		\$33.36	\$16.99	\$50.35
Tile & Marble Finisher	5/1/2025		\$35.31	\$16.99	\$52.30
Tile & Marble Finisher	5/1/2026		\$37.26	\$16.99	\$54.25
Tile Setter	5/1/2023		\$35.81	\$16.73	\$52.54
Tile Setter	5/1/2024		\$35.76	\$18.73	\$54.49
Tile Setter	5/1/2025		\$37.71	\$18.73	\$56.44
Tile Setter	5/1/2026		\$39.66	\$18.73	\$58.39
Truckdriver class 1(see notes)	5/1/2021		\$37.72	\$0.00	\$37.72
Truckdriver class 2 (see notes)	5/1/2021		\$37.79	\$0.00	\$37.79
Window Film / Tint Installer	6/1/2019		\$24.52	\$12.08	\$36.60
Window Film / Tint Installer	6/1/2024		\$26.37	\$14.83	\$41.20

BUREAU OF LABOR LAW COMPLIANCE PREVAILING WAGES PROJECT RATES

Project: 25-02506 - Heavy/Highway	Effective Date	Expiration Date	Hourly Rate	Fringe Benefits	Total
Carpenter - Chief of Party (Surveying & Layout)	5/1/2021		\$41.42	\$15.49	\$56.91
Carpenter - Instrument Person (Surveying & Layout)	5/1/2021		\$36.02	\$15.49	\$51.51
Carpenter - Rodman I (Survey & Layout)	5/1/2021		\$28.82	\$12.39	\$41.21
Carpenter	5/1/2023		\$35.32	\$19.09	\$54.41
Carpenter	5/1/2024		\$36.12	\$19.79	\$55.91
Carpenter	5/1/2025		\$36.87	\$20.49	\$57.36
Carpenter	5/1/2026		\$37.63	\$21.18	\$58.81
Carpenter Welder	5/1/2023		\$36.07	\$19.09	\$55.16
Carpenter Welder	5/1/2024		\$36.87	\$19.79	\$56.66
Carpenter Welder	5/1/2025		\$37.62	\$20.49	\$58.11
Carpenter Welder	5/1/2026		\$38.38	\$21.18	\$59.56
Carpenters - Piledriver/Welder	1/1/2023		\$36.07	\$19.09	\$55.16
Carpenters - Piledriver/Welder	1/1/2024		\$36.87	\$19.79	\$56.66
Carpenters - Piledriver/Welder	1/1/2025		\$37.62	\$20.49	\$58.11
Carpenters - Piledriver/Welder	1/1/2026		\$38.38	\$21.18	\$59.56
Cement Finishers	1/1/2017		\$27.70	\$20.20	\$47.90
Dockbuilder, Pile Drivers	5/1/2023		\$50.48	\$37.99	\$88.47
Dockbuilder, Pile Drivers	5/1/2024		\$52.98	\$37.99	\$90.97
Dockbuilder, Pile Drivers	5/1/2025		\$55.23	\$37.99	\$93.22
Dockbuilder, Pile Drivers	5/1/2026		\$56.98	\$37.99	\$94.97
Dockbuilder/Pile Driver Diver	5/1/2023		\$58.41	\$41.74	\$100.15
Dockbuilder/Pile Driver Diver	5/1/2024		\$61.54	\$41.74	\$103.28
Dockbuilder/Pile Driver Diver	5/1/2025		\$64.35	\$41.74	\$106.09
Dockbuilder/Pile Driver Diver	5/1/2026		\$66.54	\$41.74	\$108.28
Dockbuilder/pile driver tender	5/1/2023		\$50.48	\$37.99	\$88.47
Dockbuilder/pile driver tender	5/1/2024		\$52.98	\$37.99	\$90.97
Dockbuilder/pile driver tender	5/1/2025		\$55.23	\$37.99	\$93.22
Dockbuilder/pile driver tender	5/1/2026		\$56.98	\$37.99	\$94.97
Electric Lineman	5/30/2022		\$50.28	\$28.47	\$78.75
Electric Lineman	5/29/2023		\$51.40	\$29.62	\$81.02
Electric Lineman	6/3/2024		\$52.80	\$30.61	\$83.41
Iron Workers (Bridge, Structural Steel, Ornamental, Precast, Reinforcing)	7/1/2021		\$34.01	\$31.13	\$65.14
Iron Workers (Bridge, Structural Steel, Ornamental, Precast, Reinforcing)	7/1/2023		\$36.26	\$31.38	\$67.64
Iron Workers (Bridge, Structural Steel, Ornamental, Precast, Reinforcing)	7/1/2024		\$37.26	\$32.63	\$69.89
Laborers (Class 01 - See notes)	5/1/2023		\$24.81	\$18.99	\$43.80
Laborers (Class 01 - See notes)	5/1/2024		\$25.61	\$19.49	\$45.10
Laborers (Class 02 - See notes)	5/1/2023		\$31.43	\$18.99	\$50.42
Laborers (Class 02 - See notes)	5/1/2024		\$32.23	\$19.49	\$51.72
Laborers (Class 03 - See notes)	5/1/2023		\$28.42	\$18.99	\$47.41
Laborers (Class 03 - See notes)	5/1/2024		\$29.22	\$19.49	\$48.71
Laborers (Class 04 - See notes)	5/1/2023		\$28.77	\$18.99	\$47.76
Laborers (Class 04 - See notes)	5/1/2024		\$29.57	\$19.49	\$49.06

BUREAU OF LABOR LAW COMPLIANCE PREVAILING WAGES PROJECT RATES

Project: 25-02506 - Heavy/Highway	Effective Date	Expiration Date	Hourly Rate	Fringe Benefits	Total
Laborers (Class 05 - See notes)	5/1/2023		\$29.44	\$18.99	\$48.43
Laborers (Class 05 - See notes)	5/1/2024		\$30.24	\$19.49	\$49.73
Laborers (Class 06 - See notes)	5/1/2023		\$28.86	\$18.99	\$47.85
Laborers (Class 06 - See notes)	5/1/2024		\$29.66	\$19.49	\$49.15
Laborers (Class 07 - See notes)	5/1/2023		\$29.15	\$18.99	\$48.14
Laborers (Class 07 - See notes)	5/1/2024		\$29.95	\$19.49	\$49.44
Laborers (Class 08 - See notes)	5/1/2023		\$29.63	\$18.99	\$48.62
Laborers (Class 08 - See notes)	5/1/2024		\$30.43	\$19.49	\$49.92
Millwright	6/1/2023		\$41.51	\$23.33	\$64.84
Millwright	6/1/2024		\$43.46	\$23.33	\$66.79
Millwright	6/1/2025		\$45.46	\$23.33	\$68.79
Millwright	6/1/2026		\$47.52	\$23.33	\$70.85
Operators (Heavy, Class 01 - See Notes)	5/1/2023		\$41.14	\$28.82	\$69.96
Operators (Heavy, Class 01 - See Notes)	5/1/2024		\$42.30	\$29.66	\$71.96
Operators (Heavy, Class 01 - See Notes)	5/1/2025		\$43.46	\$30.50	\$73.96
Operators (Heavy, Class 01 - See Notes)	5/1/2026		\$44.61	\$31.35	\$75.96
Operators (Heavy, Class 01A - See Notes)	5/1/2023		\$43.39	\$29.48	\$72.87
Operators (Heavy, Class 01A - See Notes)	5/1/2024		\$44.55	\$30.32	\$74.87
Operators (Heavy, Class 01A - See Notes)	5/1/2025		\$45.71	\$31.16	\$76.87
Operators (Heavy, Class 01A - See Notes)	5/1/2026		\$46.86	\$32.01	\$78.87
Operators (Heavy, Class 02 - See Notes)	5/1/2023		\$40.86	\$28.73	\$69.59
Operators (Heavy, Class 02 - See Notes)	5/1/2024		\$42.02	\$29.57	\$71.59
Operators (Heavy, Class 02 - See Notes)	5/1/2025		\$43.18	\$30.41	\$73.59
Operators (Heavy, Class 02 - See Notes)	5/1/2026		\$44.34	\$31.25	\$75.59
Operators (Heavy, Class 02A - See Notes)	5/1/2023		\$43.11	\$29.40	\$72.51
Operators (Heavy, Class 02A - See Notes)	5/1/2024		\$44.27	\$30.24	\$74.51
Operators (Heavy, Class 02A - See Notes)	5/1/2025		\$45.43	\$31.08	\$76.51
Operators (Heavy, Class 02A - See Notes)	5/1/2026		\$46.59	\$31.92	\$78.51
Operators (Heavy, Class 03 - See Notes)	5/1/2023		\$37.95	\$27.86	\$65.81
Operators (Heavy, Class 03 - See Notes)	5/1/2024		\$39.11	\$28.70	\$67.81
Operators (Heavy, Class 03 - See Notes)	5/1/2025		\$40.26	\$29.55	\$69.81
Operators (Heavy, Class 03 - See Notes)	5/1/2026		\$41.43	\$30.38	\$71.81
Operators (Heavy, Class 04 - See Notes)	5/1/2023		\$36.80	\$27.54	\$64.34
Operators (Heavy, Class 04 - See Notes)	5/1/2024		\$37.96	\$28.38	\$66.34
Operators (Heavy, Class 04 - See Notes)	5/1/2025		\$39.12	\$29.22	\$68.34
Operators (Heavy, Class 04 - See Notes)	5/1/2026		\$40.28	\$30.06	\$70.34
Operators (Heavy, Class 05 - See Notes)	5/1/2023		\$36.35	\$27.41	\$63.76
Operators (Heavy, Class 05 - See Notes)	5/1/2024		\$37.51	\$28.25	\$65.76
Operators (Heavy, Class 05 - See Notes)	5/1/2025		\$38.67	\$29.09	\$67.76
Operators (Heavy, Class 05 - See Notes)	5/1/2026		\$39.83	\$29.93	\$69.76
Operators (Heavy, Class 06 - See Notes)	5/1/2023		\$35.48	\$27.14	\$62.62
Operators (Heavy, Class 06 - See Notes)	5/1/2024		\$36.64	\$27.98	\$64.62
Operators (Heavy, Class 06 - See Notes)	5/1/2025		\$37.80	\$28.82	\$66.62
Operators (Heavy, Class 06 - See Notes)	5/1/2026		\$38.96	\$29.66	\$68.62

BUREAU OF LABOR LAW COMPLIANCE PREVAILING WAGES PROJECT RATES

Project: 25-02506 - Heavy/Highway	Effective Date	Expiration Date	Hourly Rate	Fringe Benefits	Total
Operators (Heavy, Class 07A - See Notes)	5/1/2023		\$49.93	\$32.83	\$82.76
Operators (Heavy, Class 07A - See Notes)	5/1/2024		\$51.39	\$33.77	\$85.16
Operators (Heavy, Class 07A - See Notes)	5/1/2025		\$52.85	\$34.71	\$87.56
Operators (Heavy, Class 07A - See Notes)	5/1/2026		\$54.32	\$35.64	\$89.96
Operators (Heavy, Class 07B - See Notes)	5/1/2023		\$49.58	\$32.73	\$82.31
Operators (Heavy, Class 07B - See Notes)	5/1/2024		\$51.04	\$33.67	\$84.71
Operators (Heavy, Class 07B - See Notes)	5/1/2025		\$52.51	\$34.60	\$87.11
Operators (Heavy, Class 07B - See Notes)	5/1/2026		\$53.97	\$35.54	\$89.51
Operators (Highway, Class 01 - See Notes)	5/1/2023		\$40.25	\$28.55	\$68.80
Operators (Highway, Class 01 - See Notes)	5/1/2024		\$41.41	\$29.39	\$70.80
Operators (Highway, Class 01 - See Notes)	5/1/2025		\$42.56	\$30.24	\$72.80
Operators (Highway, Class 01 - See Notes)	5/1/2026		\$43.72	\$31.08	\$74.80
Operators (Highway, Class 01a - See Notes)	5/1/2023		\$42.50	\$29.23	\$71.73
Operators (Highway, Class 01a - See Notes)	5/1/2024		\$43.66	\$30.07	\$73.73
Operators (Highway, Class 01a - See Notes)	5/1/2025		\$44.81	\$30.92	\$75.73
Operators (Highway, Class 01a - See Notes)	5/1/2026		\$45.97	\$31.76	\$77.73
Operators (Highway, Class 02 - See Notes)	5/1/2023		\$39.08	\$28.20	\$67.28
Operators (Highway, Class 02 - See Notes)	5/1/2024		\$40.24	\$29.04	\$69.28
Operators (Highway, Class 02 - See Notes)	5/1/2025		\$41.39	\$29.89	\$71.28
Operators (Highway, Class 02 - See Notes)	5/1/2026		\$42.55	\$30.73	\$73.28
Operators (Highway, Class 03 - See Notes)	5/1/2023		\$38.39	\$27.99	\$66.38
Operators (Highway, Class 03 - See Notes)	5/1/2024		\$39.55	\$28.83	\$68.38
Operators (Highway, Class 03 - See Notes)	5/1/2025		\$40.70	\$29.68	\$70.38
Operators (Highway, Class 03 - See Notes)	5/1/2026		\$41.87	\$30.51	\$72.38
Operators (Highway, Class 04 - See Notes)	5/1/2023		\$37.94	\$27.86	\$65.80
Operators (Highway, Class 04 - See Notes)	5/1/2024		\$39.10	\$28.70	\$67.80
Operators (Highway, Class 04 - See Notes)	5/1/2025		\$40.26	\$29.54	\$69.80
Operators (Highway, Class 04 - See Notes)	5/1/2026		\$41.41	\$30.39	\$71.80
Operators (Highway, Class 05 - See Notes)	5/1/2023		\$37.42	\$27.72	\$65.14
Operators (Highway, Class 05 - See Notes)	5/1/2024		\$38.58	\$28.56	\$67.14
Operators (Highway, Class 05 - See Notes)	5/1/2025		\$39.73	\$29.41	\$69.14
Operators (Highway, Class 05 - See Notes)	5/1/2026		\$40.89	\$30.25	\$71.14
Operators (Highway, Class 06 - See Notes)	5/1/2023		\$40.48	\$28.62	\$69.10
Operators (Highway, Class 06 - See Notes)	5/1/2024		\$41.64	\$29.46	\$71.10
Operators (Highway, Class 06 - See Notes)	5/1/2025		\$42.80	\$30.30	\$73.10
Operators (Highway, Class 06 - See Notes)	5/1/2026		\$43.95	\$31.15	\$75.10
Operators (Highway, Class 06/A - See Notes)	5/1/2023		\$42.73	\$29.28	\$72.01
Operators (Highway, Class 06/A - See Notes)	5/1/2024		\$43.89	\$30.12	\$74.01
Operators (Highway, Class 06/A - See Notes)	5/1/2025		\$45.05	\$30.96	\$76.01
Operators (Highway, Class 06/A - See Notes)	5/1/2026		\$46.21	\$31.80	\$78.01
Operators (Highway, Class 07/A - See Notes)	5/1/2023		\$48.86	\$32.51	\$81.37
Operators (Highway, Class 07/A - See Notes)	5/1/2024		\$50.32	\$33.45	\$83.77
Operators (Highway, Class 07/A - See Notes)	5/1/2025		\$51.79	\$34.38	\$86.17
Operators (Highway, Class 07/A - See Notes)	5/1/2026		\$53.25	\$35.32	\$88.57

BUREAU OF LABOR LAW COMPLIANCE PREVAILING WAGES PROJECT RATES

Project: 25-02506 - Heavy/Highway	Effective Date	Expiration Date	Hourly Rate	Fringe Benefits	Total
Operators (Highway, Class 07/B - See Notes)	5/1/2023		\$47.44	\$32.10	\$79.54
Operators (Highway, Class 07/B - See Notes)	5/1/2024		\$48.91	\$33.03	\$81.94
Operators (Highway, Class 07/B - See Notes)	5/1/2025		\$50.37	\$33.97	\$84.34
Operators (Highway, Class 07/B - See Notes)	5/1/2026		\$51.84	\$34.90	\$86.74
Painters - Line Stripping	12/1/2023		\$42.10	\$27.43	\$69.53
Painters - Line Stripping	12/1/2024		\$44.12	\$27.91	\$72.03
Painters Class 2 (see notes)	5/1/2023		\$33.99	\$23.20	\$57.19
Painters Class 2 (see notes)	5/1/2024		\$34.71	\$23.78	\$58.49
Painters Class 3 (see notes)	5/1/2023		\$40.09	\$23.20	\$63.29
Painters Class 3 (see notes)	5/1/2024		\$40.81	\$23.78	\$64.59
Piledrivers	5/1/2023		\$35.32	\$19.09	\$54.41
Piledrivers	5/1/2024		\$36.12	\$19.79	\$55.91
Piledrivers	5/1/2025		\$36.87	\$20.49	\$57.36
Piledrivers	5/1/2026		\$37.63	\$21.18	\$58.81
Steamfitters (Heavy and Highway - Gas Distribution)	5/1/2022		\$48.43	\$40.28	\$88.71
Steamfitters (Heavy and Highway - Gas Distribution)	5/1/2023		\$50.53	\$41.68	\$92.21
Steamfitters (Heavy and Highway - Gas Distribution)	5/1/2024		\$52.74	\$42.93	\$95.67
Truckdriver class 1(see notes)	5/1/2021		\$37.72	\$0.00	\$37.72
Truckdriver class 2 (see notes)	5/1/2021		\$37.79	\$0.00	\$37.79


**BUREAU OF LABOR LAW COMPLIANCE
PREVAILING WAGES PROJECT RATES**

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WEEKLY PAYROLL CERTIFICATION FOR PUBLIC WORKS PROJECTS

☐ Contractor or
 ☐ Subcontractor (Please check one)

ALL INFORMATION MUST BE COMPLETED

CONTRACTOR ADDRESS			SUBCONTRACTOR ADDRESS			 DEPARTMENT OF LABOR & INDUSTRY <small>COMMONWEALTH OF PENNSYLVANIA</small> BUREAU OF LABOR LAW COMPLIANCE PREVAILING WAGE DIVISION 7TH & FORSTER STREETS HARRISBURG, PA 17120 1-800-932-0665		
PAYROLL NUMBER	WEEK ENDING DATE	PROJECT AND LOCATION PROJECT SERIAL #						

EMPLOYEE NAME	APPR. RATE (%)	WORK CLASSIFICATION	DAY AND DATE							S- TIME 0- TIME	BASE HOURLY RATE	TOTAL FRINGE BENEFITS (C=Cash) (FB=Contributions)*	TOTAL DEDUCTIONS	GROSS PAY FOR PREVAILING RATE JOB(S)	CHECK #
			HOURS WORKED EACH DAY												
											C:				
											FB:				
											C:				
											FB:				
											C:				
											FB:				
											C:				
											FB:				
											C:				
											FB:				

*SEE REVERSE SIDE

PAGE NUMBER _____ OF _____

THE NOTARIZATION MUST BE COMPLETED ON FIRST AND LAST SUBMISSIONS ONLY. ALL OTHER INFORMATION MUST BE COMPLETED WEEKLY.

*FRINGE BENEFITS EXPLANATION (FB): Bona fide benefits contribution, except those required by Federal or State Law (unemployment tax, workers' compensation, income taxes, etc.)

Please specify the type of benefits provided and contributions per hour:

- 1) Medical or hospital care _____
- 2) Pension or retirement _____
- 3) Life insurance _____
- 4) Disability _____
- 5) Vacation, holiday _____
- 6) Other (please specify) _____

CERTIFIED STATEMENT OF COMPLIANCE

1. The undersigned, having executed a contract with _____
(AWARDING AGENCY, CONTRACTOR OR SUBCONTRACTOR)
_____ for the construction of the above-identified project, acknowledges that:
 - (a) The prevailing wage requirements and the predetermined rates are included in the aforesaid contract.
 - (b) Correction of any infractions of the aforesaid conditions is the contractor's or subcontractor's responsibility.
 - (c) It is the contractor's responsibility to include the Prevailing Wage requirements and the predetermined rates in any subcontract or lower tier subcontract for this project.
2. The undersigned certifies that:
 - (a) Neither he nor his firm, nor any firm, corporation or partnership in which he or his firm has an interest is debarred by the Secretary of Labor and Industry pursuant to Section 11(e) of the PA Prevailing Wage Act, Act of August 15, 1961, P.L. 987 as amended, 43 P.S. § 165-11(e).
 - (b) No part of this contract has been or will be subcontracted to any subcontractor if such subcontractor or any firm, corporation or partnership in which such subcontractor has an interest is debarred pursuant to the aforementioned statute.
3. The undersigned certifies that:
 - (a) the legal name and the business address of the contractor or subcontractor are: _____

 - (b) The undersigned is: ☐ a single proprietorship ☐ a corporation organized in the state of _____
☐ a partnership ☐ other organization (describe) _____
 - (c) The name, title and address of the owner, partners or officers of the contractor/subcontractor are:

NAME	TITLE	ADDRESS

The willful falsification of any of the above statements may subject the contractor to civil or criminal prosecution, provided in the PA Prevailing Wage Act of August 15, 1961, P.L. 987, as amended, August 9, 1963, 43 P.S. § 165.1 through 165.17.

(DATE)

SEAL

(SIGNATURE)

(TITLE)

Taken, sworn and subscribed before me this _____ Day
of _____ A.D., _____

SECTION 008200 - SAFETY AND HEALTH MANAGEMENT PLAN PROJECT REQUIREMENTS

The Safety and Health Management Plan requirements are the minimum parameters that contractors must comply with. Contractors are required to prepare their own Safety Plan and comply with all applicable regulations.

As used in this Safety and Health Management Plan (herein referred to as "Plan"), "Contractor" shall mean the controlling Contractor (who has a contractual agreement with the Owner), who shall comply with these minimum requirements. The Contractor shall also agree to require each of their Subcontractors and Sub-subcontractors to comply with the minimum requirements of this Plan.

It is the responsibility of the Contractor to maintain total control of Safety to ensure that employees and the general public will be provided with a hazard free environment during Construction and renovation activities. This Plan does not relieve the Contractor of its responsibilities regarding the safety of its employees and the preservation of property. The Contractor agrees that it and all its Subcontractors or Sub-subcontractors shall be fully responsible for project Safety and Health Management. The Owner, the Construction Manager and the Architect shall not be responsible for any Safety precautions and programs in connection with the work.

The Contractor and Subcontractors of all tiers are solely responsible for safety on the job site and with respect to the work and indemnify, hold harmless and waive all claims against the Owner, the Construction Manager, and/or the Architect based on, arising out of or in any way involving any actual or alleged non-compliance with the Safety and Health Management Plan.

The Federal Occupational Safety and Health Act as well as other federal, state, and local regulations promulgated in the Interest of Safety are required by law and this Plan.

The Safety Requirements of this Plan is a supplementary document to all Government rules and regulations. It does not negate, abrogate, alter or otherwise change any provisions of those rules and/or regulations, and is intended to supplement and enforce the individual program of each Contractor and the overall safety effort. It is understood that the ultimate responsibility for providing a safe workplace rests with each individual Contractor.

I hereby acknowledge that I have received, read and evaluated the Project Safety and Health Management Plan and I hereby certify that I will ensure that at a minimum its requirements and conditions are fulfilled.

Company Name

Contractor – Project Manager

Contractor – Field Supervisor

Date

Date

Project Safety and Health Management Plan

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1.0 Introduction

The Safety and Health Management Plan requirements are the minimum parameters that contractors must comply with. Contractors are required to prepare their own Safety Plan and comply with all applicable regulations. These requirements have not been prepared by the Architect.

This Safety and Health Management Plan (herein referred to as "Plan") is intended to establish uniform policies and procedures for all Contractors, with the goal of reducing the frequency and severity of accidents. This Plan applies to all Work performed on the Project.

1. Contractor shall implement, maintain and adhere to a written Contractor Safety Program as required by the Bid Documents. Contractor shall submit the Contractor Safety Program to the Owner or its representatives prior to commencement of the Work. In the event that the Contractor Safety Program does not comply with the requirements of this Agreement or of the Plan incorporated into this Agreement, the Contractor Safety Program shall be redrafted to comply with this Agreement and with the Plan, whichever provides the highest level of Safety. (The Contractor may, however, incorporate this Plan into their Safety Program for this project by reference.) One or more copies of the written Contractor Safety Program must be maintained on-site for employee review. Before the Contractor or any Subcontractor commences Work, the Contractor or Subcontractor, as applicable, shall make available to employees a copy of the Contractor Safety Program and the Contractor or Subcontractor, as applicable, and shall certify that prior to any employee, or any employee of any Subcontractor, beginning Work on the Project, the employees have been oriented with regards to the written Contractor Safety Program and have been directed by the Contractor or Subcontractor or its representatives to comply with Program requirements.
2. The Contractor, all Subcontractors and Sub-subcontractors shall assume all costs related, but not limited to, Personal Protective Equipment, Drug and Alcohol Free Workplace Substance Abuse Program, all training requirements, etc.
3. Compliance with the Plan is a requirement of the Contract. Failure to comply will be considered a breach of Contract, subject to the remedies provided in the Contract including, but not limited to, withholding of progress payments or termination for cause.
4. The Contractor, all Subcontractors and Sub-subcontractors shall immediately correct unsafe conditions.
5. If the Contractor, any Subcontractors or Sub-subcontractor refuses to correct an unsafe condition, the Owner and/or its representatives is authorized to stop that portion of the Work until the Work can continue in accordance with the requirements of this Plan. The cost to bring the Work activity into compliance shall be incurred by the Contractor, Subcontractors and/or Sub-subcontractors and at no time shall the costs be charged to the Owner.
6. Each Contractor, all Subcontractors and Sub-subcontractors shall be responsible for payment of all fines, damages or other costs resulting from failure to comply with the Plan requirements. The Contractor shall reimburse the Owner for any fines, damages or costs incurred (including the costs of attorneys' fees for defense and appeals) arising out of the Contractor's operations.

2.0 General Requirements

Each Contractor, Subcontractor and Sub-subcontractor shall: (a) be solely responsible for the health, safety and security of employees and others under its control and/or supervision; and (b) comply with the terms and conditions of the Project Safety and Health Management Plan (herein referred to as "Plan") attached hereto and incorporated herein by reference as if fully set forth herein. The Project Manager and Field Supervisor of each Contractor and Subcontractor must execute a copy of the Plan certifying that each will ensure that the requirements of the Plan will be fulfilled. Notwithstanding anything to the contrary that is contained herein or in the Project Safety and Health Management Plan, the Contractor and Subcontractors of all tiers are solely responsible for safety on the job site and with respect to the work and indemnify, hold harmless and waive all claims against the Owner, the Construction Manager, and/or the Architect based on, arising out of or in any way involving any actual or alleged non-compliance with the Safety and Health Management Plan.

1. Contractor shall conduct its business in a professional manner to prevent the occurrence of incidents that lead to injuries or illnesses and/or equipment and property damage. Safety, health and security requirements for the Work under this Contract shall be administered by the Contractor and all of its Subcontractors and Sub-subcontractors in accordance with the following:
 - a. The importance of Safety with respect to all Work shall be recognized and accident prevention shall

be an integral part of all planning and operations by the Contractor and its Subcontractors;

- b. Contractor, Subcontractors and Sub-subcontractors shall conduct Work in accordance with: (i) the Occupational Safety and Health Act of 1970 (OSHA) and all additions, amendments and revisions thereto; and (ii) the Plan;
- c. Contractor, Subcontractors and Sub-subcontractors shall follow all applicable federal, state and local laws/regulations pertaining to pollution control, water supply, fire protection, sanitation facilities, waste disposal and other related items;
- d. Contractor, Subcontractors and Sub-subcontractors shall cooperate fully with the Owner and its representatives and all other Contractors and Subcontractors in providing and managing safety, health and security programs with respect to the Work;
- e. Housekeeping shall be observed at all times and waste, debris and garbage shall be removed daily and placed in appropriate waste containers. All materials, tools and equipment shall be stored in a safe and orderly fashion.
- f. Should Owner or its representatives notify Contractor of any safety non-compliance resulting in an unsafe act or improper equipment operation that puts the life and/or safety of Job Site personnel or other persons at risk, the Owner or its representatives shall have the right to immediately stop such Work or acts. Contractor shall correct the hazard or condition within the time specified prior to resuming Work in the area. Nothing in this Contract shall be construed as creating any duty on the part of the Owner or the Construction Manager to inspect the Work for safety.

2. Safety Program

- a. Any Contractor shall provide a site Safety Representative knowledgeable in the areas of construction safety, health and fire prevention. The Safety Representatives shall have completed the OSHA 500 Construction and Outreach Training Program, or have equivalent experience or training, as a minimum. This individual shall have the authority to act as liaison with the Owner and/or its representatives, other Contractors and Subcontractors on all matters related to safety. This individual shall have full authority to ensure safe Work practices and to correct unsafe or hazardous conditions. All Subcontractors shall designate a member of supervision, who may have other duties, as its Safety Representative whose duty shall be the prevention of accidents. The Safety Representative shall have a current (within the last Two (2) Years) OSHA 10 Hour Construction Outreach Training Certificate.
- b. Contractor shall inform the Owner and/or its representatives of any federal or state inspections. Contractor shall provide Owner and/or its representatives with copies of all federal and state inspection reports, citations, penalties, abatement dates, and the like, with respect to the Work or any aspect of the Work under this Contract.
- c. The Contractor shall cooperate with the Owner and/or its representatives, who may periodically observe any aspect of the Work and/or the Project Work Site without prior notice.
- d. All lay down and storage areas shall be coordinated with the designated Project official prior to set-up of these areas. Contractor shall be responsible for the security of said area(s) and for all material, equipment and tools.
- d. Any media contact or responses to media inquiries shall be directed to the Project official designated by the Owner. Contractor and Subcontractor shall not discuss accidents, incidents or other related issues with the media.
- f. All employee vehicles shall be restricted to designated parking areas. All parking areas shall be coordinated with the designated Project official.

3. Employee and Visitor Dress Requirements

- a. All projects shall enforce a One Hundred Percent (100%) hard hat requirement for all construction areas. All supervisors, employees and visitors shall be required to wear hard hats while on the Project Site.
- b. Contractor shall ensure that all workers wear durable work shoes and under no condition shall

employees wear shorts, tank tops, sleeveless shirts, clogs or footwear with large openings, street shoes, tennis shoes or sandals.

4. No Smoking Policy

- a. There will be NO smoking or vaping permitted on the project site.
- b. All Contractors shall enforce the required no smoking/vaping policy for the entire project site at all times.

5. Failure to Comply with Safety Regulations

- a. Failure to comply with the Contract Safety Requirements shall be deemed to constitute non-compliance with the Contract and may result in remedial action as provided by the Contract.
- b. If Contractor refuses to correct unsafe or unhealthy conditions or acts, the Owner and/or its representatives may take one or more of the following actions:
 - i. Instruct the Contractor, Subcontractor or Sub-subcontractor, who shall comply with said instructions, to cease the Work, or a portion thereof, until the condition is brought into compliance with Contract and Safety Requirements;
 - iii. Stop payment for the Work being performed; and/or
 - iv. Correct the situation using another employee or Contractor and charge Contractor who shall pay for the expenses and costs incurred.
 - v. All costs associated with ensuring a safe and healthful Work environment, shall be borne by any non-compliant Contractor or Subcontractor, and costs will be charged to and/or assessed against the non-conforming Contractor or Subcontractor. Contractor, Subcontractor, and Sub-subcontractor shall be responsible for the payment of all fines and/or claims for damages levied against the Owner and/or its representatives for deficiencies relating to the conduct of the Contractor's Work.

3.0 Safety Policy Statement

Objective

The objective of this Plan is to reduce the frequency and severity of accidents on this Project. There are Three (3) sound reasons for this objective:

1. No endeavor is worthy if it should cause human suffering through disabling injury or loss of life.
2. A good safety record reflects the quality of management.
3. Poor accident experience increases cost, and results in a loss of profit.

Policy Statement

The safety of persons and property is of paramount importance to the Owner. This Plan will establish employee safety and health as an integral part of the overall success of this Project.

By Contract, the Contractor, all Subcontractors and Sub-subcontractors on the Project Site shall comply with the requirements of the Federal Occupational Safety and Health Act of 1970 (OSHA) and all additions and revisions thereto, as well as any other applicable federal, state and local requirements and this Plan.

The on-site supervisory personnel are responsible for the actions of those they supervise, for maintaining safe and healthy working conditions in their areas of responsibility, and for strictly enforcing all safety and health policies and regulations. All employees shall comply with these Rules and Regulations.

4.0 Responsibilities

The Contractor, all Subcontractors and Sub-subcontractors shall prevent accidents and are responsible for thorough safety and risk control training and instruction for their employees.

The prevention of accidents and protection of property shall receive management's top priority, support and participation.

General Overview

- Provide a safe environment where employees can perform high quality Work.
- Use Safety Planning as a tool to reduce injury to persons and damage to property.
- Provide inspections to locate and abate unsafe conditions and practices before they result in bodily injury or property loss.
- Protect the public and property adjacent to the Construction Site.
- Educate and Train employees through:
 - ◆ New Hire Safety Orientation
 - ◆ Weekly Safety meetings
 - ◆ Task-Specific Safety Training, (i.e., hazard communications (HAZCOM), fall protection, construction safety practices, trenching safety, confined space entry, etc.)
- Mandatory Personal Protective Equipment (PPE) Programs.
- Injury reporting and record keeping to maintain an up-to-date accident experience and trends analysis.
- Using accident investigation information to abate deficiencies and eliminate any additional losses.
- Return-To-Work (Modified Duty) Programs.
- Site-Wide One Hundred Per Cent (100%) Six (6) Foot Fall Protection Policy. **THERE IS A ZERO TOLERANCE POLICY ON FALL PROTECTION. ONE VIOLATION OF THE FALL PROTECTION POLICY WILL RESULT IN THE CONTRACTOR REMOVING THE VIOLATING EMPLOYEE FROM THE SITE FOR THE DURATION OF THE PROJECT. THE EMPLOYEE'S SUPERVISOR MAY BE REMOVED FROM THE SITE FOR FAILURE TO ENFORCE THE FALL PROTECTION POLICY.**
- Drug and Alcohol-Free Work Place Program.

Contractor's Project Manager

The Contractor's Project Manager shall be responsible for:

- Promoting Total Job Safety with all employees and visitors;
- Accepting full and complete responsibility for the implementation and execution of the Plan on-site;
- Monitoring Contractor adherence to Plan Requirements; and
- Assisting in accident investigations with the Program's Safety Representative;

Contractor's Project Foreman

The Contractor's Project Foreman shall be responsible for:

- Setting a good safety example for workers;
- Using Pre-Task Planning, instructing workers on Safe Work Practices and Methods to prevent injury, damage to property and loss of productive time;
- Supplying and enforcing the use of Personal Protective Equipment (PPE);
- Familiarizing workers with the Safety Requirements applicable to their Work;
- Holding weekly Tool-Box Safety Meetings with their Work crews;
- Conducting daily Safety Inspections of their Work areas;

- Assisting in accident investigations with the Program's Safety Representative; and
- Assuring that proper first-aid treatment is administered to injured employees.

Contractors, Subcontractors and Sub-subcontractors

All Contractors, Subcontractors and Sub-subcontractors shall have overall responsibility for accident prevention and implementation of this Plan for their personnel.

Each Contractor, Subcontractor and Sub-subcontractor shall designate a member of supervision, who may have other duties, as their Safety Representative in accordance with the Contract Documents. The Safety Representative shall be knowledgeable and responsible for all applicable Safety Standards and site policies. This individual shall have, at a minimum, completed the OSHA 10 Hour Construction Outreach training course within the last Two (2) Years.

The Safety Representative is responsible for performing Construction Safety Inspections and identifying and resolving any safety related concerns pertaining to their Work.

All employees shall be orientated to their company's Contractor Safety Program as well as to the Plan. Documentation of this training (which includes but is not limited to: Attendance roster, date of training and course content) shall be maintained on file.

Each Contractor shall be responsible for providing their Subcontractor's and Sub-subcontractor's Safety Representative with an emergency communication plan for use in emergency response and other safety related communications.

Although many existing hazards may be corrected through informal communications, all corrective actions must be documented.

Worker's Responsibilities

The Workers shall be responsible for:

- Working according to good safety practices as posted, instructed and discussed;
- Complying with the Plan and the Contractor's Safety Program;
- Using all required and provided safety devices;
- Reporting any unsafe situation or act to their supervisor and/or designated Safety Representative immediately;
- Maintaining a clean and safe Work area;
- Performing assigned duties in an alert manner, free of any impairment that may affect safety;
- Following the Site's Safety Program; and
- Reporting injuries immediately to their supervisor.

5.0 Safety Related Meetings and Training

Safety Meetings and Training shall be conducted by the Contractor, all Subcontractors and Sub-subcontractors. The following meetings and training shall be conducted, documented and maintained on file:

- Indoctrination (Orientation) Safety Training
 - ◆ All new employees and visitors to the Construction Project shall be properly trained and oriented with regards to the Safety Plan, hazard recognition, Site-Specific Safety Requirements, emergency procedures, first-aid/medical procedures, assigned Panel of Physicians, etc.
- "Tool Box" Safety Meetings
 - ◆ The Contractor, all Subcontractors and Sub-subcontractors shall conduct weekly Safety Training Meetings with all employees working on the Construction Project. This training shall be conducted by a supervisor or foremen.
 - ◆ The meetings shall cover any Hazardous Work Conditions, unsafe Work practices that have been identified, safe working practices, review of accidents and near-misses that have occurred on the Construction Project and safety rules and regulations.

- ◆ This training shall be documented to include names of employees attending the training and an outline of all topics discussed.
- Weekly Progress Management Meetings
 - ◆ Safety shall have a portion of the agenda in all Progress Meetings for discussion of the previous week's safety issues and to discuss the current week's activities. Minutes from the Progress Meetings shall reflect safety items discussed and any proposed resolution to issues.
- Periodic Safety Management Meetings
 - ◆ Upon request by the Owner or its representatives, a Safety Management Meeting will be held periodically on the Construction Project to review on-going safety issues. The Contractor's, all Subcontractor's and Sub-subcontractor's Safety Representatives, Project Managers and Project Safety Representatives shall attend these meetings.
 - ◆ If the Contractor, any Subcontractor or Sub-subcontractor has a lost-time injury, a representative of the respective company shall explain at the next Safety Meeting:
 - Why the accident occurred?
 - What corrective measures have been taken to prevent similar injuries from occurring?
 - What the claim status of the injured employee is?
 - What, if any, alternative (modified duty) work has been provided?
- Pre-Shift Hazard Recognition Training
 - ◆ The Contractor, all Subcontractors and Sub-subcontractors shall hold Pre-Shift Hazard Recognition Training with each work crew working under the following conditions:
 - One Hundred Percent (100%) Fall Protection
 - Scaffold Erection and Dismantling
 - Crane and all Material Hoisting Operations
 - Excavation and Trenching Operations
 - Non-Routine Work Operations, i.e. Emergency Procedures, Industrial Hygiene, etc.
 - Confined Space Operations

6.0 Project Disciplinary / Corrective Procedures

General Statement. The Project Disciplinary/Corrective Procedures are intended to encourage compliance with the requirements of OSHA, other applicable federal, state and local requirement, and this Plan. Workers performing Work in an unsafe manner shall be subject to counseling, training, discipline, transfer or termination.

Responsibilities of Contractor and Subcontractors. Each Contractor and Subcontractor shall respond to each work injury and known unsafe act as follows:

1. **Investigation.** The Contractor or Subcontractor, as applicable, shall conduct a proper investigation to determine: (a) the nature of the unsafe act; (b) the reasons the unsafe act occurred; and (c) the identity of the individual(s) who engaged in or was responsible for the unsafe act. With respect to any individual employee or representative who was identified as having engaged in or being responsible for an unsafe act, the following information shall be among the information reviewed and considered:
 - a. The individual's past training and experience as is relevant to the unsafe act committed;
 - b. The individual's prior disciplinary record;
 - c. The individual's prior record with respect to: (i) engaging in or allowing unsafe acts, and (ii) following instructions and directions; and
 - d. The individual's degree of culpability.

2. **Prevention.** The Contractor or Subcontractor, as applicable, shall take action that is reasonably calculated to insure that:
 - a. The unsafe act will not be repeated; and
 - b. That the individual(s) responsible for engaging in or allowing the unsafe act to occur will not engage in or allow unsafe acts to occur in the future.
3. **Disciplinary/Corrective Options.** The options available to Contractors and Subcontractors when taking action that is reasonably calculated to ensure that the unsafe acts will not be repeated and that responsible individuals will not engage in or allow unsafe acts to occur include:
 - a. Additional training for workers in general and/or to the responsible individual in particular;
 - b. Job performance counseling of the responsible individual(s);
 - c. Verbal Warning (which shall be documented);
 - d. Written Warning;
 - e. Suspension from Work without pay;
 - f. Transfer off the Project; and
 - g. Discharge from employment.
4. **Guiding Principles.** Contractors and Subcontractors shall decide which option(s) to exercise in accordance with the following guiding principles:
 - a. Nothing in this Plan shall be construed to require any Contractor or Subcontractor to violate the terms or conditions of any applicable law, collective bargaining agreement or employment contract;
 - b. If any individual engages in a repeated unsafe act(s), a repeated violation(s) of the Contract, a repeated violation(s) of OSHA requirements, or a repeated violation(s) of this Plan, the actions taken by the Contractor or Subcontractor, as applicable, shall be progressive in severity and consequence;
 - c. Nothing in this Plan requires progressive discipline as a precondition to any suspension, transfer or discharge from employment and the Contractor or Subcontractor may impose a suspension, transfer or discharge for safety violations if it so chooses without having engaged in prior progressive discipline;
 - d. It is expected that individuals who engage in or who are responsible for any unmitigated life threatening conduct or for willful disregard to the safety requirements of this Plan shall be subject to immediate discharge or permanent transfer off the Project.
5. **Follow Up.** Contractors and Subcontractors shall take follow up action to ensure that the actions taken are effective. If it is observed that the actions originally taken have not been effective to prevent a repeat of the particular unsafe act or to prevent the particular individual(s) from engaging in that or other unsafe acts, the Contractor or Subcontractor, as applicable, shall take more aggressive disciplinary and corrective action.
6. **Documentation.**
 - a. Each Contractor and Subcontractor shall fully document the following:
 - i Known unsafe acts;
 - ii The investigation undertaken in accordance with these procedures;
 - iii The disciplinary and/or corrective action taken;
 - iv The rationale for choosing the particular action taken;
 - v The follow up action that is planned;
 - vi The follow up action that is taken; and
 - vii The results of the follow up action.
 - b. The documentation shall be maintained in an organized manner by each Contractor or Subcontractor

as applicable and in accordance with the Record-Keeping requirements of this Plan. Records of discipline, job counseling and training shall be placed in the personnel file of the employee. Copies of the documentation shall be provided to the Owner and/or its representatives.

7.0 Record-Keeping and Files

The Contractor, all Subcontractors and Sub-subcontractors shall maintain a master or central file for safety and health related documentation on the Job Site. Files shall be maintained in such a manner that distinguishes each Contractor and their Subcontractors and Sub-subcontractors.

The Owner and/or its representatives shall have the right to review all documentation at any time upon request. The Contractor shall give full cooperation during these reviews.

The following documentation shall be in the Safety Files:

- The Contractor Safety Plan.
- Hazard Communication Program, including current Material Safety Data Sheets (MSDS).
- Site Emergency Plans.
- All required safety & health permits.
- Weekly Tool Box/Tailgate Safety Meeting reports – including meeting topic(s) and employee attendance/sign-up sheets.
- Specific job hazard worker training.
- Job Site Safety Inspection reports – including documentation of corrective measures for closure.
- Equipment inspection reports.
- Crane inspection reports – daily and monthly (annual certification reports required prior to equipment operation).
- Employee orientation training records.
- Accident investigation reports, including near misses.
- Job Hazard Analysis.
- Competent person qualifications.
- Written Safety Violations.

8.0 Job Site Inspections

Inspections

Daily Safety and Health Inspections shall be continually conducted by the Contractor, all Subcontractors and Sub-subcontractors for each of their respective Work areas on the Job Site. Documentation of all identified and corrected deficiencies shall be maintained on file.

Corrective Measures

Corrective Measures to abate all deficiencies shall be completed immediately if life-threatening/serious conditions exist or no later than the end of the working shift for non-life threatening/serious conditions. All Work shall be stopped until imminent danger hazards have been abated. Documentation of these corrective measures shall be provided to the Program's Safety Representative.

If a deficiency cannot be abated within the same shift, a letter shall be provided to the Owner or its representatives outlining the reason(s) why and the step(s) taken as an interim measure to control the potential hazard.

Non-Abatement

If Contractor, Subcontractor or Sub-subcontractor fails to make corrections to identified deficiencies in a timely manner,

the Owner or its representatives will:

- Notify the Contractor in writing to take prompt corrective action to eliminate Construction Safety and Health concerns. Written notification will describe specific contract or code violations;
- Resolve outstanding Construction safety issues and maintain documentation of corrective actions;
- Report in writing to the Contractor, the name(s) of the individual(s) and their supervisor(s) who are observed to violate Construction Safety Requirements, with copies to the Project File. If necessary, the Owner or its representatives may require the Contractor to remove these individual(s) and/or their supervisor(s) from the Job Site.

Stoppage of the Work

The Owner and/or its representatives shall be authorized to order, at the Contractor's expense, a stoppage of the Work until unsafe conditions are abated.

9.0 Drug and Alcohol Free Workplace Program

General Statement. The Owner is committed to maintaining a drug and alcohol free workplace. The Owner has a vital interest in maintaining safe, healthful and efficient working conditions. Alcohol and illegal drug use or possession pose a serious threat to workplace safety and health. Impairment from alcohol and the use and possession of illegal drugs pose a danger. The costs associated with implementing the Drug and Alcohol Free Workplace Program, (herein referred to as "Program") shall be the responsibility of the Contractor, Subcontractor or Sub-subcontractor, as applicable.

Responsibilities of Contractor and Subcontractors. Contractors and subcontractors shall adopt, implement and enforce drug and alcohol free workplace programs that comply with the following minimum conditions:

1. Employee Prohibitions

- a. No covered employee shall report for duty or remain on duty (i) while having an alcohol concentration of 0.04 or greater; (ii) while possessing alcohol; (iii) while using alcohol; or (iv) within Four (4) Hours after using alcohol.
- b. No covered employee shall report for duty or remain on duty when the employee uses any controlled substance (except when the use is pursuant to the written instructions or prescription of a physician who has advised the employee that the substance does not adversely affect the employee's ability to work safely) or tests positive for controlled substances.
- c. No covered employee required to take a post-accident alcohol test under this program shall use alcohol for Eight (8) Hours following the accident, or until he or she undergoes a post-accident alcohol test, whichever first occurs.
- d. No covered employee shall refuse to submit to a post-accident alcohol or controlled substances test required under this program or a reasonable suspicion alcohol or controlled substances test required by this program, or a follow-up alcohol or controlled substances test required under this program.

2. Employee Duties

- a. Covered employees shall comply with all mandates and prohibitions contained in this Program.
- b. Covered employees shall cooperate fully with all required testing and shall promptly report to all testing as directed.
- c. Covered employees are required to notify the Contractor or Subcontractor as applicable if they are taking any therapeutic drugs and shall supply a written certification on a form provided by the Contractor or Subcontractor from the physician prescribing the drug(s) that the substance(s) will not adversely affect the employee's ability to work safely and to comply with the safety requirements on the job.

3. Consequences of Covered Employees Engaging in Substance Use-Related Conduct.

- a. Consistent with contractual, legal and constitutional requirements, a determination shall be made by

the Contractor or Subcontractor, as applicable, as to the appropriate disciplinary action, if any, to be imposed upon any covered employee who violates any of the prohibitions or mandates of this Program. Nothing in this Program shall be construed to limit the authority of any Contractor or Subcontractor to impose discipline, including discharge, as it shall determine so long as the minimums set forth in this Program are satisfied. Unless prohibited by law, contract or collective bargaining agreement, any employee who engages in any of the following conduct shall not be permitted access to the Construction Project and shall not be permitted to engage in any of the Work:

- i Fails a drug test;
 - ii Possesses illegal drugs;
 - iii Refuses to submit to a drug or alcohol test;
 - iv Is in possession of alcohol on the Work Site; or
 - v Is convicted or pleads guilty or *nolo contendere* of illegal drug use, possession or trafficking.
- b. Any covered employee tested under this Program who is found to have an alcohol concentration of 0.02 or greater but less than 0.04 shall be suspended without pay at least until the start of the employee's next regularly scheduled duty period that is at least Twenty-Four (24) Hours following the administration of the test.
- c. Any covered employee: (i) who reports or remains on duty while having an alcohol concentration of 0.04 or greater, possessing alcohol, using alcohol or having used alcohol within Four (4) Hours of reporting to Work; or (ii) who reports or remains on duty when the employee uses or has used any controlled substance (except when the use is pursuant to the written instructions or prescription of a physician who has advised the employee that the substance does not adversely affect the employee's ability to safely Work and the employee has so advised the Contractor or Subcontractor) or tests positive for controlled substances; or (iii) who consumes alcohol in contravention of a post-accident alcohol test requirement or refuses to submit to any drug or alcohol test required under this Program, and who is not to be discharged from employment, shall be suspended without pay and shall not be reinstated until the following requirements have been met:
- i The employee has been advised of the resources available to the employee in evaluating and resolving problems associated with the misuse of alcohol and the use of controlled substances, including the names, addresses and telephone numbers of substance abuse professionals and counseling and treatment programs; and
 - ii The employee has been evaluated by a substance abuse professional who shall determine what assistance, if any, the employee needs in resolving problems associated with alcohol misuse and controlled substances use; and
 - iii The employee has undergone a return-to-work alcohol test with a result indicating an alcohol concentration of less than 0.02 if the conduct involved alcohol, or a controlled substance test with a verified negative result if the conduct involved a controlled substance; and
 - iv If the employee has been identified as needing assistance in resolving problems associated with alcohol misuse or controlled substances use, the employee shall be evaluated by a substance abuse professional to determine that the employee has properly followed a rehabilitation program as prescribed.
4. Mandatory Drug and Alcohol Testing. Contractors and Subcontractors shall, as part of this Program, adhere to the following Post-Accident, Reasonable Suspicion, Return-to-Work and Follow-Up drug and alcohol testing of covered employees:
- a. Post-Accident Testing. As soon as practicable following an accident in connection with the Work involving any personal injury of the employee or of another requiring medical attention or first aid, or any property damage greater than One Thousand Dollars (\$1,000), the employee shall be tested for alcohol and controlled substances.
- i An employee who is subject to post-accident testing under this policy shall remain readily available for such testing or may be deemed by the Contractor or Subcontractor, as applicable, to have refused to submit to testing;
 - ii If a post-accident alcohol test is not administered within Two (2) Hours following the accident,

- the Contractor or Subcontractor as applicable, shall prepare and maintain a record stating the reasons the test was not promptly administered. If the test is not administered within Eight (8) Hours following the accident, attempt to administer the alcohol test shall cease and the Contractor or Subcontractor, as applicable, shall prepare and maintain a record setting forth why testing was not performed.
- iii If a post-accident controlled substances test is not administered within Thirty-Two (32) Hours following the accident, attempts to administer the test shall cease and the Contractor or Subcontractor, as applicable, shall prepare and maintain a record stating the reasons why the test was not administered within the required time.
 - iv A breath or blood test for the use of alcohol or a urine test for the use of controlled substance conducted by federal, state or local officials or policy having authority to conduct such testing shall be considered to meet the requirements of this Program if the results will be turned over to the Contractor or Subcontractor.
- b. Reasonable Suspicion Testing. A covered employee shall be required to submit to an alcohol and/or controlled substances test when the Contractor or Subcontractor, as applicable, has reasonable suspicion that the employee is using or has used alcohol or controlled substances in violation of the prohibitions or mandates of this Program.
- i The determination that reasonable suspicion exists to require an employee to undergo testing must be based on specific, contemporaneous, articulable observations concerning the appearance, behavior, speech or body odors of the employee. The observations may include indications of the chronic and withdrawal effects of controlled substances. Reasonable suspicion as to alcohol use may be based only on observations made while the employee is working or just before the employee begins Work or just after the employee stops working.
 - ii The Contractor and Subcontractors shall designate individuals who shall have obtained necessary training that covers the physical, behavioral, speech and performance indicators of probable alcohol misuse and use of controlled substances. Only those so trained are permitted to make the determination that can lead to Reasonable Suspicion Testing.
 - iii Reasonable Suspicion Testing may not be performed by the individual who made the determination that there was reasonable suspicion for testing.
 - iv A written record shall be prepared and maintained setting forth the basis and observations for the reasonable suspicion leading to the testing. With respect to suspicion related to controlled substances, such record shall be made and signed by the individual who made the observation within Twenty-Four (24) Hours of the observed behavior or before the results of the controlled substances test are released, whichever is earlier.
 - v Reasonable Suspicion Alcohol Testing shall be required while the employee is working, just before the employee begins work, or just after the employee stops working. If an alcohol test is not administered within Two (2) Hours following the determination that reasonable suspicion exists, the Contractor or Subcontractor shall prepare and maintain a record stating the reasons the test was not promptly administered. If the test is not administered within Eight (8) Hours following the determination that reasonable suspicion exists, attempts to administer the alcohol test shall cease and the Contractor or Subcontractor, as applicable, shall prepare and maintain a record setting forth the reasons the test was not administered. Notwithstanding the absence of a reasonable suspicion alcohol test, where there was reasonable suspicion of alcohol use, the employee shall not be permitted to work until:
 - (1) An alcohol test is administered and the employee's alcohol concentration measures to less than 0.02; or
 - (2) Twenty-Four (24) Hours have elapsed following the determination of reasonable suspicion.
- c. Return-to-Work Testing. No employee may return to work after engaging in conduct prohibited by this Program until after he or she has, as appropriate, undergone an alcohol test with a result indicating an alcohol concentration of less than 0.02 or a controlled substances test with a result indicating a verified negative result for controlled substance use.
- d. Follow-Up Testing. Any employee who is in need of assistance in resolving problems associated with

alcohol misuse and/or use of controlled substances shall be subject to unannounced Follow-up Testing as directed by a substance abuse professional. Follow-up Testing shall be conducted only when the employee is working, just before the employee begins work, or just after the employee has stopped working.

5. Miscellaneous

- a. A "covered employee" under this program shall mean any person who is an employee of the Contractor or any Subcontractor and who engages in any Work that is subject to the safety requirements of the Contract or this Plan and any employee of any Contractor or any Subcontractor who operates a commercial vehicle as defined by law in connection with any of the Work.
- b. The means, manner and methods of the testing procedures for alcohol and substances under this Program shall be in accordance with the procedures set forth in Title 49, Part 40 of the Code of Federal Regulations, which, by this reference, are hereby incorporated herein by reference as if fully set forth herein. Without intending to limit the generality of the foregoing requirement, preparation for testing, specimen collection procedures, laboratory personnel requirements, laboratory analysis procedures, quality assurance and quality control procedures, reporting and review of results procedures, protection of employee records procedures, individual access to test and laboratory results, use of certified laboratory requirements, breath alcohol technician requirements, breath alcohol device requirements, quality assurance plans, procedures for confirmation of tests, refusal to test and uncompleted test procedures, inability to provide an adequate amount of breath, invalid test procedures, etc., as governed by 49 CFR, Part 40, shall all be implemented by Contractors and Subcontractors with respect to any drug or alcohol test administered in accordance with this Program.
- c. Work Related Injuries. Contractors and Subcontractors shall require Post-Accident Testing in accordance with the terms and conditions of this Program in the event of any accident that results in a work-related accident. The Post-Accident Testing may be arranged by the Contractor or Subcontractor or may be arranged by the Workers' Compensation carrier. In either event, the procedures contained in 49 CFR, Part 40, shall be followed.
- d. Employee Training. Each Contractor and Subcontractor shall require that all employees are trained and periodically retrained in the requirements of the Drug and Alcohol Free Workplace Program. This training shall be properly documented.

10.0 Accident/Injury Management

Accident Reporting

All accidents resulting in employee injury, property damage, or involving the public shall be reported immediately to the project officials in accordance with the claims reporting instructions provided by the Contractor's Insurance Administrator. All accidents resulting in injuries or illnesses shall be thoroughly investigated by the ***injured worker's supervisor***.

The Contractor shall complete an Accident Investigation Report for all accidents resulting in employee injury, property damage, public involvement or near miss incidents. All Contractors shall cooperate with the Owner and its representatives in the investigation, analysis and defense of any claim, accident, occurrence or insured loss.

Accident Investigation

A formal written "Accident Investigation Report" and "First Report of Injury" shall be completed by the end of the working day/shift of the accident. Identification and review of accident causes shall be completed, identifying corrective actions, persons responsible for corrective actions and date of completion shall be established. Follow-up documentation verifying corrective action shall be required.

Copies of all accident investigation documents shall be maintained on file.

11.0 Workers' Compensation Claims Cooperation

Responsibilities of Contractor and Subcontractors

Contractors and Subcontractors shall adopt, implement and enforce a Workers' Compensation Program that complies with the following minimum conditions:

1. **Compliance with Posting and Notice Requirements.** Each Contractor and Subcontractor shall comply with all posting and notice requirements imposed by Pennsylvania's Workers' Compensation Act. Contractors and Subcontractors shall maintain documentation proving that they have complied with these requirements.
2. **Posting and Designation of Physicians.** In the event that the Workers' Compensation insurer has provided a list of designated physicians to the Contractor and/or Subcontractor, the Contractor and Subcontractor shall properly post and provide notice of the designated physicians to employees in accordance with the requirements of the Workers' Compensation Act. Contractors and Subcontractors shall maintain documentation proving that they have complied with these requirements. Where a designated physician panel is in place, Contractors and Subcontractors shall take action to ensure that injured employees receive treatment from the designated physicians in accordance with the law.
3. **Notice of Workers' Compensation Injuries.** Contractors and Subcontractors shall receive reports of occupational injuries and diseases in accordance with the terms and conditions of the Workers' Compensation Act and shall promptly complete and file the necessary forms and reports with the Commonwealth and the insurer or its representative.
4. **Participation in Claims Meetings.** Contractors and Subcontractors shall participate in claims review meetings when and if scheduled by the Workers' Compensation insurer or its representative.
5. **Return-to-Work Programs.** Contractors and Subcontractors shall cooperate with the Workers' Compensation insurer or its representative to return injured employees to Work as soon as possible consistent with their medical capabilities. Contractors and Subcontractors shall consider and offer modified Work to employees when such Work is available or can reasonably be made available.
6. **Litigation Cooperation.** In the event that there is any litigation growing out of a Work related injury, each Contractor or Subcontractor, as applicable, shall cooperate with the insurer, its representatives and attorneys, in the defense of the claim and shall make necessary evidence and witnesses available for hearing preparation and testimony.
7. **Nothing in this Plan shall be construed as a requirement that any Contractor or Subcontractor take any action that is in violation of law, any applicable collective bargaining agreement or contract.**

12.0 General Safety and Health Policies

All employees shall use protective equipment prescribed by federal, state, and local laws and by this Plan to control hazards or other exposure to illness or injury. **Any employee who willfully refuses to use prescribed protective equipment designed to protect them or willfully damages such equipment shall be subject to disciplinary action which may include immediate removal from the Job Site.**

Competent Person Requirements

The Contractor, all Subcontractors and Sub-subcontractors shall develop and maintain documentation identifying employee(s) designated as a competent person(s). The qualifications for Competent Persons are identified in the Subpart of OSHA 29 CFR 1926. NOTE: Various subparts of OSHA have interpretations as to the qualifications and training required to be designated as a Competent Person (i.e., Subpart P – Excavations; Subpart L – Scaffolding; etc.)

Personal Protective Equipment

Eye and Face Protection

Contractors, Subcontractors and Sub-subcontractors shall provide, maintain and manage eye and face protection for their employees in accordance with OSHA Construction Standards 29 CFR 1926.102.

The Owner and/or its representatives reserve the right to mandate a 100% Eye Protection Policy throughout designated phases of the Work or specific areas of the Project if it is deemed necessary.

Only clear safety glasses shall be worn inside any building(s).

Head Protection

All Construction workers shall wear hard hats which meet ANSI Z 89.1-1986, One Hundred Percent (100%) of the time while on the Construction Site. Hard hats should display the company decal where the employee works.

All delivery personnel, vendors and visitors shall wear approved hard hats while on the Construction Site.

Hearing Protection

All Work areas identified as high noise exposure shall be properly posted to warn employees of the exposure.

Appropriate hearing protection shall be worn in Work areas where noise levels are 85 dBA or greater.

Respiratory Protection

Contractors whose Work activities warrant that employees wear respiratory protection, shall establish and implement a Respiratory Protection Program. The Program shall meet the requirements set forth in 29 CFR 1926.134.

Foot Protection

All personnel on the Construction Site shall wear leather hard-soled work boots. No one is permitted to wear sneakers (including ANSI approved), tennis shoes or athletic shoes of any type, sandals, high heels or open toed shoes on the Construction Site.

Clothing

Suitable clothing for Construction Work shall be worn on the Construction Site. Shirts with sleeves (at least t-shirt (4 inches in length) and full-length pants shall be required. Polyester or similar material is not allowed. Shorts, sweatpants or tank-tops are not allowed.

Fall Prevention

The Fall Prevention Policy is based on the following observations:

- All fall hazards can be eliminated, prevented and/or controlled.
- To control fall hazards is morally responsible, good business and cost effective.
- The establishment and implementation of a Fall Prevention Program is the most effective way to provide a continuous process to identify, evaluate and control fall hazards.

No person/employee shall be exposed to a fall hazard from any elevation greater than Six (6) Feet. In addition, all other construction activities that involves fall protection/prevention shall be performed in accordance with 29 CFR 1926, Subpart M:

- Employees exposed to a fall distance of Six (6) Feet or more (no exceptions), or less where the distance has a likelihood of a serious or fatal injury, shall be protected by the means of a Fall Protection System. **THERE IS A ZERO TOLERANCE POLICY ON FALL PROTECTION. ONE VIOLATION OF THE FALL PROTECTION POLICY WILL RESULT IN THE CONTRACTOR REMOVING THE VIOLATING EMPLOYEE FROM THE SITE FOR THE DURATION OF THE PROJECT. THE EMPLOYEE'S SUPERVISOR MAY BE REMOVED FROM THE SITE FOR FAILURE TO ENFORCE THE FALL PROTECTION POLICY.**
- Fall prevention controls shall be based on the principle that engineering and design techniques for the elimination and prevention of fall hazards shall be utilized above and beyond the use of Personal Fall Protection Equipment. When it is not feasible to provide fall prevention controls, workers exposed to falls shall be equipped with:
 - ◆ Only full-body harnesses and Lanyards with shock absorbers with locking snap-hooks. Body Belts are not permitted on the Project. All Personal Fall Protection Equipment shall be compatible and all manufacturers equipment guidelines shall be understood and followed.
 - ◆ Appropriate anchorage points, capable of supporting Five Thousand (5,000) Pounds per worker attached shall be properly installed.
- Contractors performing structural erection activities (such as precast concrete and steel erection) shall provide upon request a "Task Specific Fall Protection Plan" which complies with the Six (6) Foot Fall Protection

Requirement. **THE ABOVE STATED ZERO TOLERANCE POLICY FOR FALL PROTECTION ALSO APPLIES TO STEEL ERECTION.**

- Ladders (straight, extension & step) shall be used only for employee access and short duration miscellaneous light Work where 3-point contact with the ladder can be maintained. If ladders are to be used for performing long duration heavy Work at heights Six (6) Feet and greater (or any height where the likelihood of a serious or fatal injury exists), the fall hazards shall be controlled through the use of fall protection.

Excavations and Trenches

Excavations shall be performed in accordance with 29 CFR 1926, Subpart P:

- A safe means of access and egress shall be provided for employees from excavations and trenches regardless of their depth at intervals that provide no more than Twenty-Five (25) Feet of lateral travel.
- A Competent Person shall be present anytime excavation Work is performed. The Competent Person shall inspect each excavation before the start of each shift and as conditions change (rain run-off, seeping water, freezing/thawing conditions, vibration, atmospheric conditions, etc.). All inspections shall be documented and maintained on file.
- All soils shall be classified as type "C" until the Competent Person can demonstrate the soil can be reclassified as another type, using acceptable soil analysis practices.
- All open excavations and trenches shall be barricaded or adequately guarded at all times with highly visible material.
- Equipment, material and spoil piles shall not be placed closer than Two (2) Feet from the excavation or trench edge.
- Atmospheric testing shall be conducted and completed in excavations and trenches where possible hazardous conditions exist prior to employees entering.

Electrical

Electrical Work shall be performed in accordance with 29 CFR 1926, Subpart K:

- Only qualified electricians familiar with code requirements shall be allowed to perform electrical Work.
- Extension cords used with portable electrical tools and appliances shall be heavy duty and of the three-wire type. Cords shall be covered, elevated or otherwise protected from damage which would create a hazard to Construction Site Personnel.
- Electrical cords and equipment shall be visually inspected before each shift for external defects. All damaged and defective cords shall be removed from service immediately (this includes cords with the ground prong missing). Cords shall be repaired with approved heat-shrink methods, electrical tape is not permitted.
- All temporary electrical tools, cords and equipment shall be properly protected by Ground Fault Circuit Interrupters (GFCI). All portable generators shall have properly functioning GFCI outlets. GFCI receptacles shall be tested monthly with a multi-range GFCI tester (the tests shall be documented) to insure the GFCI is properly functioning and protecting the worker.
- Electrical equipment or machinery shall be de-energized and rendered inoperative by the electrician performing Work on the system. Any company performing Work on electrical equipment shall develop a "task-specific" lockout/tagout safety plan. Lockout/Tagout shall be performed in accordance with 29 CFR 1910.147. The failure to follow lockout/tagout procedures will result in immediate removal from the Project.

Scaffolds

Scaffold Work shall be performed in accordance with 29 CFR 1926, Subpart L:

- Lean-to scaffolds and makeshift platforms shall be prohibited.
- Scaffolds shall not be used for storage of materials except material currently being used.
- All scaffolds shall be adequately designed to carry, without failure, Four (4) Times the maximum intended

load. At no time shall any scaffold be overloaded.

- All scaffolds shall be maintained in safe condition. Scaffolds damaged or weakened, from any cause, shall be immediately removed from service.
- Scaffolding more than Six (6) Feet above the working surface shall have standard guardrails and toeboards properly installed.
- Each Contractor working with scaffolds shall designate, in writing, the name of their designated Competent Person for erection, dismantling, altering and moving of scaffolds.
- Scaffolds shall be inspected prior to each shift by the designated Competent Person.
- Proper access shall be provided for all employees to working areas. Employees shall not climb on cross-bracing to access scaffold.
- Scaffolds shall be erected on sound, rigid surfaces. Base-plates and mud-sills shall be used with all scaffolds. Unstable objects such as brick, block, etc. shall not be used to support scaffolds.

Welding and Cutting

Welding and Cutting Work shall be performed in accordance with 29 CFR 1926, Subpart J:

- Welding leads and cutting hoses shall be kept clear of walkways and stairways.
- Flash arrestors shall be installed on both oxygen and acetylene hoses at the regulator connection.
- All welders shall wear approved eye and head protection when welding. All personnel assisting the welder shall also wear approved protective eye protection.
- Prior to welding or cutting a "20-ABC" rated fire extinguisher shall be within easy reach of the worker. A fire watch shall be stationed at all locations where sparks and/or flames may fall to a lower floor/work area or to another side of a wall.
- A suitable cylinder truck, with chain, shall be used to keep cylinders from being knocked over while in use.
- Spent welding rods shall be picked up and disposed of daily.
- When practical, all welding and cutting operations shall be shielded by non-combustible or flame-proof screens.
- Oxygen and acetylene cylinders shall not be stored inside buildings.
- Rubber boot protectors shall be provided on all welding leads where they make connections at the welding machine.
- All Contractors performing any welding or cutting activities shall ensure compliance with OSHA 29 CFR 1926.1153 rules and regulations to prevent any silica exposure.

Cranes

Crane Operations shall be in accordance with 29 CFR 1926, Subpart N:

The following requirements shall be followed by the Contractor and all tiered Subcontractors for all cranes entering the Construction Area:

- All hydraulic and lattice boom cranes operating on the Construction Site shall be equipped with a functioning "anti-two blocking" device.
- The operator shall know the weight of every suspended load, regardless of size.
- All cranes shall have an annual inspection (completed and certified by a nationally recognized crane inspection organization).

All crane operators shall be qualified prior to operating any crane on the Job Site:

- Operators shall meet the requirements of Chapter 5, ANSI B30.5c-1992.
- An up-to-date résumé detailing the operator's qualifications (i.e., years of experience, previous jobs worked

on, etc.) shall be maintained in the Contractor's and/or any Subcontractors and Sub-subcontractor's files at the Job Site.

- Before any operator is allowed to operate a crane on the Construction Site, the Contractor and/or Subcontractors and Sub-subcontractors shall have the operator perform a functional operation appraisal to ensure the operator is qualified. This shall be documented and maintained on file.

Cranes shall be inspected for safety-related deficiencies and defective/damaged parts that effect the safe operation of a crane. Cranes shall be immediately removed from service until repairs can be made. The following inspection criteria shall be followed:

- After set-up and prior to initial lift;
- Before each shift;
- After every malfunction;
- Manufacturer's inspection guidelines.

Motor Vehicles and Heavy Equipment

Heavy Equipment Work shall be performed in accordance with 29 CFR 1926, Subpart O:

- All employees who operate equipment and vehicles shall have sufficient experience with that particular piece of equipment and shall be trained in the safe operation of that equipment.
- All heavy equipment including: cranes, forklifts, dozers, endloaders, etc. shall have a reverse signal/back-up alarm audible above surrounding background noise.
- No one shall ride in a vehicle or mobile equipment unless they are in a seat (exceptions, if the equipment is designed to be operated while standing up). Riding in the back of pick-up trucks shall not be allowed.
- All motor vehicles and equipment brought on-site shall be thoroughly inspected and shall be in safe operating condition.

Demolition Activities

All Contractors performing any removal or demolition activities shall ensure compliance with OSHA 29CFR 1926.62 rules and regulations to prevent any lead contamination.

13.0 Infectious/Communicable Disease Plan (ICDP)

Objective

The Contractor recognizes that public health promotes the welfare of the entire population, ensures its security and protects it from the spread of infectious/communicable diseases. The Contractors further recognize that Federal and State Governmental responsibilities for public health extend beyond voluntary activities and may include additional authorities such as orders related to quarantine, isolation, stay at home, travel restrictions, work restrictions, or other requirements to protect each person on the job site.

Policy Statement

By Contract, the Contractor, all Subcontractors and Sub-subcontractors on the Project Site shall comply with any orders, requirements or recommendations issued by the following entities regarding infectious or communicable diseases:

- Federal Department of Health and Human Services Center for Disease Control (CDC)
- Federal Occupational Safety and Health Administration
- Pennsylvania Department of Health
- The Office of the Governor of Pennsylvania

- Any other applicable federal, state and local requirements.

The on-site supervisory personnel are responsible for the actions of those they supervise, for maintaining safe and healthy working conditions in their areas of responsibility, and for strictly enforcing, at a minimum, the following safety and health protocols during periods of active orders related to quarantine, isolation, stay at home, travel restrictions, work restrictions, or other requirements.

Common Practices

A. Control of Worksite and Contractor responsibility for Common Protocols

1. Each Prime Contractor shall appoint a pandemic safety officer properly trained to provide controls and oversight of procedures related to site and building controls and cleanliness and in particular to coordinate entry of each worker prior to entering site. General Contractor's pandemic safety officer shall be called "coordinator" and shall be the coordinator of personnel information for site access and shall perform the following limited duties to coordinate common protocols between all Contractors.
 - a. Verify that any person entering the worksite has received an orientation regarding worksite protocols specific to the current disease and/or orders and provide the orientation to any personnel who has not completed it.
 - b. Perform any other verification or checks of each worker in accordance with current order, requirements, or recommendations issued by agencies list in the "Policy Statement" of this Article.
 - c. Verify and record that adequate and designated wash and toilet facilities are being properly cleaned on a regular basis as agreed to by the Contractors.
 - d. Collect all visitor and orientation data and provide electronically to Owner, CM and all contractor superintendents when required.
2. GC shall provide any common disease related signage to communicate key OSHA, CDC and other governmental recommendations (and post signage where appropriate) to staff and tradespeople. Place posters that encourage staying home when sick, cough and sneeze etiquette, and hand hygiene at the entrance to your workplace and in other workplace areas where they are likely to be seen when required by current health guidelines or at the request of the CM, Architect, or Owner.

B. GC to provide temporary toilet facilities and hand wash stations in a minimum quantity of 1 for every 10 persons on the jobsite on a regular basis.

- a. Wash stations and toilet facilities should be paired together and placed in locations for easy access by personnel and for cleaning operations.
 - i. All facilities are to be posted with proper hand washing procedures.
 - ii. All facilities are to be cleaned and sanitized daily. Avoid cleaning techniques, such as using pressurized air or water sprays, that may result in the generation of bioaerosols.
 - iii. All facilities are to be supplied with toilet paper, paper towels and hand sanitizer or soap and water.
 - iv. All facilities are to be provided with disposable plastic waste bags of sufficient size to handle daily waste. Bags are to be supported in containers or frames to keep them upright, open and accessible.

C. GC shall perform daily sanitizing, cleaning and providing supplies for all wash stations and toilet facilities both permanent and temporary. GC shall also provide regular sanitizing and cleaning of all touch surfaces and other areas as noted below.

- a. Avoid cleaning techniques, such as using pressurized air or water sprays that may result in the generation of bioaerosols.

Recommended Minimum Plan Protocols:

A. Control and Cleaning of Worksite:

1. Identify and use defined entrances and exits for trades people.
2. Develop site specific procedures for the receiving of deliveries and unloading.
3. Limit visits from third parties not specifically involved in the work process.
4. To the maximum extent possible, continue to promote social distancing and support the containment of propagation should it arise.
5. The Contactor shall be diligent in the frequency of cleaning especially in enclosed spaces. It is recommended that knobs and handles on all entry doors, faucets, toilets, coffee machines and water coolers be cleaned daily. Frequent cleaning of all surfaces that are handled by personnel will be necessary. Avoid cleaning techniques, such as using pressurized air or water sprays that may result in the generation of bioaerosols.
6. All offices at jobsites shall implement additional cleaning measures as recommended by the CDC. Employees are responsible for cleaning their workstation area with disinfectant wipes.
7. Identify specific locations and practices on the site and in the building for daily trash such as: paper, hand towels, food containers, etc. Instruct workers responsible for trash removal in proper PPE/hand washing practices.
8. Any other measures deemed to increase the safety or limit the propagation of the virus.

B. PPE and Recommendations for Individuals:

1. Workers are to be instructed to clean their hands often with an alcohol-based hand sanitizer that contains at least 60-95% alcohol or wash their hands with soap and water for at least 20 seconds. Soap and water should be used preferentially if hands are visibly dirty.
2. As written above, PPE is the responsibility of each contractor. Do not share personal protection equipment (PPE). Ensure used PPE is disposed of properly.
3. Utilize disposable gloves where appropriate and instruct workers to wash hands after removing gloves and dispose of them properly.
4. Disinfect reusable supplies and equipment.
5. In such cases when dictated by the CDC or other entity as listed in the "Policy Statement" of this Article, appropriate face masks, face shields and other PPE must be worn. For specialized activities which mandate work in close proximity, contractors shall develop site specific written work plans and procedures to carry out the work.
6. Any other measures deemed to increase the safety or limit the propagation of the virus.

Government Reference Sources Applicable to Current Orders:

- PA GCAP - <https://www.mbawpa.org/news/covid-19-response/>
- Centers for Disease Control and Prevention - <https://www.cdc.gov/coronavirus/2019-ncov/index.html>
- AGC of America has assembled general guidance and links to information from our federal agency partners and health organizations. <https://www.agc.org/coronavirus-covid-19>
- For OSHA standards and directives and other related information that may apply to worker exposure to COVID-19, visit their website: <https://www.osha.gov/SLTC/covid-19/standards.html>

END OF SECTION

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SECTION 01 11 00 – SUMMARY OF THE PROJECT

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. Section Includes:

1. Project information.
2. Work covered by Contract Documents.
3. Work performed under Owner's separate contracts.
4. Work sequence.
5. Contractor's use of site and premises.
6. Coordination with occupants.
7. Specification and Drawing conventions.
8. Miscellaneous provisions.

B. Related Requirements:

1. Section 011400 "Work Restrictions" for limitations governing use of Project site.
2. Section 015000 "Temporary Facilities and Controls" for limitations and procedures governing temporary use of Owner's facilities.
3. Section 017300 "Execution" for coordination of Owner-installed products.

1.3 PROJECT INFORMATION

A. Project Identification: 13th & Union Elementary Renovations. CHA project #: 093251

1. Project Location: 1600 North 13th Street, Reading, PA 19604.
2. Applicable County: Berks
3. Applicable Local Municipality: City of Reading.

B. Owner: Reading School District, 800 Washington Street, Reading, PA 19601. 484-258-7000

C. Owners Representative Identification: The Construction Manager (CM) for the Project is CHA, 1 East Broad Street, Suite 310, Bethlehem, PA 18018. Telephone: 484-455-4601.

D. Architect Identification: AEM Architects, Inc., 3700 Perkiomen Avenue, Reading, PA 19606. Telephone: 610-779-3220.

1.4 WORK COVERED BY CONTRACT DOCUMENTS

- A. The Work of Project is defined by the Contract Documents and includes, but is not limited to, the following:
 1. Selective demolition
 2. Phased installation of new exterior doors and windows

SUMMARY OF THE PROJECT

- B. 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. General (GC)
 - 2. Other as determined or required by Owner.
- C. Testing:
 - 1. Contractors are to perform all factory, Source Quality Control, or shop testing and any other testing required.
 - 2. Contractors are to perform any field testing of electrical systems or data wiring systems.
 - 3. Contractors are to perform testing of above or below ground pipes, ductwork, and mechanical systems including pressure, air, water, or vacuum testing required.
 - 4. Contractors are to perform any other field testing that may be required by Specification Divisions 02-33 or not included by the Owner's Testing Agent.
 - 5. All contractor testing shall be performed in the presence of the Construction Manager and/or (if required) in the presence of the municipal agency having jurisdiction.
- D. Construction Waste Management for all Project activities is by the Prime Contractor.
- E. The Contractor responsible for installation of the systems and equipment is responsible for commissioning each system. Coordination and verification of commissioning shall be the responsibility of the Prime Contractor.

1.5 WORK PERFORMED UNDER OWNER'S SEPARATE CONTRACTS

- A. Cooperate fully with Owner and separate Owner-hired firms and/or agencies so work may be carried out smoothly, without interfering with or delaying Work under this Contract. Coordinate the Work of this Contract with work performed under Owner's separate contracts.
 - 1. Construction Testing and Special Inspections:
 - a. Conducted by separate firm hired by the Owner and will require the participation and cooperation of all Contractors.
 - b. The Owner will procure and bear costs for **only the following**: field testing for earthwork, concrete, masonry, asphalt and concrete paving, fireproofing and firestopping, and structural steel.
 - 2. Commissioning Verification Authority and HVAC Testing, Adjusting, and Balancing (CVA/TAB):
 - a. Conducted by separate firm hired by the Owner and will require the participation and cooperation of all contractors.
 - b. The Prime Contractor is responsible for all pressure testing of any pipes, ductwork, or field systems and for coordinating and supporting all the testing and balancing.
 - 3. Indoor Air Quality Testing:
 - a. Conducted by separate Firm hired by the Owner and will require the participation and cooperation of all Contractors.
 - 4. Other contracts are at the Owner's sole discretion.

SUMMARY OF THE PROJECT

1.6 WORK SEQUENCE

- A. The entire Work shall be completed in compliance with the Project phasing indicated on the Drawing Phasing Plan(s), the erosion and sedimentation control plan(s), and the milestone completion dates listed. Any deviations from these requirements shall be subject to the approval of the Construction Manager. The Owner reserves the right to enforce liquidated damages for contractor's non-compliance with any of the phasing, milestone, and substantial completion dates.
 - 1. The Notice to Proceed will be issued as noted on the Phasing Plan(s).
 - 2. Completion for each phase and milestones are noted on the Phasing Plan and must be strictly complied with.
 - 3. Completion for all contracts is as follows:
 - a. Project Substantial Completion – January 16, 2026.
 - b. Project Final Completion – January 31, 2026.
- B. See Phasing Plan(s) for milestone dates. The contractors' sequence and CPM schedule shall incorporate all milestone dates and comply with all dates noted therein for completing the Project. The dates provided are the milestone completion dates which will be enforced. All building systems are to be installed in compliance with the milestone dates identified on the Phasing Plans.
- C. Construction work for the building shall be performed in a sequence to ensure that all building systems are systematically installed in an efficient manner. The mechanical and electrical rooms shall be constructed in an early sequence to permit rough-in by the Mechanical, Electrical, and Plumbing trades and to ensure proper operation of life safety systems in occupied areas of the building in the timeframes identified on the Phasing Plans.
- D. Contractor is to clean and turn over the building in a sequence for Owner fit-out needs but not occupancy, at least one month prior to the substantial completion date or as stated on the Phasing Plans.
- E. If the Notice to Proceed or a required permit or approval from an approval agency that is required for start of work is delayed for any reason beyond the control of any Prime Contractor that prevents the Contractor from performing Work, all subsequent phased completion dates and milestone completion dates will be adjusted by the exact same number of days.
- F. If a specific milestone or phased completion date is delayed for any reason beyond the control of any Prime Contractor that prevents the Contractor from performing Work, and the delay impacts subsequent milestone and phased completion dates, remaining milestone and phased completion dates will be adjusted by the exact same number of days.
- G. Liquidated damages apply for all phased completion dates and milestone completion dates shown on the Phasing Drawings.
- H. All Work must be completed in accordance with the Phasing Drawings, the Project NPDES permit requirements, the approved Project schedule, and in a sequence approved by the Architect, Engineer, and Owner. Prime contractor will be required to be a co-permittee on the Owner's NPDES permit and shall submit the appropriate application forms to the appropriate County Conservation District.
- I. The Phasing Plans identify timeframes necessary for the Owner to complete moving operations for occupancy of individual building areas. In the event of any delay in the Work that will impact the relocation or moving of Owner's operations, furnishings, or equipment, the Owner has the discretion to adjust its move or relocation milestone schedule by up to 30 days. Such action by the Owner shall be issued in writing to the contractor not less than 30 days prior to the anticipated milestone date.

1.7 CONTRACTOR'S USE OF SITE AND PREMISES

- A. Contractors shall comply with the requirements of Section 011400, "Work Restrictions."

SUMMARY OF THE PROJECT

- B. General: Contractor shall have limited use of Project site for construction operations as designated on the Phasing Plan(s) during construction period. The site is surrounded by uses such as residences, businesses, public park, and public streets. The Contractor must coordinate activities and cooperate with adjacent uses including any of their construction activities. Contractor must also schedule, coordinate, and perform construction activities to avoid disruption of ongoing operations. Contractor must schedule and perform certain work on weekends and holidays to avoid disruptions. This may include street and utility work.
- C. Contractors shall restrict break areas to those designated by the Owner and Construction Manager.
- D. Contractors shall place trailers and materials in designated areas as indicated on Phasing Plan(s) and in coordination with Construction Manager.
- E. Burial of waste materials is not permitted.

1.8 COORDINATION WITH OCCUPANTS

- A. Full Owner Occupancy: Owner will occupy existing elementary school Project site and adjacent fields during construction period. Cooperate with Owner during construction operations to minimize conflicts and facilitate Owner usage. Perform the Work so as not to interfere with Owner's day-to-day operations.
 - 1. Maintain access to existing walkways and other adjacent occupied or used site facilities. Do not close or obstruct walkways, driveways, or other occupied or used areas without written permission from Owner and approval of authorities having jurisdiction.
- B. Owner Limited Occupancy of Completed Areas of Construction: Owner reserves the right to occupy and to place and install equipment in completed portions of the Work, prior to Substantial Completion of the Work, provided such occupancy does not interfere with completion of the Work. Such placement of equipment and limited occupancy shall not constitute acceptance of the total Work.
 - 1. Obtain a Certificate of Occupancy from authorities having jurisdiction before limited Owner occupancy.
 - 2. Before limited Owner occupancy, mechanical and electrical systems shall be fully operational, and required tests and inspections shall be successfully completed. On occupancy, Owner will operate and maintain mechanical and electrical systems serving occupied portions of Work.

1.9 SPECIFICATION FORMATS AND CONVENTIONS

- A. Specification Format: The Technical Specifications are organized into Divisions and Sections using the CSI/CSC's "MasterFormat" numbering system.
 - 1. Section Identification: The Specifications use section numbers and titles to help cross-referencing in the Contract Documents. Sections in the Project Manual are in numeric sequence; however, the sequence is incomplete. Consult the table of contents at the beginning of the Project Manual to determine numbers and names of sections in the Contract Documents.
- B. 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. Abbreviated Language: Language used in the Specifications and other Contract Documents is abbreviated. Words and meanings shall be interpreted as appropriate. Words implied, but not stated, shall be inferred, as the sense requires. Singular words shall be interpreted as plural, and plural words shall be interpreted as singular where applicable as the context of the Contract Documents indicates.
 - 2. Imperative mood and streamlined language are generally used in the Specifications. Requirements expressed in the imperative mood are to be performed by Contractor. Occasionally, the indicative

SUMMARY OF THE PROJECT

or subjunctive mood may be used in the section text for clarity to describe responsibilities that must be fulfilled indirectly by Contractor or by others when so noted.

- a. 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.
 - b. All references to days shall mean calendar days unless otherwise designated.
- C. Division 00 Procurement and Contracting Requirements: General provisions of the Contract, including the General Conditions, apply to all Sections of the Specifications.
 - D. Division 01 General Requirements: Requirements of Sections in Division 01 apply to the Work of all Sections in the Specifications.
 - E. Drawing Coordination: Requirements for materials and products identified on Drawings are described in detail in the Specifications.

1.10 MISCELLANEOUS PROVISIONS

- A. Local Municipal Approvals & Permits: The Design Team will submit drawings for building code permits to the City. The Owner will pay building code permit fees directly to the City or authorities having jurisdiction. The Contractor shall submit all City-required license and business privilege fee data and all other City-requested documentation necessary to proceed with work. Contractors must obtain all necessary state, county, or local municipal approvals prior to substantial completion. Contractors must obtain all necessary state, county, or local municipal approvals prior to substantial completion.
- B. Prior to acceptance as substantially complete, all general construction, all mechanical, electrical, and plumbing systems shall be complete, fully operational, tested as required, inspected by approval authorities, and certified complete.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

- 3.1 Contractor shall complete all work in the time period specified in the Contract. Contractor(s) shall include all necessary time and the related cost required including but not limited to; overtime, shift work, weekends, and holidays in order to complete the work as specified within the Contract time.

END OF SECTION

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SECTION 011400 - WORK RESTRICTIONS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including General Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 USE OF PREMISES

- A. Use of Site: Limit use of premises to work in areas indicated. Do not disturb portions of site beyond areas in which the Work is indicated.
 - 1. Work hours shall be defined as Monday through Saturday from 6:00 a.m. to 4:00 p.m. as required to complete the Work and must comply with local City ordinances.
 - 2. Limits: Confine constructions operations to the legal property boundaries.
 - 3. Owner Occupancy: Owner will occupy the existing building site throughout the construction period. Refer to the Phasing Drawings, which outline the general sequence of construction as it relates to the Work being conducted on property. All contractors must comply with phasing and milestone dates listed in the Contract Documents.
 - 4. Perform the Work so as not to interfere with Owner's operations, or public access and adjacent public streets and residences. At all times, provide measures to ensure safe access by the Owner and the public.
 - 5. District Holidays: Work is not permitted on June 19th (Juneteenth) or any District Holiday without prior written approval from the Owner or Construction Manager. Contractor is responsible for familiarizing themselves with the District calendar and workdays as approved in the Project schedule.
 - 6. Driveways and Entrances: Keep driveways and entrances serving premises clear and available to Owner, Owner's representatives, and emergency vehicles at all times. Do not use these areas for parking or storage of materials.
 - a. Conduct construction operations in accordance with acceptable procedure to minimize noise and dust. Fugitive dust from roadways and the site is to be reduced by means of water sprayed from a water truck or tank supplied and operated continuously by the General Contractor during construction operations.
 - b. General Contractor shall be responsible for site access control, coordination and cleaning of site and public roads. The General Contractor will arrange for roadway cleaning and mechanical sweeping on a daily basis as needed and directed by the Construction Manager.
 - c. Use roadways, driveways, and entrances designated for construction only.
 - 7. Comply with the requirements of municipal agencies having authority and project NPDES permit requirements.
 - 8. General Contractor shall provide protection, barriers, signage, and traffic controls necessary to maintain public streets and sidewalk access and to facilitate access to temporary and permanently occupied areas during construction.
 - 9. All contractors shall provide protection, barriers, and signage for any specific scope of work under their contract that affects the public access on roads and sidewalks.
 - 10. Comply with District tobacco use policies. In any case, smokeless tobacco use and smoking in any form, including vaping, is prohibited on the site and within any part of structure at any phase of construction. Contractors and subcontractors found smoking on site will receive an initial warning violation. In the event of a second violation, the contractor shall be fined \$100 and the offending individual will be removed from the jobsite.

WORK RESTRICTIONS

11. Contractor will comply with all District regulations and policies while on District property, as well as any special regulations adopted by the Owner relating to this Project. Contractor, subcontractors, and their agents and employees shall not socialize with students or faculty.
12. Inappropriate language, dress, or conduct will not be tolerated on the construction site. Violations of the above shall be grounds for dismissal.
13. IDENTIFICATION: The Owner reserves the right to require all construction employees to be visually identified by the use of badges. In the event this security measure is implemented, the Owner will issue badges to all authorized employees in conjunction with the Prime Contractors and record their issuance with names, addresses, etc. Termination of employment of the construction employees will require the respective badges to be returned to the Owner for record keeping purposes. All employees must wear the badge on the job site. Employees without badges will not be permitted on the premises.
14. Contractor, subcontractors, and their agents and employees shall not be permitted in existing school facilities, absent receiving prior approval from Owner or Owner's Representative.
15. Contractors shall restrict break areas to those designated by the Owner and Construction Manager.
16. Any persons violating any of the above requirements shall be subject to immediate and permanent exclusion from the District site.

1.3 DELIVERIES

- A. Delivery of materials shall comply with local traffic restrictions.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 GENERAL:

- A. ALL CONTRACTORS SHALL COMPLY WITH PROJECT PHASING PLAN(S) AND THIS SECTION SO EXISTING OPERATIONS ARE NOT AFFECTED.
- B. The existing property is to be maintained in continuous operation during the entire construction period. Work is to be scheduled and conducted by each contractor such that work will not impede vehicular traffic and activities, create potential hazards to existing facilities or persons at the site, or cause dust, odor, noise, or other nuisances. In performing the Work, all contractors shall plan their work to meet operating requirements and schedule any additional requirements outlined in this section to avoid interruption to any Owner operations.
- C. Each Contractor has the option of providing additional temporary facilities that can eliminate a constraint in the Phasing and Milestones provided it is done without cost to the Owner and provided that all of the requirements of these specifications are met. At all times, the Work must be completed in a sequence and fashion approved by the Owner. In the event of any delay in the Work that will impact the relocation or moving of furnishings or equipment, the Owner has the discretion to adjust its move or relocation milestone schedule by up to 30 days. Such action by the Owner shall be issued in writing to the contractor not less than 30 days prior to the anticipated milestone date.
- D. Each contractor shall have on hand and in close proximity to the work, all tools, equipment, and materials, both temporary and permanent, to complete each work category without interruption. Prefabrication of assemblies shall be completed to the greatest degree possible prior to any building system shutdown to minimize the duration of the shutdown.
- E. All cutting and demolition work that creates noise levels in excess of 50 dBA for adjacent occupied areas shall be performed after school hours, holidays or on weekends unless prior permission from the Owner has been obtained.

WORK RESTRICTIONS

F. Utilities:

1. All utility interruptions shall be scheduled and shall be performed after school hours, holidays, or weekends unless prior permission from the Owner has been obtained.
2. Temporary shut-downs to tie in new electrical, data, and telephone services and systems are to be completed outside of normal operating hours and at times that are convenient to the Owner.
3. Existing Utility Interruptions: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary utility services according to requirements indicated:
 - a. Notify Owner not less than thirty days in advance of proposed utility interruptions.
 - b. Do not proceed with utility interruptions without Owner's written permission.
 - c. Coordinate all proposed utility interruptions with Construction Manager.

END OF SECTION

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SECTION 01 21 29 – QUANTITY ALLOWANCES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General 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 materials and equipment including installation 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. See Bid Form(s) for Project allowances.
 - 2. NO CASH allowances for any purpose are included in the Project.
- C. Related Sections include the following:
 - 1. Division 01 Section 012200 "Unit Prices" for procedures for using unit prices, including adjustment of quantity allowances when applicable.
 - 2. Division 01 Section 012600 "Contract Modification Procedures" for procedures for submitting and handling Change Orders.
 - 3. Refer to individual Prime Contract Bid Forms for exact amount of material and unit prices.

1.3 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. Submit time sheets and other documentation to show labor time and cost for installation of allowance items that include installation as part of the allowance.
- D. Coordinate and process submittals for allowance items in same manner as for other portions of the Work.

1.4 UNUSED QUANTITY/MATERIAL ALLOWANCES

- A. Use the quantity/material allowance only as directed by Construction Manager and Architect for Owner's purposes and only by Allowance Adjustments that indicate amounts to be charged to the allowance.

QUANTITY ALLOWANCES

- B. Allowance Adjustments authorizing use of funds from the quantity/material allowance shall include Contractor's related costs and reasonable overhead and profit margins permitted by the General Conditions.
- C. At Project closeout, credit unused amounts remaining in the quantity/material allowance to Owner by Change Order.

1.5 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 Construction Manager, prepare unused material for storage by Owner when it is not economically practical to return the material for credit. If directed by Construction Manager, 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 QUANTITY/MATERIAL ALLOWANCES

- A. **AS INDICATED ON THE INDIVIDUAL PRIME CONTRACT BID FORMS.** Include all allowances listed on the Bid Form and project drawings and specifications in the Base Bid price. Do not adjust allowances for any alternates unless specifically listed in the alternate.

END OF SECTION

SECTION 01 22 00 - UNIT PRICES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General 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 012100 "Allowances" for procedures for using unit prices to adjust quantity allowances.
 - 2. Division 01 Section 012600 "Contract Modification Procedures" for procedures for submitting and handling Change Orders.
 - 3. Division 01 Section 014000 "Quality Requirements" for general testing and inspecting requirements.

1.3 DEFINITIONS

- A. Unit prices, as stated on the Bid Form, are a price per unit of measurement for materials, equipment, 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, taxes overhead, and profit.
- B. Measurement and Payment: The Construction Manager and Architect will verify units of measurement with the Contractor. 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. Specification Sections should be referenced for requirements and materials described under each unit price.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 LIST OF UNIT PRICES

- A. Unit Prices are **AS INDICATED ON THE INDIVIDUAL PRIME CONTRACT BID FORMS**. Include all allowances listed on the Bid Form and project drawings and specifications in the Base Bid price. Do not adjust unit prices for any alternates unless specifically listed in the alternate.

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01 22 00

UNIT PRICES

END OF SECTION

SECTION 01 23 00 - ALTERNATES

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 alternates.

1.3 DEFINITIONS

- A. Alternate: An alternate is an amount proposed by Bidders and stated on the Bid Form for certain work defined in the Bidding Requirements that may be added to or deducted from the Base Bid amount if the Owner decides to accept a corresponding change in either the amount of construction to be completed or in the products, materials, equipment, systems, or installation methods described in the Contract Documents.
 - 1. The cost or credit for each alternate is the net addition to or deduction from the Base Bid to incorporate the Alternate into the Work. No other adjustments are made to the Contract Sum.

1.4 PROCEDURES

- A. Coordination: Modify or adjust affected adjacent Work as necessary to completely and fully integrate Work of the alternate into the Project.
 - 1. Include, as part of each alternate, miscellaneous devices, accessory objects, and similar items incidental to or required for a complete installation whether or not indicated or mentioned as part of alternate.
- B. Notification: Immediately following the award of the Contract, notify each party involved, in writing, of the status of each alternate. Indicate whether alternates have been accepted, rejected, or deferred for later consideration. Include a complete description of negotiated modifications to alternates.
- C. Execute accepted alternates under the same conditions as other Work of the Contract including project schedule, milestones, and phases required for completion of the Work.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION

3.1 SCHEDULE OF ALTERNATES

- A. Alternates are listed on the individual prime contract Bid Forms. Contract Bid Form will identify each Alternate in a format such as: 1, 2, 3, etc.
- B. Specification sections and drawings contain requirements for materials and systems necessary to achieve the Work described under each alternate.

END OF SECTION

SECTION 01 26 00 - CONTRACT MODIFICATION PROCEDURES

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 specifies administrative and procedural requirements for handling and processing Contract modifications.
- B. Related Sections include the following:
 - 1. Division 01 Section 012200 "Unit Prices" for administrative requirements for using unit prices.
 - 2. Division 01 Section 012129 "Quantity Allowances" for administrative requirements for using material allowance unit prices.
 - 3. Division 01 Section 016000 "Product Requirements" for administrative procedures for handling requests for substitutions made after Contract award.

1.3 MINOR CHANGES IN THE WORK

- A. The Architect will issue supplemental instructions authorizing Minor Changes in the Work, not involving adjustment to the Contract Sum or the Contract Time.

1.4 PROPOSAL REQUESTS

- A. Owner-Initiated Proposal Requests: Architect 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. Proposal Requests issued by Architect are for information only. Do not consider them instructions either to stop work in progress or to execute the proposed change.
 - 2. Within time specified in Proposal Request 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 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 unforeseen conditions require modifications to the Contract, Contractor may propose changes by submitting a request for a change to the Architect.

CONTRACT MODIFICATION PROCEDURES

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 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.
5. Comply with requirements in Division 01 Section "Product Requirements" if the proposed change requires substitution of one product or system for product or system specified.

C. Proposal Request Form: For Change Order proposals use AIA forms provided by the Architect or CM.

1.5 ALLOWANCES

A. **CASH** Allowances are **not** included.

B. Material Allowance Adjustment: If a material allowance is included in the work, prior to performing any work included in a material allowance, the Contractor shall review the work with the Construction Manager. **No work shall be performed without prior approval of the Construction Manager.** The Construction Manager will verify and adjust material allowance amounts, based on the quantity of work required and by final measurement of work-in-place. The Contractor shall provide the Construction Manager with the following information:

1. Include installation costs in purchase amount only where indicated as part of the allowance.
2. If requested, prepare explanation and documentation to substantiate distribution of overhead costs and other margins claimed.
3. Submit substantiation of a change in scope of work, if any, claimed in Change Orders related to unit-cost allowances.
4. Owner reserves the right to establish the quantity of work-in-place by independent quantity survey, measure, or count.

1.6 CHANGE ORDER PROCEDURES

A. On Owner's approval of a Proposal Request, the Architect will issue a Change Order for signatures of Owner, Contractor, Construction Manager, and Architect.

1.7 CONSTRUCTION CHANGE DIRECTIVE

A. Construction Change Directive: The Architect may issue a Construction Change Directive on AIA Document. 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

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SECTION 01 29 00 - PAYMENT PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including General Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section specifies administrative and procedural requirements necessary to prepare and process Applications for Payment.
- B. Related Sections include the following:
 - 1. Division 01 Section 012100 "Allowances" for procedural requirements governing the handling and processing of allowances.
 - 2. Division 01 Section 012200 "Unit Prices" for administrative requirements governing the use of unit prices.
 - 3. Division 01 Section 012600 "Contract Modification Procedures" for administrative procedures for handling changes to the Contract.
 - 4. Division 01 Section 013200 "Construction Progress Documentation" for administrative requirements governing the preparation and submittal of the Contractor's construction schedule.
 - 5. Division 01 Section 013125 "Web-Based Project Management System" for administrative requirements for use of system.

1.3 DEFINITIONS

- A. Schedule of Values: A statement furnished by Contractor allocating portions of the Contract Sum to various portions of the Work and used as the basis for reviewing Contractor's Applications for Payment.

1.4 SCHEDULE OF VALUES

- A. Coordination: Coordinate preparation of the Schedule of Values with preparation of Contractor's Construction Schedule.
 - 1. Correlate line items in the Schedule of Values with other required administrative forms and schedules, including the following:
 - a. Application for Payment forms with Continuation Sheets.
 - b. Submittals Schedule.
 - 2. Submit the Schedule of Values to the Architect and Construction Manager at earliest possible date but no later than 14 days after the Notice to Proceed.
- B. Format and Content: Use the 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. Schedule of Values shall be transmitted to the Architect and Construction Manager in .xlsx (Excel) or similar format.

PAYMENT PROCEDURES

2. Identification: Include the following Project identification on the Schedule of Values:
 - a. Project name and location.
 - b. Name of Architect.
 - c. Name of Construction Manager.
 - d. Contractor's name and address.
 - e. Date of submittal.
3. Prepare Schedule of Values to clearly separate the work for each phase of the project scheduled to be occupied by the Owner.
4. Prepare Schedule of Values in compliance with costs loaded CPM schedule unless otherwise approved by Construction Manager.
5. Arrange the Schedule of Values in tabular form with separate columns to indicate the following for each item listed:
 - a. Related Specification Section or Division and in compliance with cost loaded schedule.
 - b. Description of the Work.
 - c. Name of subcontractor.
 - d. Name of manufacturer or fabricator.
 - e. Name of supplier.
 - f. Change Orders (numbers) that affect value.
 - g. Dollar value as percentage of the Contract Sum to nearest one-hundredth percent, adjusted to total 100 percent. Round amounts to nearest whole dollar total shall equal the Contract Sum.
6. Provide a breakdown of the Contract Sum in enough detail to facilitate continued evaluation of Applications for Payment and progress reports. Coordinate with the Project Manual Table of Contents. Provide several line items for principal subcontract amounts, where appropriate.
7. 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. Include evidence of insurance or bonded warehousing if required per Article 9.3.2 of Section 007216, General Conditions.
8. Provide separate line items in the Schedule of Values for initial cost of materials, for each subsequent stage of completion, and for total installed value of that part of the Work.
9. 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.
10. Each item in the Schedule of Values and Applications for Payment shall be complete. Include total cost and proportionate share of general overhead and profit for each item.
 - a. Temporary facilities and other major cost items that are not direct cost of actual work-in-place may be shown either as separate line items in the Schedule of Values or distributed as general overhead expense, at Contractor's option.
 - b. Mechanical, Plumbing, and Electrical Contractors shall include a separate Schedule of Values line item for coordination drawings.
11. Schedule Updating: Update and resubmit the Schedule of Values before the next Application for Payment when Change Orders or Construction Change Directives result in a change in the Contract Sum.

1.5 APPLICATIONS FOR PAYMENT

- A. Each Application for Payment shall be consistent with previous applications and payments as certified by Architect and Construction Manager and paid for by Owner.

PAYMENT PROCEDURES

1. Initial Application for Payment, Application for Payment at time of Substantial Completion, and final Application for Payment involve additional requirements.
- B. Payment Application Times: The date for submission of each application for payment is the 25th day of each month. The period covered by each Application for Payment ends on the FINAL day of each month. Pencil copies of applications for payment shall be submitted in advance for review by Architect, Owner, and Construction Manager no later than the 20th day of each month. All payment applications must comply with project scheduling requirements. These dates are subject to change for the duration of the Project by the Owner prior to the first application for payment.
- C. Payment Application Forms: Use AIA Documents as form for Applications for Payment. Provide certification signature lines for both the Architect and the Construction Manager. Utilize AIA G732-2019 or G732-2009, Construction Manager as Adviser Edition.
- D. Application Preparation: Complete every entry on form. Notarize and execute by a person authorized to sign legal documents on behalf of Contractor. Architect 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. Stored Materials: Include in Application for Payment amounts applied for materials or equipment purchased or fabricated and stored, but not yet installed. Differentiate between items stored on site and items stored off site.
 1. Provide certificate of insurance, evidence of transfer of title to Owner, and consent of surety to payment for stored materials.
 2. Provide supporting documentation that verifies amount requested, such as paid invoices. Match amount requested with amounts indicated on documentation; do not include overhead and profit on stored materials.
 3. Provide summary documentation for stored materials indicating the following:
 - a. Value of materials previously stored and remaining stored as of date of previous Applications for Payment.
 - b. Value of previously stored materials put in place after date of previous Application for Payment and on or before date of current Application for Payment.
 - c. Value of materials stored since date of previous Application for Payment and remaining stored as of date of current Application for Payment.
- F. Transmittal: Contractor shall either be required to:
 1. Submit four (4) signed and notarized original hard copies of each Application for Payment to the Architect by a method ensuring receipt within 24 hours; or
 2. Using a method reviewed and approved by the Owner.
 - a. Should methods such the submission of Payment Applications through digital format be implemented, Contractors shall still provide a copy of the original notarized and signed hard copy of the Payment Application for the Owner's files prior to the release of monthly payments unless waived in writing by the Owner and Construction Manager.
 3. Contractor shall transmit each copy with a transmittal form listing attachments and recording appropriate information about application.

PAYMENT PROCEDURES

- G. Initial Application for Payment: The following minimum administrative actions and submittals must precede the submittal of first Application for Payment:

1. List of subcontractors.
2. Schedule of Values.
3. Contractor's CPM Construction Schedule (preliminary, if not final).
4. Products list.
5. Schedule of unit prices.
6. Submittals 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 pre-construction conferences.
13. Initial settlement survey and damage report if required.
14. Construction Waste Management Plan.
15. Construction IAQ Management Plan (preliminary if not final).

The first payment application will not be processed unless these, and any other items required by the Construction Manager or Architect, are processed.

- H. Application(s) for Payment when reduction in retainage is requested shall be submitted along with AIA Document G707A-1994, "Consent of Surety to Reduction or Partial Release of Retainage" and surety's executed appropriate Power of Attorney.

- I. Application for Payment at Substantial Completion: After issuing 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 Certificates of Partial Substantial Completion issued previously for Owner occupancy of designated portions of the Work.
3. Provide any other documentation including warranties, manuals, or other information requested by Architect or Construction Manager.

- J. Final Payment Application: 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. Certification of completion of final punch list items.
3. Insurance certificates for products and completed operations where required and proof that taxes, fees, and similar obligations were paid.
4. Updated final statement, accounting for final changes to the Contract Sum.
5. AIA Document G706-1994, "Contractor's Affidavit of Payment of Debts and Claims."
6. AIA Document G706A-1994, "Contractor's Affidavit of Release of Liens."
7. AIA Document G707-1994, "Consent of Surety to Final Payment."
8. Evidence that claims have been settled.
9. Final, liquidated damages settlement statement.
10. Any other waivers and releases as required.

PART 2 - PRODUCTS (Not Used)

EXECUTION (Not Used)

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PAYMENT PROCEDURES

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SECTION 01 31 00 - PROJECT MANAGEMENT AND COORDINATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes administrative provisions for coordinating construction operations on Project including, but not limited to, the following:
 - 1. General project coordination procedures.
 - 2. Submittals.
 - 3. Administrative and supervisory personnel.
 - 4. Project meetings.
 - 5. Web Based Project Management System
- B. Contractor and its subcontractors shall participate in coordination requirements.
- C. Related Sections: The following Sections contain requirements that relate to this Section:
 - 1. Section 013200 "Construction Progress Documentation" for preparing and submitting Contractor's construction schedule.
 - 2. Division 01 Section 011500 "Field Engineering" for procedures for field-engineering services, including establishment of benchmarks and control points.
 - 3. Division 01 Section 013117A, "Coordination Drawings" for procedures and requirements of the coordination of installation of products and materials provided by separate primes.
 - 4. Division 01 Section 017300 "Execution" for procedures for coordinating general installation and field engineering services.
 - 5. Division 01 Section 017700 "Closeout Procedures" for coordinating Contract closeout.
 - 6. Section 019113 "General Commissioning Requirements" for coordinating the Work with Owner's Commissioning Authority.

1.3 GENERAL COORDINATION PROCEDURES

- A. Coordination: Coordinate construction operations included in various 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 with other contractors to ensure maximum accessibility for required maintenance, service, and repair.
 - 3. Make adequate provisions to accommodate items scheduled for later installation.
- B. If necessary, prepare memoranda for distribution to each party involved, outlining special procedures required for coordination. Include such items as required notices, reports, and list of attendees at meetings.

PROJECT MANAGEMENT AND COORDINATION

1. Prepare similar memoranda for Owner and separate contractors if coordination of their Work is required.
- C. Administrative Procedures: Coordinate scheduling and timing of required administrative procedures with other construction activities and activities of other contractors 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. Pre-installation conferences.
 7. Construction IAQ Management Plan activities.
 8. Project closeout activities.
- D. Conservation: Coordinate construction activities to ensure that operations are carried out with consideration given to conservation of energy, water, and materials.
1. Salvage materials and equipment involved in performance of, but not actually incorporated into, the Work.
- E. Each Contractor shall:
1. Perform his Work as mandated by the project schedule to maintain the required sequence and the overall progress of the project.
 2. Coordinate Work of his own employees and subcontractors.
 3. Expedite his Work to assure compliance with approved schedules.
 4. Coordinate his Work with that of other Contractors and work by the Owner.
- F. Modifications to the Work made necessary by a Contractor's failure to properly coordinate the Work, shall be made by that Contractor, at no cost to the Owner.
- G. Remove Work installed out of sequence that prohibits a separate Contractor's ability to install Work that is dependent on their prior installation of materials or equipment. No additional compensation or time extension will be considered for the uncovering or removal of the out of sequence Work.
- H. Prime Contractor shall coordinate space requirements and installation of mechanical and electrical work indicated diagrammatically on the Contract Drawings. Follow routing shown for pipes, ducts and conduit as closely as practicable; place runs parallel with line of building. Utilize spaces efficiently to maximize accessibility for other installations, for maintenance and for repairs.
- I. Where availability of space is limited, the Construction Manager and Prime Contractor shall coordinate installation of different components with subcontractors to assure maximum accessibility for required maintenance, service and repair and to meet governing code requirements.
- J. Prime Contractor shall make adequate provisions to accommodate items scheduled for later installation.
- K. Prime Contractor shall, in finished areas except as otherwise indicated, conceal pipes, ducts and wiring within the construction. Coordinate locations of fixtures and outlets with finish elements provided by other Contractors.
- L. Prime Contractor shall verify utility requirement characteristics of operating equipment are compatible with building utilities. Coordinate work of various sections having interdependent responsibilities for installing, connecting to, and placing in service, such equipment.
- M. Prime Contractor shall coordinate Testing and Inspection Services:

PROJECT MANAGEMENT AND COORDINATION

1. Verify required laboratory personnel are present.
 2. Verify tests are made in accord with specified standards.
 3. Review test reports for compliance with specified standards.
 4. Recommend and administer any required retesting.
 5. Submit copies to the Owner, Architect/Engineer, and Construction Manager.
 6. Coordinate with Owner's Geotechnical Engineer for compaction and moisture content testing. Notify Geotechnical Engineer in advance of need for testing in accord with Project Construction Schedule.
 7. Coordinate with Owner's Inspection Agency for concrete, masonry and steel testing and inspection. Notify agency in advance when testing and inspection is required.
- N. Prime Contractor shall coordinate completion and clean-up of Work of separate sections in preparation for Substantial Completion, and for portions of Work designated for Owner's partial occupancy.
- O. Prime Contractor shall, after Owner occupancy of premises, coordinate access to site for correction of defective Work and Work not in accord with Contract Documents, to minimize disruption of Owner's activities.
- 1.4 SUBMITTALS
- A. Coordination Drawings: Prepare Coordination Drawings if limited space availability necessitates maximum utilization of space for efficient installation of different components or if coordination is required for installation of products and materials fabricated by separate entities.
1. Indicate relationship of components shown on separate Shop Drawings.
 2. Indicate required installation sequences.
 3. Refer to Division 23 Section "Basic Mechanical Materials and Methods" and Division 26 Section "Basic Electrical Materials and Methods" for specific Coordination Drawing requirements for mechanical and electrical installations.
- B. Staff Names: Within 7 days of starting construction operations, submit a list of principal staff assignments, including superintendent and other personnel in attendance at Project site. Identify individuals and their duties and responsibilities; list addresses and telephone numbers, including home and office telephone numbers. Provide names, addresses, and telephone numbers of individuals assigned as standbys in the absence of individuals assigned to Project.
1. Post copies of list in Project meeting room, in temporary field office, and by each temporary telephone.
 2. Provide list to Owner, Architect and Construction Manager.
- 1.5 ADMINISTRATIVE AND SUPERVISORY PERSONNEL
- A. General: In addition to Project superintendent, provide other administrative and supervisory personnel as required for proper performance of the Work.
1. Include special personnel required for coordination of operations with other contractors.
- 1.6 PROJECT MEETINGS
- A. Preconstruction Conference: The Owner's representative and Construction Manager will schedule a preconstruction conference before starting construction, at a time convenient to Owner, Architect and Contractor(s) within 15 days after execution of the Agreement. The conference will be held at Project site or another convenient location. The meeting will review responsibilities and personnel assignments and other pertinent issues to the project.

1. Attendees: Authorized representatives of Owner, Architect and their consultants; Prime Contractor(s) and their superintendent; major subcontractors and other Owner pre-approved parties shall attend the conference. All 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. Tentative construction schedule.
 - b. Phasing.
 - c. Critical work sequencing.
 - d. Designation of responsible personnel.
 - e. Procedures for processing field decisions and Change Orders.
 - f. Procedures for processing Applications for Payment.
 - g. Distribution of the Contract Documents.
 - h. Submittal procedures.
 - i. Preparation of Record Documents.
 - j. Use of the premises.
 - k. Responsibility for temporary facilities and controls.
 - l. Parking availability.
 - m. Office, work, and storage areas.
 - n. Equipment deliveries and priorities.
 - o. First aid.
 - p. Security.
 - q. Progress cleaning.
 - r. Working hours.
 - s. Construction Waste Management Plan activities.
 - t. Construction IAQ Management Plan activities.
- B. Pre-installation Conferences: Prime Contractors shall conduct a pre-installation conference at Project site before each construction activity that requires 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 the Architect, Construction Manager and Owner 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 Change Orders.
 - d. Purchases.
 - e. Deliveries.
 - f. Submittals.
 - g. Review of mockups.
 - h. Possible conflicts.
 - i. Compatibility problems.
 - j. Time schedules.
 - k. Weather limitations.
 - l. Manufacturer's written recommendations.
 - m. Warranty requirements.
 - n. Compatibility of materials.
 - o. Acceptability of substrates.
 - p. Temporary facilities and controls.
 - q. Space and access limitations.
 - r. Regulations of authorities having jurisdiction.
 - s. Testing and inspecting requirements.
 - t. Coordination with other work.
 - u. Required performance results.

- v. Protection of construction and personnel.
 - 3. Record significant conference discussions, agreements, and disagreements.
 - 4. 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.
- C. Progress Meetings: Attend progress meetings as scheduled or when notified. Meetings will be generally held every other week unless progress or significant issues arise in the progress or lack thereof of the work.
- 1. Attendees: In addition to representatives of Owner, Architect and CM, Prime Contractor, major subcontractors, 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 conference shall be familiar with Project and authorized to conclude matters relating to the Work.
 - 2. 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.
 - 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) Deliveries.
 - 6) Off-site fabrication.
 - 7) Access.
 - 8) Site utilization.
 - 9) Temporary facilities and controls.
 - 10) Work hours.
 - 11) Hazards and risks.
 - 12) Review of open RFI's.
 - 13) Progress cleaning.
 - 14) Quality and work standards.
 - 15) Change Orders.
 - 16) Documentation of information for payment requests.
 - 17) Construction IAQ Management Plan activities.
 - 18) Site security and safety issues.
 - 3. Reporting: The Construction Manager will distribute minutes of the meeting to each party present and to parties who should have been present. Minutes will include a brief summary, in narrative form, of progress since the previous meeting and report.
 - a. The Contractor shall revise the 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. Contractor shall provide and include a two- week look ahead schedule.
- D. Weekly Superintendent Meetings: Attend weekly superintendent meetings scheduled and chaired by the General Contractor.

1. Attendees: In addition to representatives of the Owner and Construction Manager, each contractor and subcontractor responsible for work in the upcoming two weeks to be represented.
2. Agenda: Review the work planned in the next two weeks and other items that may affect work in the short term including:
 - a. Deliveries.
 - b. Site traffic patterns.
 - c. Subcontractors working at the site.
 - d. Maintenance of erosion and sediment control features.
 - e. Site cleanliness.
 - f. Planned work hours.
 - g. Coordination items .
3. At each coordination meeting, the following shall occur:
 - a. GC shall provide a two-week look ahead schedule from the current overall CPM schedule listing the tasks start, finish, and total float for the next two weeks.
 - b. Prime Contractor superintendent shall be prepared to address the two-week list of tasks and provide their plan for executing each task as per the schedule.
 - c. If any task is not going to be met, contractors shall then provide immediate recovery plan which will be incorporated into the overall schedule update.
4. At each coordination meeting, Prime Contractor is to provide a written two-week look ahead schedule to the Construction Manager for review and comment.
5. The General Contractor shall write meeting minutes for each coordination meeting and distribute them to the Construction Manager for review within two days after the meeting.

1.6 WEB BASED PROJECT MANAGEMENT SYSTEM

- A. Refer to Section 013125 - Web Based Project Management System.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION

SECTION 01 32 00 - CONSTRUCTION PROGRESS DOCUMENTATION

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. The Work under the Contract Documents shall be planned, scheduled, executed, reported, and accomplished using the cost and resource loaded "Critical Path Method" schedule, in calendar days (excluding Saturdays, Sundays, and legal holidays). The provisions of the General Requirements, Division 01, and the directions of the Project Coordinator (General Contractor) are to be followed by the Contractor in scheduling and coordinating construction activities. The scheduling Services of the Project Coordinator are part of its contract with the Owner, but nothing herein relieves the obligations of each Contractor to schedule their own construction activities and nothing herein alters the obligation of each Contractor to resolve all supervision, coordination, and scheduling issues between and among the Sub-Contractors. In addition, the requirements for subordinate coordination responsibilities and scheduling per the Division 01 General Requirements must be followed by all contractors.
- B. General Scheduling Requirements: Any of the scheduling requirements including, but not limited to, the format, content, and complexity can be waived or modified by the sole discretion of the Construction Manager and Owner only. Any modification or waiver by the Construction Manager shall not be grounds for any claim by Contractor against Owner, Construction Manager, or Architect. Project Coordinator (General Contractor) shall submit preliminary and final construction schedule and all schedule updates in electronic format with no restrictions for viewing and analyzing using the same software with which the schedule was created. Electronic format shall be submitted to the Construction Manager and to any Contractor that Construction Manager may direct.
- C. The General Contractor is designated as the Project Coordinator for this Project unless noted otherwise. The Project Coordinator is responsible for coordination of the Work. The Project Coordinator is responsible for making all coordination decisions not mutually agreed to by all affected contractors. Disputes between or among the Project Coordinator and one or more other contractors and disputes in connection with the construction schedule, the furnishing of additional resources to meet the project schedule, job coordination, and all aspects of the means and methods of construction shall be submitted promptly to the Construction Manager for a final construction decision. The Project Coordinator, in connection with all submissions for a final construction decision, provide actual written notice contemporaneously to the Construction Manager. The final construction decision of the Project Coordinator must, at all times, be consistent with content and intent of the Contract Documents and the latest accepted schedule. Should the Owner or Construction Manager determine that, in its sole judgment, substantial interests have been placed at risk by the final construction decision of the Project Coordinator, then the Owner or Construction Manager reserves the right to overrule the final construction decision of the Project Coordinator. The exercise of discretion by the Owner or Construction Manager in this regard shall be unchallengeable, subject only to a determination that the decision constituted an abuse of discretion. In all other instances, the final construction decision of the Project Coordinator will be observed, accepted, and fully followed by all Subcontractors on the project, subject only to the commencement of any litigation between the contractors. The progress of the Work in accordance with the final construction decision of the Project Coordinator shall not be delayed pending litigation between the Prime Contractors. The damage remedy provided in favor of the Project Coordinator shall be exclusive remedy for disputes between the contractors. The contractors, including the Project Coordinator, shall have no right of action against the Owner, Architect, or Construction Manager in connection with such disputes.

- D. This Section includes administrative and procedural requirements for documenting the progress of construction during performance of the Work, including the following:
1. Preliminary Construction Schedule.
 2. Contractor's Construction Schedule.
 3. Submittals Schedule.
 4. Daily construction reports.
 5. Material location reports.
 6. Field condition reports.
 7. Special reports.
- E. Related Sections include the following:
1. Division 01 Section 012900 "Payment Procedures" for submitting the Schedule of Values.
 2. Division 01 Section 013100 "Project Management and Coordination" for submitting and distributing meeting and conference minutes.
 3. Division 01 Section 013300 "Submittal Procedures" for submitting schedules and reports.
 4. Division 01 Section 014000 "Quality Requirements" for submitting a schedule of tests and inspections.
 5. Division 01 Section 017700 "Closeout Procedures" for submitting photographic negatives as Project Record Documents at Project closeout.

1.3 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 and include shop drawing preparation, work activities, equipment testing, and training and any other actions required for the prosecution of the work.
1. Critical activities are activities on the critical path. They must start and finish on the planned early start and finish times.
 2. Predecessor activity is an activity that must be completed before a given activity can be started.
 3. Successor activity is an activity that follows another activity in the network.
- B. Cost Loading: The allocation of the Schedule of Values for the completion of an activity as scheduled. The sum of costs for all activities must equal the total Contract Sum, unless otherwise approved by Architect.
- C. 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.
- D. Critical Path: The longest continuous chain of activities through the network schedule that establishes the minimum overall Project duration and contains the lowest float value.
- E. Event: The starting or ending point of an activity.
- F. Float: The measure of leeway in starting and completing an activity.
1. Float time belongs to Owner and shall only be assigned with Owner's representative approval.
 2. Free float is the amount of time an activity can be delayed without adversely affecting the early start of the following activity.
 3. Total float is the measure of leeway in starting or completing an activity without adversely affecting the planned Project completion date.
- G. Fragnet: A partial or fragmentary network that breaks down activities into smaller activities for greater detail.
- H. Major Area: A story of construction, a separate building, or a similar significant construction element.

- I. Milestone: A key or critical point in time for reference or measurement.
- J. Network Diagram: A graphic diagram of a network schedule, showing activities and activity relationships.
- K. Resource Loading: The allocation of manpower and equipment necessary for the completion of an activity as scheduled.

1.4 SUBMITTALS

- A. Qualification Data: For firms and persons specified in "Quality Assurance" Article and in-house scheduling personnel to demonstrate their capabilities and experience. Include lists of completed projects with project names and addresses, names, and addresses of architects and owners, and other information specified.
- B. Submittals Schedule: Submit seven copies of schedule. Arrange the following information in a tabular format:
 - 1. Scheduled date for first submittal.
 - 2. Specification Section number and title.
 - 3. Submittal category (action or informational).
 - 4. Name of subcontractor.
 - 5. Description of the Work covered.
 - 6. Scheduled date for Architect's and all consultants and agencies final release or approval.
- C. Preliminary Construction Schedule: Submit seven (7) opaque copies and one (1) electronic copy.
 - 1. Approval of cost-loaded preliminary construction schedule will not constitute approval of Schedule of Values for cost-loaded activities. The electronic copy is to be provided with no restrictions for viewing and analyzing using the same software with which the schedule was created.
- D. Preliminary Construction Schedule Network Diagram: Submit seven (7) opaque copies, large enough to show entire network for entire construction period. Show logic ties for activities.
- E. Final Construction Schedule: Submit seven (7) printed copies of the initial schedule large enough to show entire schedule for entire construction period. Provide electronic copy if requested.
 - 1. Submit an electronic copy of schedule electronically and labeled to comply with requirements for submittals. Include type of schedule (initial or updated) and date on label. The electronic copy is to be provided with no restrictions for viewing and analyzing using the same software with which the schedule was created.
- F. Final Construction Schedule Reports: Submit three (3) copies of each of the following computer-generated reports with the Final Construction Schedule. Format for each activity in reports shall contain activity number, activity description, cost and resource loading, 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 all activities sorted by Project Phase, Project Area, Sub-Contractor, and then early start date. Provide a duration, cost, and total float value for each activity.
 - 2. Logic Report: List of preceding and succeeding activities for all activities, sorted in ascending order by activity number and then early start date, or actual start date if known.
- G. Daily Construction Reports: Submit two copies at weekly intervals.
- H. Material Location Reports: Submit two copies at weekly intervals.
- I. Field Condition Reports: Submit two copies at time of discovery of differing conditions.

- J. Special Reports: Submit two copies at time of unusual event.

1.5 QUALITY ASSURANCE

- A. Scheduler's Qualifications: An experienced specialist in CPM scheduling and reporting, with capability of producing CPM reports and diagrams within 24 hours of Construction Manager's request.
- B. Prescheduling Conference: Conduct conference at Project site to comply with requirements in Division 01 Section 013100 "Project Management and Coordination." Review methods and procedures related to the Preliminary Construction Schedule and Contractor's Construction 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 constraints including phasing, work stages, area separations, interim milestones, and partial Owner occupancy.
 - 4. Review delivery dates for Owner-furnished products.
 - 5. Review schedule for work of Owner's separate contracts.
 - 6. Review time required for review of 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

- A. Coordinate preparation and processing of schedules and reports with performance of construction activities and with scheduling and reporting of separate contractors.
- B. Coordinate Contractor's Construction Schedule with the Schedule of Values, list of subcontracts, Submittals Schedule, progress reports, payment requests, and other required schedules and reports.
 - 1. Secure time commitments for performing critical elements of the Work from parties involved.
 - 2. Coordinate each construction activity in the network with other activities and schedule them in proper sequence.

PART 2 - PRODUCTS

2.1 SUBMITTALS SCHEDULE

- A. Preparation: Submit a schedule of submittals arranged in chronological order by dates required by construction schedule. Include time required for review, resubmittal, ordering, manufacturing, fabrication, and delivery when establishing dates.
 - 1. Coordinate Submittals Schedule with list of subcontracts, the Schedule of Values, and Contractor's Construction Schedule.
 - 2. Initial Submittal: Submit concurrently with preliminary schedule. Include submittals required during the first 90 days of construction. List those required to maintain orderly progress of the Work and those required early because of long lead-time for manufacture or fabrication.
 - a. Show submittals on the Preliminary Construction Schedule, instead of tabulating them separately.

3. Final Submittal: Submit concurrently with the first complete submittal of Contractor's Construction Schedule.

2.2 CONTRACTOR'S CONSTRUCTION SCHEDULE, GENERAL

- A. Procedures: Comply with procedures contained in AGC's "Construction Planning & Scheduling."
- B. Time Frame: Extend schedule from date established for the Notice to Proceed to date of Final Completion.
 1. Contract completion date shall not be changed by submission of a schedule that shows an early or late completion date, unless specifically authorized by Change Order.
- C. Each activity on the network shall have indicated for it the following:
 1. A single duration, no longer than 20 days (i.e., the single best estimate of the expected elapsed time considering the scope of work involved in the activity) expressed in working days. Normal holidays and weather delays shall be included. One critical path shall be shown for the schedule.
 2. An activity identification number will be assigned to each activity. The identification number will be in a format acceptable to Project Coordinator.
 3. A brief description of the activity will be included. If this description is not definitive, a separate listing of each activity and a descriptive narrative may be required.
 4. Each activity shall be cost loaded to indicate the total estimated budget of the activity. No activity budget shall exceed \$50,000. Material and/or equipment costs to be paid as stored material shall be listed separately. In addition, activities shall be cost-loaded as requested by Owner's representative for payment purposes.
 5. Procurement Activities: Include procurement process activities for long lead items and major items, requiring a cycle of more than 40 calendar days, as separate activities in schedule. Procurement cycle activities include, but are not limited to, submittals, approvals, purchasing, fabrication, and delivery.
 6. Submittal Review Time: Include review and resubmittal times indicated in Division 01 Section 013300 "Submittal Procedures" in schedule. Coordinate submittal review times in Contractor's Construction Schedule with Submittals Schedule.
 7. Substantial Completion: Indicate completion in advance of date established for Substantial Completion and allow time for Architect and Owner's administrative procedures necessary for certification of Substantial Completion.
 8. Each activity (except for procurement activities) shall be man-hour loaded with the estimated man-hours to be expended on each activity.
- 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. Phasing: Arrange list of activities on schedule by phase.
 2. Work under More Than One Contract: Include separate activities for each contract.
 3. Work by Owner: Include separate activities for each portion of the Work performed by Owner.
 4. Products Ordered in Advance: Include a separate activity for each product. Include delivery date indicated in Division 01 Section 011100 "Summary of the Project." Delivery dates indicated stipulate the earliest possible delivery date.
 5. Owner-Furnished Products: Include a separate activity for each product. Include delivery date indicated in Division 01 Section 011100 "Summary of the Project". Delivery dates indicated stipulate the earliest possible delivery date.
 6. 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.

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- f. Provisions for future construction.
 - g. Seasonal variations.
 - h. Environmental control.
- 7. Work Stages: For each Phase of the Work as described on the drawings, indicate stages of construction for each major portion of the Work including, but not limited to, the following:
 - a. Subcontract awards
 - b. Submittals
 - c. Purchases
 - d. Mockups
 - e. Fabrication
 - f. Sample testing
 - g. Deliveries
 - h. Installation
 - i. Shop and Field Tests and inspections
 - j. Changes in traffic patterns
 - k. Moving and occupancy timeframes
 - l. Adjusting
 - m. Curing
 - n. Startup and placement into final use and operation
 - o. Punchlist
- 8. Area Separations: Identify each major area of construction for each Phase of the Work. Indicate where each construction activity within a major area must be sequenced or integrated with other construction activities to provide for the following phase completion and contract milestone dates listed in the contract documents:
 - a. Foundation completion.
 - b. Structural completion.
 - c. Permanent space enclosure.
 - d. Completion of mechanical installation.
 - e. Completion of electrical installation.
 - f. Substantial Completion.
- E. Milestones and Phases: Include milestones and phases indicated in the Contract Documents in schedule including, but not limited to, the Notice to Proceed, Individual Phase Completion(s), Substantial Completion, Final Completion, and the following interim milestones:
 - 1. All project milestones and phases listed in the Contract Documents.
- F. Cost Correlations for Progress Payments: Provide cost loading of the Preliminary and Final schedule as follows:
 - 1. Each activity on the construction schedule shall be allocated a dollar value in accordance with 2.2.C.4, above. Each activity's assigned cost shall consist of labor, equipment, and materials costs, and a pro rata contribution of overhead and profit. The sum of activities costs shall be equal to the total Contract Price. In submitting cost data Contractor certifies that the costs are not unbalanced and that the value assigned to each activity represents Contractor's estimate of the actual costs of performing that activity.
 - 2. The accepted schedule of values shall represent a fair, reasonable, and equitable dollar cost allocation for each activity on Contractor's construction schedule.
 - 3. If it is determined that the cost data does not meet the requirements for a balanced bid breakdown in the opinion of Owner's representative, Contractor will present documentation substantiating the cost allocation. Cost allocations shall be considered unbalanced if an activity on the construction schedule has been assigned a disproportionate allocation of direct costs, overhead and profit.

- G. Contract Modifications: For each proposed contract modification and concurrent with its submission, prepare a time-impact analysis using fragnets to demonstrate the effect of the proposed change on the overall project schedule.
- H. Computer Software: Prepare schedules using one of the following programs. Microsoft Project is not an acceptable option.
 - 1. Primavera Contractor with cost loaded options.
 - 2. Primavera Suretrak
 - 3. Primavera Project Planner
 - 4. Primavera Expedition

2.3 PRELIMINARY CPM CONSTRUCTION SCHEDULE

- A. Bar-Chart Schedule: Submit preliminary horizontal bar-chart-type construction schedule within thirty (30) calendar 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. Provide construction activities for first 90 days of construction. Include costs for each activity.

2.4 FINAL CPM CONSTRUCTION SCHEDULE

- A. CPM Schedule: Prepare Contractor's Construction Schedule using a computerized, cost- and resource-loaded, 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 forty-five (45) calendar days after date established for the Notice to Proceed.
 - 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, regardless of Architect's approval of the schedule.
 - 2. Conduct educational workshops to train and inform key Project personnel, including each contractor's 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. Include list of nonworking days and holidays incorporated into the schedule.
- B. CPM Schedule Preparation: Prepare a list of all activities required to complete the Work. Using the preliminary network diagram, prepare a network diagram to identify the critical paths.
 - 1. Activities: Indicate the estimated time duration, sequence requirements, and relationship of each activity in relation to other activities. Within each Phase, include activities and durations for 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 commissioning.
 2. Critical Path Activities: Identify critical path activities, including those for any interim Phase 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.
- C. Initial Issue of Schedule: Prepare initial network diagram from a list of straight "early start-total float" sort. Identify critical activities. Prepare tabulated reports showing the following:
1. Contractor or subcontractor and the Work or activity.
 2. Description of activity.
 3. Principal 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. Dollar value of activity (coordinated with the Schedule of Values).
- D. Schedule Updating: Concurrent with making revisions to schedule, prepare tabulated reports and electronic copies on a monthly basis 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.

2.5 FIELD REPORTS

- A. Daily Construction Reports: Each contractor shall prepare 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.
 7. Accidents.
 8. Meetings and significant decisions.
 9. An account of work performed on the project.
 10. Stoppages, delays, shortages, and unusual events.
 11. Meter readings and similar recordings.
 12. Site visits or inspections by authorities having jurisdiction.
 13. Orders and requests of authorities having jurisdiction.
 14. Change Orders received and implemented.
 15. Construction or Work 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. Material Location Reports: At monthly intervals, 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.
- C. Field Condition Reports: Immediately on discovery of a difference between field conditions and the Contract Documents, prepare a detailed report. Submit a request for information to Architect with copy to Construction Manager on CSI Form 13.2A or other form approved by Architect. Include a detailed description of the differing conditions, together with recommendations for changing the Contract Documents.

2.6 SPECIAL REPORTS

- A. General: Submit special reports directly to Owner 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, 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 Owner in advance when these events are known or predictable.

PART 3 - EXECUTION

3.1 FIELD REPORTS

- A. Contractor is to submit Daily Construction Reports on a daily basis to the Owner's Representative. Failures to maintain timely or complete reports may result in partial withholding of monthly payment applications.

3.2 CONTRACTOR'S CONSTRUCTION SCHEDULE

- A. Requirements for the General Contractor as the Project Coordinator. As Project Coordinator, the Contractor for General Construction shall:
 - 1. Engage a scheduling consultant to perform, for and on behalf of the Contractor, the Contractor's duties, and responsibilities as Project Coordinator, including those specifically set forth below. The scheduling consultant shall have a minimum of five (5) years prior experience in the design, preparation, publication, and revision of PCM network schedules, including scheduling experience on multiple subcontracts, multiple phase construction projects. The Contractor shall submit the name, credentials, and experience of its proposed scheduling consultant to the Owner, Architect, and Construction Manager for approval within five (5) days of being awarded the Contract. The Contractor; (a) shall not terminate the engagement of any approved scheduling consultant without at least thirty (30) days prior written notice to the Owner, Architect, and Construction Manager, and then only after submission and approval of a replacement scheduling consultant in accordance with the provisions of this paragraph; and (b) shall not engage any scheduling consultant as to whom the Owner, Architect, and Construction Manager, at any time, make reasonable objection and shall promptly replace such scheduling consultant with another approved in accordance with the provisions of this paragraph.
 - 2. If the Contractor demonstrates to the satisfaction of the Construction Manager that it employs a person with experience and qualifications in the design, preparation, publication, and revision of CPM network schedules, then, upon receipt of written approval from the Owner, the Contractor may assign such employee as the scheduling consultant described herein;
 - 3. Attend and chair meetings at least every two weeks during construction with all separate contractors, the Owner, the Architect, and Construction Manager to review progress and to plan

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- and coordinate the activities of each separate contractor with the Work of the Contractor and of the Owner;
4. Advise the owner, Architect, and Construction Manager of delays or potential delays.
 5. Formulate and recommend to the Owner, Architect, and Construction Manager plans, including a revised Project construction schedule, to prevent, minimize, or recover from delays or potential delays.
 6. Make recommendations to the Owner, Architect, and Construction Manager concerning whether requests for extensions of time should be granted and the effect such extensions would have on the Project construction schedule.
 7. Revise the Project construction schedule to reflect extensions of time granted by the Owner.
 8. Resolve objections made by other contractors and make adjustments to the schedule that are mutually agreeable to the Owner.
 9. Prepare monthly schedule updates comparing the actual progress of all Work with the scheduled progress.
- B. Scheduling requirements for all Contractors other than the Project Coordinator (General Contractor). All Contractors shall:
1. Within fourteen (14) days after the Notice to Proceed for Construction, prepare and submit to the Project Coordinator and Construction Manager a preliminary construction schedule in a form compatible with the requirements herein. Such construction schedule shall include the Work of the Contractor, show by appropriate notation whenever the commencement, progress, or completion of an activity depends upon the commencement, progress, or completion of another activity (including activities of separate contractors) and show the timely and orderly completion of all Work in accordance with the requirements of the Contract Documents, including such interim "milestone" dates as are identified therein. If not accepted, the construction schedule shall be promptly revised by the Contractor in accordance with the recommendations of the Owner, the Architect, Construction Manager, and the Project Coordinator and resubmitted for acceptance and incorporation into the project construction schedule prepared by the project coordinator;
 2. Within thirty (30) days of the Notice to Proceed prepare and submit to the Project Coordinator and Construction Manager a final construction schedule in a form compatible with the requirements herein for the project Coordinator's use in submitting the final Construction Schedule.
 3. Shall cooperate and participate with the Project Coordinator and the other contractors in connection with all the activities described in this section.
 4. Shall notify the Project Coordinator, the Owner, and the Construction Manager in writing if the Contractor objects to the Project construction schedule, or any revision thereto, stating its objection and the reasons therefor within two (2) days after the Contractor's receipt of the Project Construction schedule or any updates or revisions to which objection is made. In the absence of such timely notice, any such objection shall be deemed waived and released and the Contractor shall comply with the Project construction schedule or revision thereto. If a timely objection is made, the Contractor and the Project Coordinator shall agree to a resolution of the objection within ten (10) days. In the absence of such agreement, the Owner may, in addition to any other rights and remedies under the Contract Documents, appoint the Construction Manager or an independent scheduling consultant to resolve the objection, whose decision shall be final and binding upon the Contractor and the Project Coordinator. All cost and expense incurred by the Owner to resolve such objection shall be charged to and borne in equal shares by the Contractor, the Project Coordinator, and their respective Sureties.
 5. Shall not be entitled to claim any damages against the Owner, nor any adjustment in the Contract Time or the Contract Sum in connection with the Project construction schedule, any revision thereto, or any resolution of an objection to either the Project construction schedule or a revision thereto; and
 6. Acknowledges and agrees that the Owner has no duty or responsibility toward the Contractor to cause the Project Coordinator to perform or to competently perform its duties and that the Contractor's sole claim in the event of any failure of the Project Coordinator to perform or to competently perform its duties shall be against the Project Coordinator.
 7. Should any Contractor intend or plan to complete the Work, or any portion thereof, earlier than any applicable Completion Date or the Contract Time, Contractor shall give timely and reasonable written notice of this fact to the other Contractors, Project Coordinator and Construction Manager. Project Coordinator shall have the discretion to agree to or reject such early completion plan by Contractor, subject to the rights of Contractor to litigation between contractors. The Project

Coordinator shall have no duty or obligation to agree to or to cooperate with Contractor regarding any early completion plan or proposal by Contractor and shall not be liable for any damages of Contractor because of the rejection by Project Coordinator of said plan. Earlier completion of any portion of the work shall be promoted wherever feasible and all Contractors must cooperate and accelerate towards earlier completion of any portion of the work unless such work affects the quality of work as determined by the Construction Manager. All Contractors shall cooperate and accelerate work as determined by Project Coordinator unless quality of work is affected as determined by the Construction Manager. No claims for acceleration to complete early or to meet project schedule will be considered.

- C. Contractor's Construction Schedule Updating: At monthly intervals or as requested by Owner's representative, 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. Provide an electronic copy of each monthly schedule update. Provide an indication of the total project float in the schedule on a monthly basis.
 - 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 Actual Completion percentage for each activity.
 - 4. Items not ordered by the contractor in a timely manner for incorporation into the Work will not be considered for claims by the Contractor for additional time or costs.
- D. Distribution: Distribute copies of approved schedule to Architect, Construction Manager, Owner, separate contractors, testing and inspecting agencies, and other parties identified by Contractors with a need-to-know schedule responsibility. Provide an electronic copy to the Construction Manager and distribute to other contractors at the direction of the Construction Manager.
 - 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.
- E. The Critical Path Method type construction schedule will be used to monitor job progress and as a means to make monthly payments to Contractors. Contractor will be responsible for providing all information concerning the sequencing, logic and durations of all activities as well as providing the initial logic network diagram. Once the schedule is accepted, Contractor will be responsible for providing monthly update information on logic, percent complete, actual start and finish dates, and duration changes. Contractor will not be required to produce the computerized printout of the schedule updates. This will be performed by Project Coordinator using information provided by Contractors. Copies of the updated schedule are to be distributed at the progress meetings by the Project Coordinator.
- F. From each Contractor's initial schedule submittal and from information received at the monthly schedule update meetings, computerized and dated tabular schedule reports, or updated network diagrams, or bar charts will be produced by Project Coordinator which will be reviewed by each Contractor for accuracy and integrity. It shall at all times remain each Contractor's responsibility to schedule and direct his forces in a manner that will allow for the completion of the work within the contractual period.
- G. It should be clearly understood that the initial schedule and all update information must be provided by each Contractor and that this information is a representation of the best efforts of each Contractor and his subcontractors as to how they envision the work to be accomplished. Similarly, all progress information to be provided by and through each Contractor must be an accurate representation of his or his subcontractor or supplier's actual performance. The schedule shall at all times remain an accurate reflection of each Contractor's actual or projected sequencing of work. Once accepted, adherence to the established CPM schedule shall be obligatory upon each Contractor and his subcontractors for the work under this Contract. Owner may require each Contractor to revise the schedule if, in his judgment, the schedule does not accurately reflect the actual execution of the work, or is in violation of any provision of this CPM scheduling specification,

and each Contractor shall revise the schedule as often as is necessary during the course of performance of the work without additional cost to Owner.

- H. The work shall be started on the date indicated in the Notice to Proceed and shall be executed with such progress as may be required to prevent delay to other Contractors or to the general completion of the project. The work shall be executed at such times and in or on such parts of the project, and with such forces, material, and equipment, as to assure completion of the work in the time established by the Contract. Additionally, each Contractor shall, at all times, schedule and direct his work so that it provides an orderly progression of the work to completion within the specified Contract Time.
- I. Each Contractor agrees that whenever it becomes apparent from the current monthly CPM Schedule update that delays to the critical path have resulted and these delays are through no fault of Owner or Owner's representatives, and hence, that the Contract completion date will not be met, or when so directed by Owner's representative or Project Coordinator he will take some or all of the following actions at no additional cost to Owner.
 - 1. Increase construction manpower in such quantities and crafts as will substantially eliminate the backlog of work.
 - 2. Increase the number of working hours per shift; shifts per working day, or days per week; the amount of construction equipment; etc., or any combination of the foregoing to substantially eliminate the backlog of work.
 - 3. Schedule activities to achieve maximum practical concurrence of accomplishment of activities and comply with the revised schedule.
 - 4. Contractor shall submit for reviewing a written statement of the steps he intends to take to remove or arrest the delay to the schedule. If Contractor fails to submit a written statement of the steps he intends to take or fails to take such steps as required by the Contract, Owner may direct the level of effort in manpower (trades), equipment, and work schedule (overtime) to remove or arrest the delay to the critical path in the accepted schedule, and Contractor shall promptly provide such level of effort at no additional cost to Owner. In addition, should schedule delays persist, Contractor's surety will be asked to attend meetings to update the schedule.
- J. In the event the Owner determines that the performance of the Work, the work of separate contractors or of the Owner has not progressed or reached the level of completion required by the Contract Documents, or the Project construction schedule, the Owner shall have the right to order the Contractor to take corrective measures necessary to expedite the progress of construction, including, without limitation: (1) working additional shifts or overtime; (2) supplying additional manpower, equipment, and facilities; (3) engaging a scheduling consultant to make recommendations concerning the corrective measures to be taken, with the cost and expense of such engagement to be borne by the Contractor, the separate contractors and their respective Sureties in such proportions as the Architect and Construction Manager may, in their sole discretion, determine to be just; and (4) other similar measures. Such measures shall continue until the progress of construction complies with the required level of completion. The Owner's right to require such measures shall not impose upon the Owner any duty or obligation to the Contractor, its Surety, or any other party. Except as specifically provided in this paragraph, the Contractor shall not be entitled to an adjustment in the Contract Time or the Contract Sum in connection with such measures required by the Owner. If the Contractor (its agents, subcontractors, suppliers, or vendors) has not caused or contributed to the failure of construction to progress or reach the required level of completion, then the Contractor shall be entitled to a Change order for an amount not to exceed the reasonable additional labor cost of any overtime or shift work directed by the Owner under this paragraph. If the Contractor (its agents, subcontractors, suppliers, or vendors) has caused or contributed to the failure of construction to progress or reach the required level of completion, then the Contractor and its Surety shall be liable to the Owner for any and all costs and expenses incurred by the Owner due to any measures directed by the Owner under this paragraph, including the cost of any overtime or shift work performed by the Owner or by separate contractors. The Owner may exercise the rights furnished to the Owner under this paragraph as frequently as the Owner deems necessary to ensure that the progress of construction will comply with the required level of completion. If the Contractor fails to perform its duties as the Project Coordinator adequately or to the Owner's satisfaction, the Owner may, in addition to its other rights and remedies, appoint a substitute Project Coordinator who shall act in the place and with the authority of the original Project Coordinator. In that event, the Owner may, in its sole discretion, appoint an independent consultant as the substitute Project Coordinator. The cost and expense incurred by the Owner to engage such substitute Project Coordinator shall be charged to and borne by the Contractor and its Surety.

- K. The Contractor's failure to cooperate and participate with the Owner, the Architect, the Construction Manager, and separate contractors in the development and review of construction schedules and updates as provided in this section shall be a material breach of its obligations, entitling the Owner to exercise all rights and remedies under the Contract Documents and applicable law. In no event shall any revision to any construction schedule constitute the basis for an adjustment in the Contract Time or the Contract Sum unless such adjustment is agreed to by the Owner and authorized pursuant to Change Order.
- L. The Project Schedule is to be used by the Contractors as a guide and all contractors and sub-contractors shall be responsible to perform work to ensure that the Project is completed by the Project Contract completion date(s) and all milestone dates established in the Contract Drawings are met. Any claims for additional costs associated with completion of the Work within the required Contract time frames will not be considered. The Contractor and all Sub-contractors who feel extra time, in any form such as shift work, overtime, and premium time, is necessary to meet Contract requirements regardless of trade should include these costs in their bids. All Contractors must recognize that although their work might not require shift, overtime, or premium timework for completion within the stipulated time frame, it may be required in order to allow other Contractors to complete within the time frame. Contractors must allow for these overtime requirements and include the costs necessary to allow the other Contractors to complete within the specified time. Failure to recognize the extra costs in his bid shall not relieve the Contractor from utilizing shift, overtime, or premium time work in performance of his Contract; all costs associated with meeting the time frames indicated in the construction schedules shall be included in the Contract Price. Construction Manager, Architect, and Owner reserve the right to withhold processing of any monthly payment applications from any contractor if schedule compliance is not being strictly adhered to. Such payment may be withheld until the Contractor makes corrective action to comply with project schedule.
- M. Contractor Approval and Certification. Approval by Contractor of the preliminary CPM Construction Schedule, the final CPM schedule, and schedule updates shall be evidence of the Contractor's agreement that the proposed schedule or schedule revision to the Construction Schedule is a true and accurate representation of his plan to complete the Work, including all Change Orders that are in Contractor's possession as of the foregoing date, that the schedule or schedule revision fully complies with the requirements of the Contract Documents, that he shall prosecute the Work in accordance with this schedule revision, subject to any change therein which is implemented in accordance with the Contract Documents, and that he has met and coordinated with and obtained the acceptance or approval of said schedule revision by all other parties that are affected thereby.

3.3 NETWORK REQUIREMENTS

- A. The CPM Schedule shall show the order and interdependence of activities and the sequence in which the work is to be accomplished as planned by Contractor. The basic concept of the network analysis diagram is to show how the start of a given activity is dependent on the completion of preceding activities and its completion restricts the start of succeeding activities. A time scaled precedence format will be followed. The detailed network diagram will be time scaled showing a continuous flow from left to right.
- B. The CPM schedule shall include a weather calendar that contains non-working days in addition to weekend and holidays to account for anticipated inclement weather days beyond those normally anticipated for the project area.
- C. Failure to include in the CPM schedule any element of Work required under the performance of this Contract shall not excuse Contractor from completing all Work required within the applicable completion time, notwithstanding Owner's network review.
- D. A CPM schedule which shows a completion of any portion of the Work prior to the contractual completion date may be accepted but in no event shall be acceptable as a basis for a claim for delay or cost reimbursement against Owner or its representatives by Contractor. The period of time between the Contractor's baseline accepted CPM schedules projected completion dates and the contractual stipulated completion dates, if any, will be treated as Project Float. The Owner's right to utilize Project Float is as provided in paragraph 3.8.
- E. If a review of the submitted CPM Schedule indicates a work plan which will not complete the work within the time requirements stated in the Contract, it shall be the responsibility of Contractor to revise the CPM Schedule

as required and resubmit it until it is acceptable. Failure by Contractor to submit an acceptable schedule may, at Owner's sole discretion, justify the withholding of any partial payment(s) otherwise due under the Contract.

- F. Acceptance of the schedule shall not constitute a representation by Owner that the work can be completed as shown on the schedule.
- G. The schedules prepared by the Contractor and by the Project Coordinator, if any, under this Article shall be in the form of a CPM arrow network diagram, preferably organized by IJ nodes" and shall include: (1) a shop drawing and submittal schedule noting the relevant submittal, approval, order, fabrication, and delivery durations; (2) integration of the shop drawing and submittal schedule with the installation activity logic in order to determine the effect of delivery on installation of any items of work; (3) the planned progressions of construction work showing the activities and duration of the work of each contract phase and clearly noting any interim milestone dates; (4) the appropriate restraints in order to clearly identify the interrelationships of work and crew and trade flow; (5) logic (CPM arrow network) diagrams summarized into a summary bar chart format that is capable of displaying current progress of all Work; (6) a computerized mathematical analysis of the CPM logic with each monthly schedule responsibility, activity duration, early (target) start date, early (target) finish date, late start date, late finish date, work tasks critical to completion within the Contract Time and any interim milestone dates; and (7) crew sizes and planned labor hours for each activity shown on the schedule. The Contractor shall deliver to the Owner, upon Construction Manager's request and in the format requested by the Construction Manager, copies of all electronic files (including all schedule logic, restraints, and all other electronic data and information used to create and maintain the schedule that the Owner may request) that comprise or relate to such schedules, including the original project schedule, all schedule updates, any recovery schedules, and any schedule revisions.
- H. The Project Schedule shall be submitted by the Contractor for all work. All schedule and work items must be in conformance with the project schedule requirements listed in the project manual including any phasing or other milestones provided. The Project Coordinator shall incorporate all contractors' items of work and issue project schedule. Upon written approval of the schedule by the Contractor and Construction Manager and review by the Architect, it shall with respect to time, become the essence of the Contract and the Contractor who does not comply may be held in violation of Article 8, of the General Conditions, "Delays and Extension of Time". The project schedule may be changed or revised only with the written consent of the Construction Manager, Owner, and Architect. If the Contractor does not comply with all the scheduling requirements of the Contract and time lines, the Owner reserves the right to deduct \$800.00 from the Contract amount for each day that Contractor does not comply and Owner may also proceed with enforcing other requirements of the Contract including Article 2.5 of the General Conditions of the Contract. No payment applications will be processed without an approved project schedule accepted by all contractors.
- I. Any preparation, review, enforcement, and updating of the project schedule do not make Owner, Construction Manager, or Architect liable to Contractor for time, cost overruns, or schedule changes which are required to maintain project contract completion date and all milestone dates established in the Project Manual.
- J. Contractor is responsible for determining the sequence and logic of activities, the time estimates of the detailed construction activities, and the means, methods, techniques, and procedures to be employed with regard to his portion of the Work. The Construction Schedule shall represent Contractor's best judgment of how he shall prosecute the Work in compliance with the requirements of the Contract Documents. Contractor shall ensure that the Construction Schedule is current and accurate and is properly and timely monitored, updated, and revised as Project conditions and the Contract Documents may require, and as may be directed by Project Coordinator.
- K. Contractor shall consult with his major Subcontractors relating to the preparation of his construction plan and Construction Schedule. Major Subcontractors shall receive copies of those portions of Contractor's Construction Schedule that relate to their Work and shall be continually advised of any updates or revisions to the Construction Schedule as the Work progresses. When Contractor submits his Construction Schedule to the Project Coordinator or makes any proposed updates or revisions to such Schedule, it shall be concluded by Construction Manager, Owner, and Project Coordinator that Contractor has consulted with and has the concurrence of his major Subcontractors. Contractor shall be solely responsible for ensuring that all Subcontractors comply with the requirements of the Construction Schedule for their portions of the Work.

- L. The Completion and Milestone Dates set forth in the Contract Documents represent only the major items of Work and may include interface dates with the construction activities of others. Completion and Milestone Dates are Contract requirements and are of the essence to the Contract Documents and to the coordination of the Work by the Contractor. Completion and Milestone Dates represent the latest allowable completion time for those portions of the Work to which each Date relates. The Dates are not intended to be a complete listing of all Work under the Contract Documents or of all interfaces with work performed by the Contractors or others. The Contractor shall determine the time requirements for all such interfaces and shall be responsible for planning, scheduling, and coordinating the Work in order to complete in accordance with those requirements.

3.4 SCHEDULE UPDATES

- A. A monthly Schedule Update Meeting will be held one (1) week prior to the progress meeting at the construction site to review and update the CPM Schedule. Project Coordinator and major subcontractors will attend the Schedule Update Meeting. Actual progress of the previous month will be recorded, and scheduling of future work activities will be reviewed. The duration of activities and their logical connections may be revised as needed. Decisions made at these meetings and agreed to by all parties are binding with the exception that no contractual completion dates will be modified without formal written requests and acceptance as specified herein. Contractor must provide the following information for each update at a minimum:
 - 1. Actual start and finish dates for all completed activities.
 - 2. Actual start dates for all started but incomplete activities and estimated remaining durations.
- B. Provide a Monthly Progress Status Report, which provides a narrative explanation of progress identified in the revised construction schedule. An electronic copy of each monthly schedule update is to be provided to the Construction Manager at the end of each month. The electronic copy is to be provided with no restrictions for viewing and analyzing using the same software with which the schedule was created. The monthly status report shall indicate the following items:
 - 1. Summarize revisions made to the Construction Schedule since the previous submittal.
 - 2. Work completed during the reporting period.
 - 3. A printed copy of the entire project schedule including the updated early and late dates, activity durations, predecessors and successors and a list of any logic and duration changes executed during the update period.
 - 4. Work anticipated to be started during the next period, including those activities already in progress.
 - 5. Problem areas, anticipated delays, and their impact on the schedule.
 - 6. Corrective action recommended and its effect.
 - 7. The effect of changes on schedules of other prime Contractors.
 - 8. Updated Tabulation of Contract Time and a printed copy of the project critical path.
 - 9. An evaluation of the overall status of the schedule for the job.
- C. Application for Payment: Contractor understands and agrees that the submission and acceptance of progress updates and the receipt of progress reports are an integral part and basic element of the Applications for Payment; and that Contractor shall not be entitled to any progress payment under the Contract Documents until Contractor has fully complied with the requirements of this Section.
- D. Review by the Construction Manager and Owner of Contractor's Construction Schedule, or any revisions or updates thereto, are advisory only and shall not relieve Contractor of the responsibility for accomplishing each portion of the Work within each and every applicable Completion Date. Omissions and errors in the approved or accepted Construction Schedule, or any revisions or updates, shall not excuse performance which is not in compliance with the Contract Documents. Review by the Construction Manager does not make Owner, Architect, or Construction Manager liable to Contractor for time or cost overruns flowing from such omissions or errors.

3.5 RECOVERY SCHEDULES

- A. Should the updated Construction Schedule, at any time during Contractor's performance, show, in the sole opinion of Construction Manager that any Contractor is ten (10) or more days behind schedule for any Completion Date, Contractor shall within seven (7) days after notice by Construction Manager, prepare a recovery schedule at no cost to Owner explaining and displaying how Contractor intends to reschedule his Work in order to regain compliance with the Construction Schedule during the immediate subsequent pay period.
1. If Contractor believes that all of the time can be recovered during the subsequent pay period, Contractor shall be permitted to prepare a recovery schedule as set forth below. However, if Contractor believes it shall take more than thirty (30) days to recover all of the lost time, he shall prepare and submit a request for revision to the Construction Schedule and comply with all of the requirements of a schedule revision as set forth.
 2. Contractor shall prepare and submit to the Construction Manager a limited duration recovery schedule, incorporating best available information from Subcontractors and others which shall permit return to Construction Schedule at the earliest possible time. Contractor shall prepare a recovery schedule to the same level of detail as the Construction Schedule for a maximum duration of one month. The recovery schedule shall be prepared in coordination with other Contractors.
 3. Within two (2) days after submission by the Project Coordinator of a recovery schedule, Contractor shall participate in a conference with the Project Coordinator and Construction Manager to review and evaluate the recovery schedule. Within two (2) days of the conference, Contractor shall submit the revisions necessitated by the review for Project Coordinator's and Construction Manager's review and acceptance. Contractor shall use the accepted recovery schedule as his plan for returning to the Construction Schedule.
 4. Each Contractor shall confer continuously with the Project Coordinator to assess the effectiveness of the recovery schedule. As a result of this conference:
 - a. If Construction Manager determines Contractor is still behind schedule, Project Coordinator shall direct Contractor to prepare a schedule revision with the assistance of the Project Coordinator and comply with all of the requirements of a schedule revision as stated herein and the other requirements of the Contract Documents; provided, however, that nothing herein shall limit in any way the rights and remedies of Owner and Project Coordinator as provided elsewhere in the Contract Documents; or
 - b. If Project Coordinator determines Contractor has successfully complied with provisions of the recovery schedule, Project Coordinator shall direct Contractor to return to the use of the accepted Construction Schedule.
 5. Nothing herein alters the obligation of Project Coordinator to resolve coordination and scheduling issues in dispute between and among Contractors.

3.6 CAUSES FOR EXTENSIONS OF TIME

- A. The Contract Times will be adjusted only for causes specified in this Contract. In the event any Contractor requests an extension of Contract Time, he shall furnish justification and supporting evidence per requests specified elsewhere in these Contract Documents. Each Contractor acknowledges and agrees that actual delays in activities, which, according to the CPM schedule, do not affect any contract completion date shown by the critical path in the network, do not have any effect on the Contract Time, and therefore will not be the basis for a change in Contract Time.
- B. Contract Time extensions for weather delays will be based only on the following criteria:
1. General Requirements: Even though a cause of delay meets any, or all, of the conditions stated herein, it shall in all cases be presumed that no extension, or further extension, of time is due unless Contractor shall demonstrate that the delay is justified and had an impact to the critical path of the updated CPM schedule for the delay period. To this end, Contractor shall maintain adequate records supporting any claim for an extension of time and shall submit such records, including a revised

- CPM schedule showing the impact of the delay, with the claim. Claims due to weather shall be submitted on a monthly basis and within five days after the end of the previous month of such delay.
2. The Owner will determine Contractor's entitlement to an extension of the Contract Time. Daily records, maintained by the Construction Manager, shall be the official source for weather data related to precipitation and temperature. A time extension of no more than one day will be granted for one day of lost work, regardless of the number of allowable reasons for lost time. The period of any extension of time shall be only for the portion of the contract actually delayed due to the abnormal weather conditions. Any extension of Contract Time allowed shall be considered non-compensable and have no impact on Contract Price.
 3. Temperatures above or below the statistical mean are not considered to be justification for an extension of Contract Time.
 4. Time extensions for snow shall be based on above normal snow for the project area and only based on direct impact to the CPM schedule. Only snow days with greater than 3" of snow cover will be considered in the request for time extension.
 5. Time extensions for precipitation shall be based on above normal precipitation for the project area and only based on direct impact to CPM schedule. Only workdays with precipitation greater than one-tenth inch (0.10") shall be considered in the request for time extension.

3.7 ADJUSTMENT BY OWNER

- A. From time to time it may be necessary for the Contract schedule and/or Contract Times to be adjusted by Owner due to the effects of job conditions, acts or omissions of other Contractors not directly associated with this contract, act of God, technical difficulties, unavoidable delays on the part of Owner or his representatives, and other unforeseeable conditions which may indicate schedule adjustments and/or an extension of the Contract Time. Under such conditions, Owner shall direct Contractor to reschedule the work to reflect the changed conditions, and Contractor shall revise his schedule accordingly. Only the Owner in writing shall grant schedule extensions affecting the Contract Time. No additional compensation shall be made to Contractor for such schedule changes except for unavoidable overall Contract delays, in which case Contractor shall take all possible action to minimize any time extension. It is specifically noted that available Project Total or Free Float in the CPM schedule may be used by the Owner and his representative to accommodate any adjustments in time, therefore eliminating the need for a time extension.

3.8 FLOAT TIME

- A. Without obligation to extend the overall completion date or any intermediate completion dates set out in the CPM network, Owner may initiate changes to the Contract work that absorb float time. Owner-initiated changes that affect the critical path on the CPM network shall be the sole grounds for extending (or shortening) said completion dates. Contractor initiated changes that encroach on the total float time identified in the CPM network may be accomplished with Owner's concurrence. Such changes, however, shall give way to Owner-initiated changes competing for the same total float time.

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SECTION 01 33 00 - SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for submitting Shop Drawings, Product Data, Samples, and other miscellaneous submittals.
- B. Related Sections include the following:
 - 1. Division 01 Section 012900 "Payment Procedures" for submitting Applications for Payment and the schedule of values.
 - 2. Division 01 Section 013100 "Project Management and Coordination" for submitting Coordination Drawings.
 - 3. Division 01 Section 013200 "Construction Progress Documentation" for submitting schedules and reports, including Contractor's construction schedule.
 - 4. Division 01 Section 013125 "Web Based Project Management System" for making shop drawing submissions.
 - 5. Division 01 Section 014000 "Quality Requirements" for submitting test and inspection reports and Delegated-Design Submittals and for erecting mockups.
 - 6. Division 01 Section 017700 "Closeout Procedures" for submitting warranties Project Record Documents and operation and maintenance manuals.
 - 7. Division 01 Section 017900 "Demonstration and Training" for submitting video recordings of demonstration of equipment and training of Owner's personnel.
 - 8. Division 01 Section 019113 "General Commissioning Requirements" for additional information and procedures.

1.3 DEFINITIONS

- A. Action Submittals: Written and graphic information that requires Architect's responsive action.
- B. Informational Submittals: Written information that does not require Architect's approval. Submittals may be rejected for not complying with requirements.

1.4 SUBMITTAL PROCEDURES

- A. 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 requires sequential activity.
 - 2. Coordinate transmittal of different types of submittals for related parts of the Work so processing will not be delayed because of need to review submittals concurrently for coordination.

SUBMITTAL PROCEDURES

- a. Architect reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.
- B. Submittals Schedule: Comply with requirements in Division 01 Section 013200 "Construction Progress Documentation" for list of submittals and time requirements for scheduled performance of related construction activities.
- C. Processing Time: Allow enough time for submittal review, including time for resubmittals, as follows. Time for review shall commence on Architect's receipt of submittal.
 1. Initial Review: Allow 15 days for initial review of each submittal. Allow additional time if processing must be delayed to permit coordination with subsequent submittals. Architect will advise Contractor when a submittal being processed must be delayed for coordination.
 2. Concurrent Review: Where concurrent review of submittals by Architect's consultants, Owner, or other parties is required, allow 21 days for initial review of each submittal.
 3. Direct Transmittal to Consultant: Where the Contract Documents indicate that submittals may be transmitted directly to Architect's consultants, provide duplicate copy of transmittal to Architect. Submittal will be returned to Architect before being returned to Contractor.
 4. If intermediate submittal is necessary, process it in same manner as initial submittal.
 5. Allow 15 days for processing each resubmittal.
 6. No extension of the Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing.
- D. Identification: Place a permanent label or title block on each submittal for identification.
 1. Indicate name of firm or entity that prepared each submittal on label or title block.
 2. Provide a space approximately on label or beside title block to record Contractor's review and approval markings and action taken by Architect.
 3. Include the following information on label for processing and recording action taken:
 - a. Project name.
 - b. Date.
 - c. Name and address of Architect.
 - d. Name and address of Contractor.
 - e. Name and address of subcontractor.
 - f. Name and address of supplier.
 - g. Name of manufacturer.
 - h. Unique identifier, including revision number.
 - i. Number and title of appropriate Specification Section.
 - j. Drawing number and detail references, as appropriate.
 4. The Contractors shall utilize a 9+ character submittal identification numbering system in the following manner:
 - a. The first six digits are to be the applicable Specification Section number.
 - b. The next three digits shall be the numbers (001-999) to sequentially number each initial separate item submitted. The last character shall be a letter (A-Z) indicating the submission or resubmission version, i.e. "A"= initial submission, "B" = 2nd submission, "C" = 3rd submission, etc. A typical submittal number would be as follows:

033000-008-B – (xxxx)

033000 = Specification Section for Concrete
008 = the eighth submittal under this specification section
B = the second submission (first resubmission) of that particular shop drawing
xxxx = Brief description of items in submittal
 5. All submittals shall be clearly identified using the numbering system described above. Submittals items received without appropriate identification will be returned without review. The Contractor on

SUBMITTAL PROCEDURES

the individual items to be reviewed and on the transmittal cover sheet under which the submittals are shipped shall provide the submittal number.

- E. Deviations: Highlight, encircle, or otherwise identify deviations from the Contract Documents on submittals.
- F. Additional Copies: Unless additional copies are required for final submittal, and unless Architect observes noncompliance with provisions of the Contract Documents, initial submittal may serve as final submittal.
 - 1. Submit one copy of submittal to concurrent reviewer in addition to specified number of copies to Architect.
 - 2. Additional copies submitted for maintenance manuals will be marked with action taken and will be returned.
 - 3. Contractor shall provide two paper copies of all final submittals as directed by CM. Otherwise, all submittals shall be provided electronically.
- G. Transmittal: Package each submittal individually and appropriately for transmittal and handling. Transmit each submittal using a transmittal form. Architect will discard submittals received from sources other than Contractor. Architect will return any submittal not submitted individually as rejected.
 - 1. On an attached separate sheet, prepared on Contractor's letterhead, record relevant information, requests for data, revisions other than those requested by Architect on previous submittals, and deviations from requirements of the Contract Documents, including minor variations and limitations. Include the same label information as the related submittal.
 - 2. Include Contractor's certification stating that information submitted complies with requirements of the Contract Documents.
 - 3. Transmittal Form: Provide locations on form for the following information:
 - a. Project name.
 - b. Date.
 - c. Destination (To:).
 - d. Source (From:).
 - e. Names of subcontractor, manufacturer, and supplier.
 - f. Category and type of submittal.
 - g. Submittal purpose and description.
 - h. Submittal and transmittal distribution record.
 - i. Remarks.
 - j. Signature of transmitter.
- H. Distribution: Furnish copies of final submittals to manufacturers, subcontractors, suppliers, fabricators, installers, and authorities having jurisdiction, and others as necessary for performance of construction activities. Show distribution on transmittal forms.
- I. No portion of the Work requiring shop drawings, samples or product data specified shall be started nor shall any material be fabricated or installed prior to approval of such item. Fabrication performed, materials purchased, or on-site construction accomplished which does not conform to approved shop drawings, submittals, or data shall be solely at the contractor risk and expense. The owner shall not be liable for any expenses or delay claims due to corrections or remedies required to accomplish conformity with this requirement.
- J. Use for Construction: Use only final submittals with mark indicating action taken by Architect in connection with construction.

PART 2 - PRODUCTS

2.1 ACTION SUBMITTALS

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- A. General: Prepare and submit Action Submittals required by individual Specification Sections.
1. Number of Copies: Submit copies of each submittal, as follows, unless otherwise indicated:
 - a. Initial Submittal: Submit a preliminary single copy of each submittal where selection of options, color, pattern, texture, or similar characteristics is required. Architect will return submittal with options selected.
 - b. Final Submittal: Submit not less than 5 copies unless copies are required for operation and maintenance manuals. Submit additional copies where required for operation and maintenance manuals. Architect will retain 3 copies; plus at least one additional copy if reviewed by a consultant, the remainder will be returned. Mark up and retain one returned copy as a Project Record Document.
- B. 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 printed data are not suitable 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 written recommendations.
 - b. Manufacturer's product specifications.
 - c. Manufacturer's installation instructions.
 - d. Standard color charts.
 - e. Manufacturer's catalog cuts.
 - f. Wiring diagrams showing factory-installed wiring.
 - g. Printed performance curves.
 - h. Operational range diagrams.
 - i. Mill reports.
 - j. Standard product operating and maintenance manuals.
 - k. Compliance with recognized trade association standards.
 - l. Compliance with recognized testing agency standards.
 - m. Application of testing agency labels and seals.
 - n. Notation of coordination requirements.
- C. 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: Include the following information, as applicable:
 - a. Dimensions.
 - b. Identification of products.
 - c. Fabrication and installation drawings.
 - d. Roughing-in and setting diagrams.
 - e. Wiring diagrams showing field-installed wiring, including power, signal, and control wiring.
 - f. Shopwork manufacturing instructions.
 - g. Templates and patterns.
 - h. Schedules.
 - i. Design calculations.
 - j. Compliance with specified standards.
 - k. Notation of coordination requirements.
 - l. Notation of dimensions established by field measurement.
 2. Wiring Diagrams: Differentiate between manufacturer-installed and field-installed wiring.
 3. Sheet Size: Except for templates, patterns, and similar full-size drawings, submit Shop Drawings on sheets at least 8-1/2 by 11 inches but no larger than 30 by 42 inches.
 4. Number of Copies: Submit not less than 5 blue or black line prints of each submittal, unless prints are required for operation and maintenance manuals. Submit additional prints where prints are

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required for operation and maintenance manuals. Architect will retain 3 copies; plus at least one additional copy if reviewed by a consultant, remainder will be returned. Mark up and retain one returned print as a Project Record Drawing.

- D. Coordination Drawings: Comply with requirements in Division 01 Section 013100 "Project Management and Coordination."
- E. Electronic Submittals and Shop Drawings: All submittals and shop drawings may be submitted in electronic format through the project web-based management software. Specific requirements for reducing the quantity of paper copies will be reviewed at the pre-construction meeting.
 - 1. Submit one copy electronically. Refer to Section 013125, Article 2.3, Paragraph A.1.
 - 2. For Shop Drawings in format larger than 11 inches by 17 inches, Contractor shall provide one hard (printed) copy to the Architect along with the required electronic material.
- F. Samples: Prepare physical units of materials or products, including the following:
 - 1. Comply with requirements in Division 01 Section 014100 "Quality Requirements" for mockups.
 - 2. 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.
 - 3. Samples for Verification: Submit full-size units or Samples of size indicated, prepared from the same material to be used for the Work, cured and finished in manner specified, and physically identical with the 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.
 - 4. Preparation: Mount, display, or package Samples in manner specified to facilitate review of qualities indicated. Prepare Samples to match Architect's sample where so indicated. Attach label on unexposed side that includes the following:
 - a. Generic description of Sample.
 - b. Product name or name of manufacturer.
 - c. Sample source.
 - 5. Additional Information: On an attached separate sheet, prepared on Contractor's letterhead, provide the following:
 - a. Size limitations.
 - b. Compliance with recognized standards.
 - c. Availability.
 - d. Delivery time.
 - 6. Submit Samples for review of kind, color, pattern, and texture for a final check of these characteristics with other elements and for a comparison of these characteristics between final submittal and actual component as delivered and installed.
 - a. If variation in color, pattern, texture, or other characteristic is inherent in the product represented by a Sample, submit at least three (3) sets of paired units that show approximate limits of the variations.
 - b. Refer to individual Specification Sections for requirements for Samples that illustrate workmanship, fabrication techniques, and details of assembly, connections, operation, and similar construction characteristics.
 - 7. Number of Samples for Initial Selection: Submit two full set of available choices where color, pattern, texture, or similar characteristics are required to be selected from manufacturer's product line. Architect will return submittal with options selected.
 - 8. Number of Samples for Verification: Submit three sets of Samples. Architect will retain two Sample sets; remainder will be returned.

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- a. Submit a single Sample where assembly details, workmanship, fabrication techniques, connections, operation, and other similar characteristics are to be demonstrated.
 - 9. 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.
 - G. Product Schedule or List: Prepare a written summary indicating types of products required for the Work and their intended location. Include the following information in tabular form:
 - 1. Type of product. Include unique identifier for each product.
 - 2. Number and name of room or space.
 - 3. Location within room or space.
 - H. Delegated-Design Submittal: Comply with requirements in Division 01 Section 014000 "Quality Requirements."
 - I. Contractor's Construction Schedule: Comply with requirements in Division 01 Section 013200 "Construction Progress Documentation" for Construction Manager's action.
 - J. Submittals Schedule: Comply with requirements in Division 01 Section 013200 "Construction Progress Documentation."
 - K. Application for Payment: Comply with requirements in Division 01 Section 012900 "Payment Procedures."
 - L. Schedule of Values: Comply with requirements in Division 01 Section 012900 "Payment Procedures."
 - M. 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. Use CSI Form 1.5A. Include the following information in tabular form:
 - 1. Name, address, and telephone number 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.
 - N. Steel Products Procurement Act: Submit certifications including, but not limited to, invoices, bills of lading, mill certifications, and other certification required to verify compliance with the Act.
- 2.2 INFORMATIONAL SUBMITTALS
- A. General: Prepare and submit Informational Submittals required by other Specification Sections.
 - 1. Number of Copies: Submit two copies of each submittal, unless otherwise indicated. Architect will not return copies.
 - 2. Certificates and Certifications: Provide a notarized statement that includes signature of entity responsible for preparing certification. An officer shall sign certificates and certifications or other individual authorized to sign documents on behalf of that entity.
 - 3. Test and Inspection Reports: Comply with requirements in Division 01 Section 014000 "Quality Requirements."

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- B. Contractor's Construction Schedule: Comply with requirements in Division 01 Section 013200 "Construction Progress Documentation."
- C. Qualification Data: Prepare written information that demonstrates capabilities and experience of firm or person. Include lists of completed projects with project names and addresses, names, and addresses of Architects and owners, and other information specified.
- D. Product Certificates: Prepare written statements on manufacturer's letterhead certifying that product complies with requirements.
- E. Welding Certificates: Prepare written certification that welding procedures and personnel comply with requirements. Submit record of Welding Procedure Specification (WPS) and Procedure Qualification Record (PQR) on AWS forms. Include names of firms and personnel certified.
- F. Installer Certificates: Prepare written statements on manufacturer's letterhead certifying that Installer complies with requirements and, where required, is authorized for this specific Project.
- G. Manufacturer Certificates: Prepare written statements on manufacturer's letterhead certifying that manufacturer complies with requirements. Include evidence of manufacturing experience where required.
- H. Material Certificates: Prepare written statements on manufacturer's letterhead certifying that material complies with requirements.
- I. Material Test Reports: Prepare reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting test results of material for compliance with requirements.
- J. Preconstruction Test Reports: Prepare 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.
- K. Compatibility Test Reports: Prepare 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 primers and substrate preparation needed for adhesion.
- L. Field Test Reports: Prepare reports written by a qualified testing agency, on testing agency's standard form, 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.
- M. Product Test Reports: Prepare written reports indicating current product produced by manufacturer complies with requirements. 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.
- N. Research/Evaluation Reports: Prepare 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:
 - 1. Name of evaluation organization.
 - 2. Date of evaluation.
 - 3. Time period when report is in effect.
 - 4. Product and manufacturers' names.
 - 5. Description of product.
 - 6. Test procedures and results.
 - 7. Limitations of use.
- O. Maintenance Data: Prepare written and graphic instructions and procedures for operation and normal maintenance of products and equipment. Comply with requirements in Division 01 Section 017700 "Closeout Procedures."

SUBMITTAL PROCEDURES

- P. Design Data: Prepare written and graphic information including, but not limited to, performance and design criteria, list of applicable codes and regulations, and calculations. Include list of assumptions and other performance and design criteria and a summary of loads. Include load diagrams if applicable. Provide name and version of software, if any, used for calculations. Include page numbers.
- Q. Manufacturer's Instructions: Prepare written or published information that documents manufacturer's recommendations, guidelines, and procedures for installing or operating a product or equipment. Include name of product and name, address, and telephone number of manufacturers. Include the following, as applicable:
1. Preparation of substrates.
 2. Required substrate tolerances.
 3. Sequence of installation or erection.
 4. Required installation tolerances.
 5. Required adjustments.
 6. Recommendations for cleaning and protection.
- R. Manufacturer's Field Reports: Prepare written information documenting factory-authorized service representative's tests and inspections. Include the following, as applicable:
1. Name, address, and telephone number of factory-authorized service representative making report.
 2. Statement on condition of substrates and their acceptability for installation of product.
 3. Statement that products at Project site comply with requirements.
 4. Summary of installation procedures being followed, whether they comply with requirements and, if not, what corrective action was taken.
 5. Results of operational and other tests and a statement of whether observed performance complies with requirements.
 6. Statement whether conditions, products, and installation will affect warranty.
 7. Other required items indicated in individual Specification Sections.

PART 3 - EXECUTION

3.1 CONTRACTOR'S REVIEW

- A. REVIEW EACH SUBMITTAL AND CHECK FOR COMPLIANCE WITH THE CONTRACT DOCUMENTS. NOTE CORRECTIONS AND FIELD DIMENSIONS. MARK WITH APPROVAL STAMP BEFORE SUBMITTING TO ARCHITECT.

Approval Stamp: Stamp each submittal with a uniform, approval stamp. Include Project name and location, submittal number, Specification Section title and number, 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.

3.2 ARCHITECT'S ACTION

- A. GENERAL: ARCHITECT WILL NOT REVIEW SUBMITTALS THAT DO NOT BEAR CONTRACTOR'S APPROVAL STAMP AND WILL RETURN THEM AT THE CONTRACTORS EXPENSE WITHOUT ACTION.

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- B. Action Submittals: Architect will review each submittal, make marks to indicate corrections or modifications required, and return it. Architect will stamp each submittal with an action stamp and will mark stamp appropriately to indicate action taken.
1. NO EXCEPTION TAKEN – This action is assigned when the information provided requires no additional notes or comments on the submittal and the information provided is in general conformance with the plans and specifications. The contractor may release the equipment or material for purchase or fabrication.
 2. MAKE CORRECTIONS NOTED – This action is assigned when the information provided requires only minor notes or comments be added or corrections made to the submittal and the information provided is in general conformance with the plans and specifications. For clarification, this action may include additional comments from the architect indicating the extent of changes required.
 3. REJECTED – This action indicates the information provided does not meet the intent of the design or is not specified on the drawings and/or specifications. Product substitutions made in this manner will be rejected. The contractor shall NOT release any equipment or material for purchase or fabrication. The Architect will return the contents of the submittal at the contractor's expense. The contractor shall resubmit the entire contents of the submittal.
 4. SUBMIT SPECIFIED ITEM – This action assigned indicates that information is missing from the shop drawing submittal. The contractor should NOT release the equipment or material for purchase or fabrication.
 5. REVISE AND RESUBMIT – This action indicates the information provided is incomplete or notes and comments are extensive enough to require a resubmittal of some or all of the information. This resubmittal is to address all comments, omissions, misrepresentations, and insufficient data that were received by the Architect. The contractor may, at their option, release the equipment or material for purchase or fabrication or resubmit the information requested for additional action. All notations and comments must be incorporated into the final product.
- C. Informational Submittals: Architect will review each submittal and will not return it or will reject and return it if it does not comply with requirements.
- D. Submittals not required by the Contract Documents will not be reviewed and may be discarded. The Architect is not required to notify the sender of such action.

3.3 ELECTRONIC DOCUMENTS

- A. Architect and Construction Manager will make the drawings available to the Prime Contractor after the execution of the Owner-Contractor Agreement (DOCUMENTS ARE NOT AVAILABLE DURING BIDDING).
- B. Files will be furnished in their original software format and are not available in any other format. The Architect does not guarantee software/hardware compatibility. The Contractor will be charged a handling fee of \$100 plus \$25.00 per drawing sheet, payable to the Architect, this cost is non-refundable.
- C. The documents provided were prepared by Architect or their consultants as instruments of service to the Owner for this Project. The Owner and the Architect do not endorse or warrant the documents as suitable for any other purpose. These documents are furnished without warranties or guarantees (express, implied, or statutory), for the accuracy, reliability, and completeness. These files may vary from the documents used during bidding and do not include modifications issued by addenda or bulletins. If there are conflicts between the electronic drawings and the bid set, the bid set shall govern.
- D. In order to obtain any documents in electronic format the Prime Contractor shall submit to the Architect a letter on company letterhead which includes the following information:
1. At this time, our company is requesting the following drawings in electronic format:
 - a. (List each drawing by the sheet no. as it appears in the Contract Documents).

2. In making this request for documents in electronic format our company hereby agrees to the following conditions:
 - a. We agree to remove any and all identification of the Architect and consultants from title block prior to the use of the documents.
 - b. We agree to add our title block or the title block of our supplier prior to reproducing the documents either electronically or in printed form.
 - c. We agree that prior to reproducing any drawing, we will verify the information and dimensions contained in the documents and assume the liability for the accuracy as if the drawings had been totally prepared by our own company.
 - d. We agree that the use of these electronic files is specifically for this Project, these files will not be reproduced for any other project, and the Architect has not waived the Architect's copyright or other reserved rights.
 - e. We agree to release and indemnify the Owner, Architect, and Construction Manager and their consultants against any losses or claims as a result of any errors or omissions in the electronic data.
 - f. This letter shall be signed by person authorized to agree to the terms of the letter and shall be accompanied by a check to cover the charge per drawing file listed above. Shipping and postage is not included in the amount stated above and will be an additional charge.
 - g. Electronic files are not construction documents. Differences may exist between the electronic files and corresponding hard-copy construction documents. The Architect and Owner make no representation regarding the accuracy or completeness of the electronic files. In the event that a conflict is discovered between the hard copy construction documents and the electronic files, hard-copy construction documents shall govern. The Contractor is responsible for determining if any conflict exists.
 - h. The use of the electronic files does not relieve the Contractor of fully complying with the Contract Documents or the need to check, confirm, and coordinate all dimensions and details, take field measurements, verify field conditions, and coordinate your work with that of other contractors for the Project.
 - i. Under no circumstances shall delivery of the electronic files be deemed a sale. The Owner and Architect make no warranties, either express or implied, of merchantability and fitness for any particular purpose. In no event shall we be liable for any loss of profit or any consequential damages as a result of your use of these electronic files.

END OF SECTION

SECTION 01 35 16 - ALTERATION PROJECT PROCEDURES

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 SECTION INCLUDES:

- A. Products and installation for patching and extending Work.
- B. Transition and adjustments.
- C. Repair of damaged surfaces, finishes, and cleaning.

1.3 RELATED SECTIONS

- A. Division 01 Section 013100 "Project Management and Coordination" for work sequence, owner occupancy, and maintenance of utility services.
- B. Division 01 Section 015000 "Temporary Facilities and Controls" for temporary enclosures, protection of installed work, and cleaning during construction.
- C. Division 01 Section 017329 "Cutting and Patching" for cutting and patching.
- D. Division 01 Section 017700 "Closeout Procedures" for final cleaning.

1.4 PHASING

- A. When a Project includes a phased schedule in order to accommodate the Owner's continued occupancy and use of the building, a continuity of building services shall be maintained including the following:
 - 1. Fire Alarm system
 - 2. Telephone and Communications
 - 3. Intercom and Clock System
 - 4. Heating
 - 5. HVAC Controls
 - 6. Plumbing
 - 7. Security
 - 8. Data
 - 9. Power
 - 10. Any Life Safety System such as egress, pathways, exit signage, sprinklers, smoke detectors, and emergency generator.
- B. As existing systems are demolished or new systems are installed, temporary switches, piping, valves, controls, communication lines, and any related accessories and supports shall be installed in order to maintain continuity of services to the Owner-occupied areas of the building.

- C. As each area is prepared for occupancy the Prime Contractor will be required to provide all necessary temporary devices and controls to operate any Life Safety System such as sprinklers, smoke detectors, and emergency generator which is required for occupancy.

PART 2 - PRODUCTS

2.1 PRODUCTS AND INSTALLATION FOR PATCHING AND EXTENDING WORK

- A. New Materials: As specified in product sections; match existing Products and work for patching and extending work.
- B. Type and Quality of Existing Products: Determine by inspecting and testing Products where necessary, referring to existing Work as a standard.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify that demolition is complete, and areas are ready for installation of new Work.
- B. Beginning of restoration Work means acceptance of existing conditions.

3.2 PREPARATION

- A. Cut, move, or remove items as necessary for access to alterations and renovation Work. Replace and restore at completion.
- B. Remove unsuitable material not marked for salvage, such as rotted wood, corroded metals, and deteriorated masonry and concrete. Replace materials as specified for finished Work.
- C. Remove debris and abandoned items from area and from concealed spaces.
- D. Prepare surface and remove surface finishes to provide for proper installation of new work and finishes.
- E. Close openings in exterior surfaces to protect existing work and salvage items indicated from weather and extremes of temperature and humidity. Insulate duct work and piping to prevent condensation in exposed areas.

3.3 INSTALLATION

- A. Coordinate work of alterations and renovations to expedite completion sequentially and to accommodate Owner occupancy.
- B. Remove, cut, and patch Work in a manner to minimize damage and to provide a means of restoring products and finishes to original condition in accordance with Section 017329 "Cutting and Patching".
- C. Refinish visible existing surfaces to remain in renovated rooms and spaces, to specified condition for each material, with a neat transition to adjacent finishes in accordance with Section 017329 "Cutting and Patching".

- D. Project, Designated areas, Rooms and spaces, and Finishes: Complete including operational mechanical and electrical work.
- E. In addition to specified replacement of equipment and fixtures restore existing plumbing, heating, ventilation, air conditioning, electrical, and other systems to full operational condition.
- F. Re-cover and refinish Work that exposes mechanical and electrical work exposed accidentally during the work.
- G. Install Products as specified in individual sections.

3.4 TRANSITIONS

- A. Where new Work abuts or aligns with existing, perform a smooth and even transition. Patch Work to match existing adjacent Work in texture and appearance.
- B. When finished surfaces are cut so that a smooth transition with new Work is not possible, terminate existing surface along a straight line at a natural line of division and make recommendation to Architect/Engineer.

3.5 ADJUSTMENTS

- A. Where removal of partitions or walls results in adjacent spaces becoming one, rework floors, walls, and ceilings to a smooth plane without breaks, steps, or bulkheads.
- B. Where a change of plane of 1/4 inch or more occurs, submit recommendation for providing a smooth transition for Architect/Engineer review.
- C. Trim existing doors as necessary to clear new floor finish. Refinish trim as required.
- D. Fit work at penetrations of surfaces as specified in Section 017329 "Cutting and Patching".

3.6 REPAIR OF DAMAGED SURFACES

- A. Patch or replace portions of existing surfaces which are damaged, lifted, discolored, or showing other imperfections.
- B. Repair substrate prior to patching finish.

3.7 FINISHES

- A. Finish surfaces as specified in individual Product sections.
- B. Finish patches to produce uniform finish and texture over entire area. When finish cannot be matched, refinish entire surface to nearest intersections.

3.8 CLEANING

- A. In addition to cleaning specified in Sections 015000 "Temporary Facilities and Controls" and 017700 "Closeout Procedures", clean Owner-occupied areas of the building affected by construction activities.

END OF SECTION

SECTION 01 40 00 - QUALITY REQUIREMENTS

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 quality assurance and quality control.
- B. Testing and inspecting 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. Specific quality-control requirements for individual construction activities are specified in the Sections that specify those activities. Requirements in those Sections may also cover production of standard products.
 - 2. Specified tests, inspections, and related actions do not limit Contractor's quality-control procedures that facilitate compliance with the Contract Document requirements.
 - 3. Requirements for Contractor to provide quality-control services required by Architect, Owner, or authorities having jurisdiction are not limited by provisions of this Section.
- C. Related Sections include the following:
 - 1. Division 01 Section 017329 "Cutting and Patching" for repair and restoration of construction disturbed by testing and inspecting activities.
 - 2. Divisions 02 through 33 Sections for specific test and inspection requirements.

1.3 DEFINITIONS

- A. Quality-Assurance Services: Activities, actions, and procedures performed before and during execution of the Work to guard against defects and deficiencies and ensure that proposed construction complies with requirements.
- B. Quality-Control Services: Tests, inspections, procedures, and related actions during and after execution of the Work to evaluate that completed construction complies with requirements. Services do not include contract enforcement activities performed by Architect.
- C. Testing Agency: An entity engaged to perform specific tests, inspections, or both. Testing laboratory shall mean the same as testing agency.

1.4 SUBMITTALS

- A. Qualification Data: 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.

QUALITY REQUIREMENTS

- B. Delegated-Design Submittal: In addition to Shop Drawings, Product Data, and other required submittals, 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.
- C. Schedule of Tests and Inspections: Prepare in tabular form and include the following:
1. Specification Section number and title.
 2. Description of test and inspection.
 3. Identification of applicable standards.
 4. Identification of test and inspection methods.
 5. Number of tests and inspections required.
 6. Time schedule or time span for tests and inspections.
 7. Entity responsible for performing tests and inspections.
 8. Requirements for obtaining samples.
 9. Unique characteristics of each quality-control service.
- D. Reports: Prepare and submit certified written reports that include the following:
1. Date of issue.
 2. Project title and number.
 3. Name, address, and telephone number 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. Ambient conditions at time of sample taking and testing and inspecting.
 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 re-inspecting.
- E. Permits, Licenses, and Certificates: For Owner's records, 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.

1.5 QUALITY ASSURANCE

- A. 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.
- B. Factory-Authorized Service Representative Qualifications: An authorized representative of manufacturer who is trained and approved by manufacturer to inspect installation of manufacturer's products that are similar in material, design, and extent to those indicated for this Project.
- C. Installer Qualifications: A firm or individual experienced in installing, erecting, 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.
- D. 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.

QUALITY REQUIREMENTS

- E. Registered Engineer Qualifications: A registered 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 products that are similar to those indicated for this Project in material, design, and extent.
- F. Specialists: Certain sections of the Specifications require that specific construction activities shall be performed by entities who are recognized experts in those operations. Specialists shall satisfy qualification requirements indicated and shall be engaged for the activities indicated.
 - 1. Requirement for specialists shall not supersede building codes and similar regulations governing the Work, nor interfere with local trade-union jurisdictional settlements and similar conventions.
- G. Testing Agency Qualifications: An agency with the experience and capability to conduct testing and inspecting indicated, as documented by ASTM E 548, and that specializes in types of tests and inspections to be performed.
- H. Preconstruction Testing: Testing agency shall perform preconstruction testing for compliance with specified requirements for performance and test methods.
 - 1. Contractor responsibilities include the following:
 - a. Provide test specimens and assemblies representative of proposed materials and construction. Provide sizes and configurations of assemblies to adequately demonstrate capability of product to comply with performance requirements.
 - b. Submit specimens in a timely manner with sufficient time for testing and analyzing results to prevent delaying the Work.
 - c. Fabricate and install test assemblies using installers who will perform the same tasks for Project.
 - d. When testing is complete, remove assemblies; do not reuse materials on Project.
 - 2. Testing Agency Responsibilities: Submit a certified written report of each test, inspection, and similar quality-assurance service to Architect, with copy to Contractor and Construction Manager. Interpret tests and inspections and state in each report whether tested and inspected work complies with or deviates from the Contract Documents.

1.6 QUALITY CONTROL

- A. Contractor Responsibilities: Unless otherwise indicated, provide quality-control services specified and required by authorities having jurisdiction.
 - 1. Where services are indicated as Contractor's responsibility, engage a qualified testing agency to perform these quality-control services.
 - a. Contractor shall not employ the same entity engaged by Owner, unless agreed to in writing by Owner.
 - 2. Notify testing agencies at least 72 hours in advance of time when Work that requires testing or inspecting 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 inspecting 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.

QUALITY REQUIREMENTS

- B. Special Tests and Inspections: Owner will engage a testing agency to conduct special tests and inspections required by authorities having jurisdiction as the responsibility of Owner.
1. Testing agency will notify Architect and Contractor promptly of irregularities and deficiencies observed in the Work during performance of its services.
 2. Testing agency will submit a certified written report of each test, inspection, and similar quality-control service to Architect with copy to Contractor and to authorities having jurisdiction.
 3. Testing agency will submit a final report of special tests and inspections at Substantial Completion, which includes a list of unresolved deficiencies.
 4. Testing agency will interpret tests and inspections and state in each report whether tested and inspected work complies with or deviates from the Contract Documents.
 5. Testing agency will retest and reinspect corrected work at the expense of the Contractor.
- C. 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.
- D. Retesting/Re-inspecting: Regardless of whether original tests or inspections were Contractor's responsibility, provide quality-control services, including retesting and reinspecting, for construction that revised or replaced Work that failed to comply with requirements established by the Contract Documents.
- E. Testing Agency Responsibilities: Cooperate with Architect and Contractor in performance of duties. Provide qualified personnel to perform required tests and inspections.
1. Notify Architect and Contractor promptly of irregularities or deficiencies observed in the Work during performance of its services.
 2. Interpret tests and inspections and state in each report whether tested and inspected work complies with or deviates from requirements.
 3. Submit a certified written report, in duplicate, of each test, inspection, and similar quality-control service through Contractor.
 4. Do not release, revoke, alter, or increase requirements of the Contract Documents or approve or accept any portion of the Work.
 5. Do not perform any duties of Contractor.
- F. Associated Services: Cooperate with agencies 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 inspecting. Assist agency in obtaining samples.
 4. Facilities for storage and field-curing of test samples.
 5. Delivery of samples to testing agencies.
 6. Preliminary design mix proposed for use for material mixes that require control by testing agency.
 7. Security and protection for samples and for testing and inspecting equipment at Project site.
- G. 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 inspecting.
1. Schedule times for tests, inspections, obtaining samples, and similar activities.
- H. Schedule of Tests and Inspections: Prepare a schedule of tests, inspections, and similar quality-control services required by the Contract Documents. Submit schedule within 30 days of date established for the Notice to Proceed.

1. Distribution: Distribute schedule to Owner, Architect, testing agencies, and each party involved in performance of portions of the Work where tests and inspections are required.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 ACCEPTABLE TESTING AGENCIES

- A. Recognized and/or licensed firms qualified to conduct the required testing.

3.2 REPAIR AND PROTECTION

- A. General: On completion of testing, inspecting, sample taking, and similar services, repair damaged construction and restore substrates and finishes.
 1. Provide materials and comply with installation requirements specified in other Sections of these Specifications. Restore patched areas and extend restoration into adjoining areas in a manner that eliminates evidence of patching.
 2. Comply with the Contract Document requirements for Division 01 Section 017329 "Cutting and Patching."
- 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

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SECTION 01 42 00 - REFERENCES

PART 1 - GENERAL

1.1 DEFINITIONS

- A. General: Basic Contract definitions are included in the Conditions of the Contract.
- B. "Approved": The term "approved," when used to convey Architect's action on Contractor's submittals, applications, and requests, is limited to Architect's duties and responsibilities as stated in the Conditions of the Contract.
- C. "Directed": Terms such as "directed," "requested," "authorized," "selected," "approved," "required," and "permitted" mean directed by Architect, requested by Architect, and similar phrases.
- D. "Indicated": The term "indicated" refers to graphic representations, notes, or schedules on Drawings or to other paragraphs or schedules in Specifications and similar requirements in the Contract Documents. Terms such as "shown," "noted," "scheduled," and "specified" are used to help the user locate the reference.
- E. "Regulations": The term "regulations" includes laws, ordinances, statutes, and lawful orders issued by authorities having jurisdiction, as well as rules, conventions, and agreements within the construction industry that control performance of the Work.
- F. "Furnish": The term "furnish" means to supply and deliver to Project site, ready for unloading, unpacking, assembly, installation, and similar operations.
- G. "Install": The term "install" describes operations at Project site including unloading, temporarily storing, unpacking, assembling, erecting, placing, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning, and similar operations.
- H. "Provide": The term "provide" means to furnish and install, complete, and ready for the intended use.
- I. "Installer": An installer is the Contractor, or another entity engaged by Contractor as an employee, Subcontractor, or Sub-subcontractor, to perform a particular construction operation, including installation, erection, application, and similar operations.
- J. The term "experienced," when used with an entity, means having successfully completed a minimum of 3 previous projects similar in size and scope to this Project; compliance with any other requirements listed in the Instructions to Bidders; being familiar with special requirements indicated; and having complied with requirements of authorities having jurisdiction.
 - 1. Using a term such as "carpentry" does not imply that certain construction activities must be performed by accredited or unionized individuals of a corresponding generic name, such as "carpenter." It also does not imply that requirements specified apply exclusively to tradesperson of the corresponding generic name.
- K. "Project site" is the 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

REFERENCES

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.
- C. Conflicting Requirements: If compliance with two or more standards is specified and the standards establish different or conflicting requirements for minimum quantities or quality levels, comply with the most stringent requirement. Refer uncertainties and requirements that are different, but apparently equal, to Architect for a decision before proceeding.
 - 1. Minimum Quantity or Quality Levels: The quantity or quality level shown or specified shall be 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.
- D. Copies of Standards: Each entity engaged in construction on Project must 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 and make them available on request.
- E. Abbreviations and Acronyms for Industry Organizations: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the entities indicated in Gale Research's "Encyclopedia of Associations" or in Columbia Books' "National Trade & Professional Associations of the U.S."

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION

SECTION 01 50 00 - TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes requirements for temporary facilities and controls, including temporary utilities, support facilities, and security and protection facilities.
- B. Temporary utilities include, but are not limited to, the following:
 - 1. Sewers and drainage.
 - 2. Water service and distribution.
 - 3. Sanitary facilities, including toilets, wash facilities, and drinking-water facilities.
 - 4. Heating, ventilation and cooling facilities.
 - 5. Electric power service.
 - 6. Lighting.
 - 7. Internet service.
- C. Support facilities include, but are not limited to, the following:
 - 1. Project identification and temporary signs.
 - 2. Waste disposal facilities.
 - 3. Field offices.
 - 4. Storage and fabrication sheds.
 - 5. Lifts and hoists.
 - 6. Construction aids and miscellaneous services and facilities.
 - 7. Dewatering facilities and drains.
 - 8. Snow removal of construction site.
 - 9. Weed trimming and grass cutting of construction site.
- D. Security and protection facilities include, but are not limited to, the following:
 - 1. Environmental protection.
 - 2. Stormwater control.
 - 3. Tree and plant protection.
 - 4. Pest control.
 - 5. Site enclosure fence.
 - 6. Security enclosure and lockup.
 - 7. Barricades, warning signs, and lights.
 - 8. Temporary enclosures.
 - 9. Temporary partitions.
 - 10. Fire protection.
 - 11. Site security lighting.
- E. Related Sections include the following:
 - 1. Section 008200, "Safety and Health Management Plan Project Requirements."
 - 2. Section 011400 "Work Restrictions" for use of Project premises, limits of use, and limitations on utility interruptions.

TEMPORARY FACILITIES AND CONTROLS

3. Section 013300 "Submittal Procedures" for procedures for submitting copies of implementation and termination schedule and utility reports.
4. Section 017300 "Execution" for progress cleaning requirements.
5. Divisions 23 through 28 for temporary heat, ventilation, and humidity requirements for products in those Sections.
6. Division 32 Sections for construction and maintenance of asphalt paving and cement concrete pavement for temporary roads and paved areas.

1.3 DEFINITIONS

- A. Permanent Enclosure: As determined by Architect and Construction Manager, permanent or temporary roofing is complete, insulated, and weathertight; exterior walls are insulated and weathertight; and all openings are closed with permanent construction or substantial temporary closures.

1.4 USE CHARGES AND OUTLINE REQUIREMENTS

- A. General: Cost or use charges for required temporary facilities shall be included in the total Contract Sum are not chargeable to Owner, Construction Manager, or Architect as extra costs. Allow other entities to use temporary services and facilities without cost, including, but not limited to, the following:
 1. Owner's construction forces.
 2. Occupants of Project.
 3. Architect and Construction Manager (CM).
 4. Testing agencies.
 5. Personnel of authorities having jurisdiction.
- B. Water Service: General Contractor shall be responsible for all water needs on project, from a water truck, temporary service as shown on the Phasing Drawings, or from new water service, from Notice to Proceed and until new permanent water service is installed and metered to building site. Owner will pay for metered use charges for the Project once the permanent system is installed, tested and accepted by Water Authority.
- C. Sewer Service: General Contractor shall be responsible for collecting and disposing of any water containing solids or other effluents with or without solids that are to be disposed of as a function of their work until the permanent septic or sewer system is fully functional and operational. Any effluents not permitted to be discharged into sewer or septic system shall be collected and disposed of by the Contractor.
- D. Electric Service: General Contractor shall furnish and install temporary power service for construction activities. Owner shall pay for all metered use charges from temporary service. Once permanent service is active, Owner will pay for use charges for permanent service.
- E. Internet Service: General Contractor is responsible to furnish and install a 5G Hotspot internet service for their use at the Project site if needed during the school year. Public Wi-Fi will be available to contractors during the summer.
- F. HVAC System – General Contractor shall:
 1. Utility costs for permanent or approved temporary HVAC system use will be paid by Owner.
 2. Protect any existing HVAC systems indicated to remain.
 3. Provide any supplemental HVAC equipment, including humidification and/or dehumidification equipment, that is necessary for the installation of new construction and finishes and maintaining equipment in place until Substantial Completion.
 4. Owner will not be responsible for any costs for servicing, maintaining or operating temporary or permanent systems until after Substantial Completion of each phase.
 5. Maintain, operate and extend equipment warranties as required to provide the Owner with a new, clean system with all warranty periods in effect as required by the Contract Documents.
- G. Clarification of Utility Use Charges:

TEMPORARY FACILITIES AND CONTROLS

1.5 SUBMITTALS

- A. Implementation and Termination Schedule: Within 15 days of date established for commencement of the Work, submit schedule indicating implementation and termination dates of each temporary utility.
- B. Fire-Safety Program: Show compliance with requirements of NFPA 241 and authorities having jurisdiction. Indicate Contractor personnel responsible for management of fire-prevention program.
- C. Temporary Utility Reports: Submit reports of tests, inspections, meter readings, and similar procedures performed on temporary utilities.

1.6 QUALITY ASSURANCE

- A. Standards: Comply with ANSI A10.6, NECA's "Temporary Electrical Facilities," and NFPA 241.
 - 1. Trade Jurisdictions: Assigned responsibilities for installation and operation of temporary utilities are not intended to interfere with trade regulations and union jurisdictions.
 - 2. 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.

1.7 PROJECT CONDITIONS AND OPERATION

- A. Temporary Utilities: At earliest feasible time, when acceptable to Owner, change over from use of temporary service to use of permanent service.
 - 1. Temporary Use of Permanent Facilities: Installer of each permanent system and service shall assume responsibility for operation, maintenance, and protection of each permanent system and service during its use as a construction facility before Owner's acceptance, regardless of previously assigned responsibilities.
- B. Conditions of Use: The following conditions apply to use of temporary services and facilities by all parties engaged in the Work:
 - 1. Keep temporary services and facilities clean and neat.
 - 2. Relocate temporary services and facilities as required by progress of the Work.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. General: Undamaged, previously used materials in serviceable condition may be used if approved by Construction Manager. Provide materials suitable for use intended.
- B. Portable Chain-Link Fencing: Provide temporary, post-driven galvanized steel chain link fence, 6'-0" high, 11-gauge wire in a 2" (50-mm) mesh with top and bottom selvages knuckled with movable supported ballast systems. At select locations where approved by CM, provide driven posts.
- C. Fencing Windscreen Privacy Screen: Polyester fabric scrim with grommets for attachment to chain-link fence, sized to height of fence, in color selected by Architect from manufacturer's standard colors.

TEMPORARY FACILITIES AND CONTROLS

- D. Tarpaulins: Fire-resistive labeled with flame-spread rating of 15 or less.
- E. Water: Potable.
- F. Pavement and Concrete: Comply with requirements of Division 03 and 32 Sections.
- G. Lumber and Plywood: Comply with requirements of Division 06 Section "Rough Carpentry".
- H. Insulation: Unfaced mineral-fiber blanket, manufactured from glass, slag wool, or rock wool; with maximum flame-spread and smoke-developed indices of 25 and 50, respectively.
- I. Paint: Comply with requirements in Division 09 Section "Painting".

2.2 TEMPORARY FACILITIES

- A. General: Provide equipment suitable for use intended.
- A. Storage and Fabrication Sheds: Provide sheds sized, furnished, and equipped to accommodate materials and equipment for construction operations.
 - 1. Store combustible materials apart from building.

2.3 EQUIPMENT

- A. Fire Extinguishers: Hand carried, portable, UL rated. Provide class and extinguishing agent as indicated or a combination of extinguishers of NFPA-recommended classes for exposures.
 - 1. Comply with NFPA 10 and NFPA 241 for classification, extinguishing agent, and size required by location and class of fire exposure.
 - 2. Extinguisher shall have a valid inspection tag.
- B. Self-Contained Toilet Units: Single-occupant units of chemical, aerated recirculation, or combustion type; vented; fully enclosed with a glass-fiber-reinforced polyester shell or similar nonabsorbent material.
- C. Temporary HVAC Equipment: Unless Owner authorizes use of permanent heating 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. Temporary Dehumidifying Equipment: Provide system engineered by temporary equipment supplier for expected conditions and interior environment requirements specified. Provide self-contained, recirculating refrigeration units with water collection and filtration capabilities.
 - a. Equipment shall be sized with sufficient moisture extraction capabilities to maintain ambient interior air within specified relative humidity range.
 - b. Provide collection and/or drainage capabilities to prevent condensate from re-evaporating in conditioned space or from spilling on floors.
- D. Generators: Provide generators sized to power equipment where temporary electric service is of insufficient capacity.

TEMPORARY FACILITIES AND CONTROLS

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.

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.
- B. Provide each facility ready for use when needed to avoid delay. Maintain and modify as required. Do not remove until facilities are no longer needed or are replaced by authorized use of completed permanent facilities.
 - 1. .
- C. Sanitary Facilities and Drinking Water by General Contractor: Provide temporary toilets, hand/wash facilities, and drinking-water fixtures. Comply with regulations and health codes for type, number, location, operation, and maintenance of fixtures and facilities.
 - 1. Drinking Water: Install water service and distribution piping in sizes and pressures adequate for construction until permanent water service is in use. Sterilize temporary water piping before use.
 - 2. Disposable Supplies: Provide toilet tissue, paper towels, paper cups, hand sanitizer, and similar disposable materials for each facility. Maintain adequate supply. Provide covered waste containers for disposal of used material.
 - 3. Toilets: Use of Owner's existing toilet facilities will not be permitted unless Owner provides permission. Install self-contained toilet units. Shield toilets to ensure privacy.
 - 4. Wash Facilities: Install wash facilities supplied with potable water at convenient locations for personnel. Dispose of drainage properly. Supply cleaning compounds appropriate for each type of material handled.
 - 5. Provide safety showers, eyewash fountains, and similar facilities for convenience, safety, and sanitation of personnel.
- D. Chain Link Fence:
 - 1. Shall secure the site and furnish gates as shown on Phasing Plan(s) or as required for project and directed by Construction Manager. The fencing and gates shall be relocated and adjusted during the Project as required, as noted on the Phasing Plans(s) and/or as directed by Construction Manager.
- E. Temporary HVAC: Provide temporary HVAC and humidity control required by construction activities, for curing or drying of completed installations, or protection of installed construction from adverse effects of low temperatures or high humidity from Notice to Proceed to Substantial Completion for each renovated building area. Temporary HVAC and humidity control shall also be provided in all new building areas scheduled for work in order to maintain productivity of all subcontractors and personnel. Comply with the following:
 - 1. Select safe equipment that will not have a harmful effect on completed installations or elements being installed.
 - 2. Coordinate ventilation requirements to produce the ambient condition required and minimize consumption of energy.
 - 3. Maintain the temporary heat to a minimum of 60 degrees F.
 - 4.
 - 5. Provide all other contractors with the Project Schedule and the minimum heating requirements to protect the Work as scheduledThe General Contractor shall not be responsible for providing

TEMPORARY FACILITIES AND CONTROLS

- temporary heat and humidity control in permanently unconditioned areas or in areas not scheduled for work, unless the approved schedule is modified and accepted by the Owner.
6. Contractor is responsible for protecting their work in unconditioned or unscheduled work areas at no additional expense to the Owner.
 7. When necessary for the proper prosecution of the work, the General Contractor shall provide, maintain, operate and pay all costs including fuel, for sufficient approved heat.
 8. Contractor shall properly protect all HVAC equipment / systems from construction air dust and debris beginning from initial installation.
 9. Select safe equipment that will not have a harmful effect on completed installations or elements being installed.
 10. Coordinate ventilation requirements to produce the ambient condition required and minimize consumption of energy.
 11. Maintain the temporary heat to a minimum of 60 degrees F for construction areas and at 70 degrees F for all occupied areas.
 12. Work which is damaged as a result of improper or insufficient climate control shall be removed and replaced.
- F. Ventilation and Humidity Control :
1. Provide temporary ventilation required by construction activities for curing or drying of completed installations or for protecting installed construction from adverse effects of high humidity. Select equipment from that specified that will not have a harmful effect on completed installations or elements being installed. Coordinate ventilation requirements to produce ambient condition required and minimize energy consumption.
 2. Temporary Humidity Control:
 - a. General: Where control of ambient humidity is required for proper performance of the work, or for curing/drying of installed work, or for protection of installed work from deterioration due to variations in ambient conditions and/or adverse effects of high humidity, provide temporary humidification or dehumidification equipment to maintain the required conditions. This equipment may require air conditioning to achieve the desired results and maintain the Project schedule. Determination of the required equipment is the responsibility of the General Contractor. Coordinate the use of the equipment with temporary heating to produce the required conditions with a minimum overall use of energy.
 - b. Construction Dehumidification (ongoing): Provide portable dehumidification units for use during construction. Units shall be provided as required to maintain optimal building moisture conditions required for the proper performance of the Work. Moisture levels shall be maintained throughout both occupied and unoccupied areas of the facilities.
 - c. Units shall be refrigeration-based and shall include standard 115V power cord, humidistat, integral condensate pump, wheels and handle. Units shall be as manufactured by Ebac or approved equal. Dehumidifier capacities and quantities shall be as follows:
 - i. Quantity 15 - Minimum 25 gallons/day capacity (Ebac BD150CR or equal).
 - ii. Locations shall be as agreed upon in the field with the Architect and Construction Manager.
 - d. Furnish and install drainage hoses and connections to discharge condensate to exterior of building at locations acceptable to the Construction Manager and Architect.
 - e. The Contractor shall be responsible to distribute power sources throughout each area of the building dedicated for the purpose of power for the humidification and/or dehumidification units. This power shall be in addition to power required by the trades for performance of their Work.
- G. Electric Power Service: Use of Owner's electric power service will be permitted, as long as equipment is maintained in a condition acceptable to Owner.
- H. Internet service : Provide (1) Hotspot capable of 5G service for Contractor's use at the Project site during the school year.

TEMPORARY FACILITIES AND CONTROLS

- I. Provide internet service/power to site monitoring camera and video storage system as specified and required by CM.
- J. For existing construction: Maintain all existing HVAC, electrical fire safety, communications, and lighting systems in operation at all times until new systems are in place and operational. Do not interrupt service unless areas are not occupied in accordance with the schedule. Where all existing systems are removed for new installations, provide, at minimum, temporary systems as noted above for new construction areas. At earliest feasible time but no later than Substantial Completion of each phase provide permanent systems. Contractor must operate, maintain and protect the permanent systems through final completion of the project and provide full project warranty from the contract completion date of the project.

3.3 SUPPORT FACILITIES INSTALLATION

- A. General: Comply with the following:
 - 1. Locate field offices, storage sheds, sanitary facilities, and other temporary construction and support facilities for easy access.
 - 2. Provide incombustible construction for offices, shops, and sheds located within construction area or within 30 feet (9 m) of building lines in accordance with ASTM E136. Comply with NFPA 241.
 - 3. Maintain support facilities until near Substantial Completion. Remove before Substantial Completion. Personnel remaining after Substantial Completion will not be permitted to use permanent facilities.
- B. Temporary Roads and Paved Areas : Construct and maintain temporary roads and paved areas adequate to support loads and to withstand exposure to traffic during construction period. Locate temporary roads and paved areas in same location as permanent roads and paved areas and in compliance with the Phasing Plan(s). Extend temporary roads and paved areas, within construction limits indicated, as necessary for construction operations.
 - 1. Coordinate elevations of temporary roads and paved areas with permanent roads and paved areas.
 - 2. Prepare subgrade and install subbase and base for temporary roads and paved areas according to Section 312000 "Earth Moving."
 - 3. Recondition base after temporary use, including removing contaminated material, regrading, proof rolling, compacting, and testing.
 - 4. Delay installation of final course of permanent hot-mix asphalt pavement until immediately before Substantial Completion. Repair hot-mix asphalt base-course pavement before installation of final course according to Division 32 Section "Hot-Mix Asphalt Paving".
 - 5. Provide dust-control treatment that is non-polluting and non-tracking. Re-apply treatment as required to minimize dust.
 - 6. Cooperate with Work by others on the adjoining property construction.
- C. Waste Disposal Facilities and Cleanup: Contractor will provide waste-collection containers in sizes adequate to handle regular waste generated from construction operations. Contractor pays for and disposes of all their construction waste in accordance with the Contract and its provisions throughout all Project activities. Contractor shall coordinate the dumpster locations. . Contractor is responsible for collecting, and disposing of, their respective construction waste generated from new building construction, existing building demolition . Containerize and clearly label hazardous, dangerous, or unsanitary waste materials separately from other waste and dispose of this waste.
 - 1. Contractor shall clean up all work areas on a daily basis including all site and building areas in full compliance with the requirements of the Contract. Contractor shall segregate materials and place them in designated containers.
 - 2. Owner, after consultation with the Construction Manager, shall deduct \$200.00 per day from Contractor for not performing the required daily cleanup. The total amount will be deducted from the Contractor's total contract sum. Construction Manager will re-assign cleanup or hire independent contractor to perform cleanup. Construction Manager may also withhold processing of payment request until cleanup duties are resumed to Construction Manager's satisfaction.
 - 3. Contractor shall follow procedures to direct as much waste as possible from the landfill.

TEMPORARY FACILITIES AND CONTROLS

4. Contractors shall coordinate the locations of the waste containers with Prime Contractors and as noted on Phasing Plan(s). All locations to be confirmed with the Construction Manager prior to placement.
 - i. Provide equipment and labor required for positioning and relocating waste containers on site as well as compacting or consolidating materials in the containers.
 - ii. Provide equipment and labor required for lifting and hoisting any material handling units of 2.5 cubic yards, 1,000 lbs. (48" x 40") into the building areas from waste management trucks and also back out onto trucks when boxes are full.
 5. GC's waste hauler will remove all waste containers from the Project site.
 6. Contractor shall comply with Construction Waste Management requirements.
 - D. Janitorial Services : Provide janitorial services on a weekly basis for Construction Manager's temporary offices, first-aid stations and toilets.
 - E. Field Offices:
 1. Locate facility where it will serve the project adequately and result in minimum interference with the performance of the work. Relocate and modify facilities as required. Furnish facility prior to start of work and remove facility at final completion of project. Provide all utilities to service facility, including electric service, lighting, and other facilities as required.
 - F. Temporary Elevator Use:
 1. Use of Owner's elevators will be permitted, provided elevators are protected, cleaned and maintained in a condition acceptable to Owner. At Substantial Completion, restore elevators to condition existing before initial use, including replacing worn cables, guide shoes, and similar items of limited life.
 - a. Do not load elevators beyond their rated weight capacity.
 - b. Provide protective coverings, barriers, devices, signs, or other procedures to protect elevator car and entrance doors and frame. If, despite such protection, elevators become damaged, engage elevator Installer to restore damaged work, so no evidence remains of correction work. Return items that cannot be refinished in field to the shop, make required repairs and refinish entire unit, or provide new units as required.
 - G. Temporary Stairs : Until permanent stairs are available, provide temporary stairs where ladders are not adequate. Cover finished, permanent stairs with protective covering of plywood or similar material so finishes will be undamaged at time of acceptance. 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, despite such protection, stairs become damaged, restore damaged areas so no evidence remains of correction work.
 - H. Traffic Controls: Provide temporary traffic controls at junction of temporary roads with public roads. Include warning signs for public traffic and "STOP" signs for entrance onto public roads. Provide construction site signage on adjacent roads and site to direct public and construction traffic (both vehicular and pedestrian), comply with CM and Owner's request for all site and road signage. 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.
- 3.4 SECURITY AND PROTECTION FACILITIES INSTALLATION - BY GENERAL CONTRACTOR
- 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.

TEMPORARY FACILITIES AND CONTROLS

- B. Environmental Protection: Provide protection, operate temporary facilities, and conduct construction in ways and by methods that comply with environmental regulations and that minimize possible air, waterway, and subsoil contamination or pollution or other undesirable effects. Avoid using tools and equipment that produce harmful noise. Restrict use of noisemaking tools and equipment to hours that will minimize complaints from persons or firms near Project site.
- C. Stormwater Control: Provide silt barriers in and around excavations and subgrade construction, sufficient to prevent flooding by runoff of stormwater from heavy rains.
- D. Tree and Plant Protection: Install temporary fencing located as indicated or outside the drip line of trees to protect vegetation from construction damage. Protect tree root systems from damage, flooding, and erosion.
- E. Site Enclosure Fence: Before construction operations begin, install chain-link enclosure fence with lockable entrance gates. Locate where indicated or enclose entire Project site or portion determined sufficient to accommodate construction operations. Install in a manner that will prevent people, dogs, and other animals from easily entering site except by entrance gates.
 - 1. Set fence posts below grade a minimum of 3 feet.
 - 2. Provide gate in sizes and at locations necessary to accommodate delivery vehicles and other construction operations.
 - 3. Maintain security by limiting number of keys and restricting distribution to authorized personnel. Provide CM and Owner with one set of keys and/or access code(s).
 - 4. Provide plywood on fencing adjacent to existing windows and doors.
- F. Security Enclosure and Lockup: Install substantial 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.
- G. Site Security: Ensure all windows, doors and gates are closed and secured at the conclusion of each day in scheduled work areas.
- H. Barricades, Warning Signs, and Lights: Comply with standards and code requirements for erecting structurally adequate barricades. Paint with appropriate colors, graphics, and warning signs to inform personnel and public of possible hazard. Where appropriate and needed, provide lighting, including flashing red or amber lights.
 - 1. For safety barriers, sidewalk bridges, and similar uses, provide minimum 5/8-inch thick exterior plywood.
 - 2. Where indicated on phasing plan provide concrete 'Jersey' barriers.
- I. 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 not complete, provide insulated temporary enclosures. Coordinate enclosure with ventilating and material drying or curing requirements to avoid dangerous conditions and effects.
 - 2. Vertical Openings: Close openings of 25 sq. ft. or less with plywood or similar materials.
 - 3. Horizontal Openings: Close openings in floor or roof decks and horizontal surfaces with load-bearing, wood-framed construction.
 - 4. Install tarpaulins securely using fire-retardant-treated wood framing and other materials.
 - 5. Where temporary wood or plywood enclosure exceeds 100 sq. ft. in area, use fire-retardant-treated material for framing and main sheathing.
 - 6. Provide temporary enclosures as required to meet criteria for permanent enclosure no later than the beginning of any of the following Work:
 - a. Spray fireproofing.
 - b. Interior finishes, including gypsum wallboard finishing, painting and wall coverings.
 - c. Architectural woodwork.
 - d. Institutional casework.

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- e. Install temporary enclosures before time frames stated above when necessary to maintain interior relative humidity levels and temperatures as required to promote drying of concrete and concrete masonry substrates so that they achieve low enough moisture content and vapor emission levels to permit timely installation of finishes.
- J. Temporary Partitions: Erect and maintain dustproof partitions and temporary enclosures to limit dust and dirt migration and to separate areas from fumes and noise.
 - 1. Construction dustproof partitions of not less than nominal 4-inch studs, 5/8-inch gypsum wallboard with joints taped on occupied side, and 1/2-inch fire retardant plywood on construction side.
 - 2. Construct dustproof, floor-to-ceiling partitions of not less than nominal 4-inch studs, 2 layers of 3-mil polyethylene sheets, inside and outside temporary enclosure. Cover floor with 2 layers of 3-mil polyethylene sheets, extending sheets 18 inches up the side walls. Overlap and tape full length of joints. Cover floor with 3/4-inch fire-retardant plywood.
 - 3. Seal joints and perimeter. Equip partitions with dustproof doors and security locks.
 - 4. Protect air-handling equipment.
 - 5. Weatherstrip openings.
- K. Exterior Surface Protection:
 - 1. Where sequence of operations exposes exterior finished materials including, but not limited to factory finished metal, anodized metal, glass and the like, to mortars, grouts, alkalis, acids, strong detergents or other materials that may cause damage to adjacent finishes, provide surface protection materials completely over surface to be protected.
 - 2. Comply with surface protection material manufacturer's recommendations. Do not leave materials in place beyond maximum time limit.
 - 3. Remove protection materials completely when at-risk work is complete.
- L. Traffic Surface Protection:
 - 1. New Finished Traffic Surfaces: From the time of installation to just before inspection for Substantial Completion, overlay traffic surfaces with traffic protection products as recommended by manufacturer for substrates to be protected. Replace traffic protection products when damaged. Where specified products do not meet construction traffic demands or when required by Architect or Construction Manager, provide more substantial protection as specified below for existing traffic surfaces to remain.
 - 2. Existing Finished Traffic Surfaces to Remain: From the time of one week before the commencement of any work of a phase of any prime contractor in area or areas immediately adjacent to floors to be protected, overlay traffic surfaces with one layer of craft paper and follow with one layer of plywood. Secure plywood with heavy adhesive tape. Maintain protection for duration of work in area and remove just before inspection for Substantial Completion.
- M. Temporary Fire Protection: Until fire-protection needs are supplied by permanent facilities, install and maintain temporary fire-protection facilities of types needed to protect against reasonably predictable and controllable fire losses. Comply with NFPA 241.
 - 1. Provide fire extinguishers, installed on walls on mounting brackets, visible and accessible from space being served, with sign mounted above.
 - 2. Develop and supervise an overall fire-prevention and first-aid fire-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.
 - 3. Provide temporary standpipes and hoses for fire protection of sufficient length to reach construction areas. 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.
 - 4. Prohibit smoking and vaping in construction areas.
 - 5. Supervise welding operations, combustion-type temporary heating units, and similar sources of fire ignition according to requirements of authorities having jurisdiction.
 - 6. Coordinate activities with Fire Watch. Notify Fire Watch of hours of operation and planned fire-risk activities such as welding within construction areas.

TEMPORARY FACILITIES AND CONTROLS

- N. Fire Watch: Provide adequate number of and properly trained personnel to provide fire watch in accordance with NFPA 51B "Standard for Fire Protection During Welding, Cutting and Other Hot Work 1999 Edition, NFPA 101 "Life Safety Code", Articles 9.6.1.8 and 9.7.6.1 (including appendix) and as follows:
1. Fire Watch personnel shall be trained and provide services in compliance with NFPA 601 "Standard for Security Services in Fire Loss Prevention" and shall be acceptable to the Authorities Having Jurisdiction.
 2. The responsible party for Fire Watch Services as defined in Division 01 Section "Multiple Contracts Summary" shall be considered "Management" for the purposes of complying with the referenced standards.
 3. Fire Watch personnel shall be provided with portable communications to permit immediate communication with school authorities, contractors and public emergency services.
 4. Conduct a coordination meeting in advance of the earliest requirement for Fire Watch with the Owner, respective Project Coordinators, Construction Manager, Authorities Having Jurisdiction and Architect.
 - a. Develop an emergency response plan for risks associated with construction. Coordinate with Owner's existing security and emergency response plan.
 - b. Establish the lines of and order of communications based on each anticipated risk type.
 - c. Project Coordinators shall record and transmit minutes of the meeting to attendees and to Fire Watch personnel.
 5. Fire Watch shall be provided when the following Work is scheduled."
 - a. When hot work is being conducted.
 - b. When fire alarm is not in operation in occupied areas for time greater than 4 hours.
 - c. When fire suppression system is not in operation in occupied areas for time greater than 4 hours.
 6. For the entire duration of time from the blocking of existing stair towers.
 7. For the entire duration of time from the disturbance of the egress route.
- N. Fire Extinguishers: Class A stored-pressure water-type extinguishers. Other Locations: Class ABC dry-chemical extinguishers or a combination of extinguishers of NFPA-recommended classes for exposures.
1. Locate fire extinguishers where convenient and effective for their intended purpose; provide not less than one extinguisher on each floor at or near each usable stairwell.
 2. Store combustible materials in containers in fire-safe locations.
 3. Maintain unobstructed access to fire extinguishers, fire hydrants, temporary fire-protection facilities, stairways, and other access routes for firefighting. Prohibit smoking/vaping on the Project site and within all building areas.
 4. Supervise welding operations, combustion-type temporary heating units, and similar sources of fire ignition.
- O. Permanent Fire Protection: At earliest feasible date in each area of Project, complete installation of permanent fire-protection in facility, including connected services, and place into operation and use. Instruct key personnel on use of facilities.

3.5 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. Protect from damage caused by freezing temperatures and similar elements.
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.

TEMPORARY FACILITIES AND CONTROLS

2. Prevent water-filled piping from freezing. Maintain markers for underground lines. Protect from damage during excavation operations.
 - C. Operate Project-identification-sign lighting daily from dusk until 12:00 midnight.
 - D. Temporary Facility Changeover for Security and Protection: Except for using permanent fire protection as soon as available, do not change over from using temporary security and protection facilities to permanent facilities until Substantial Completion.
 - E. Termination, Removal and Temporary Facility Changeover: 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 the property of Contractor. Owner reserves right to take possession of Project identification signs.
 2. Remove temporary paving not intended for or acceptable for integration into permanent paving. Where area is intended for landscape development, remove soil and aggregate fill that do not comply with requirements for fill or subsoil. Remove materials contaminated with road oil, asphalt and other petrochemical compounds, and other substances that might impair growth of plant materials or lawns and dispose of in a legal manner. Repair or replace street paving, curbs, and sidewalks at temporary entrances, as required by authorities having jurisdiction.
 3. At Substantial Completion, clean and renovate permanent facilities used during construction period. Comply with final cleaning requirements in Section 017700 "Closeout Procedures."
 4. Replace significantly worn parts and parts that have been subject to unusual operating conditions.
 5. Replace lamps that are burned out or noticeably dimmed by substantial hours of use.
- 3.6 NO SMOKING
- A. Smoking or vaping is not permitted on the entire Project site.
- 3.7 IDENTIFICATION OR SIGNS
- A. Only one project sign will be permitted for the site, provided by the General Contractor and listing all contractors. Individual contractor signs, other advertisements, or flags will not be permitted.
- 3.8 COMPLIANCE WITH TEMPORARY FACILITIES AND CONTROLS
- A. If contractor does not comply with any of the requirements of this Section, CM reserves the right to recommend to Owner to withhold adequate funds from payment applications to pay for completing the Work as required.

END OF SECTION

SECTION 01 55 26 – TRAFFIC CONTROL

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including General Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. The Work of this Section includes:
 - 1. The safe and efficient movement of traffic must be maintained in the vicinity of construction by the Contractor.

1.3 RELATED SECTIONS

- A. Related Work Specified Elsewhere:
 - 1. Division 31 Section "Excavation, Backfill and Compaction of Utilities".
 - 2. Division 32 Section "Asphalt Paving".

1.4 TRAFFIC CONTROL PLAN

- A. Traffic control plan shall comply with PennDOT Publication 203 Work Zone Traffic Control and the traffic control requirements of **the City of Reading**.
- B. Contractor shall implement a Traffic Control Plan as approved by all authorities having jurisdiction on the work along with any related conditions imposed by permits relative to work in or along the highways adjoining the property.
- C. Contractor shall implement any Traffic Control Plan requirements imposed by any Road Opening Permit issued by the respective City and/or PennDOT relative to work in or along roads.
- D. Contractor will be required to furnish, erect, and maintain traffic cones, drums, barricades, flashing danger signal lights, directional signs, and provide trained and equipped flagmen as required by the Traffic Control Plan and local and state permit requirements to restrict the movement of traffic within the construction areas and to clearly indicate the restrictions well in advance to vehicular traffic.
- E. Contractor shall consult with authority having jurisdiction in establishing public thoroughfares to be used for haul routes and public access.

1.5 NOTIFICATIONS

- A. Contractor shall provide advance notification to any parties so noted in the Municipal's Road Opening Permit in accordance with the required time schedule. In any event, the Municipal Police Department and Public Works Department shall be notified at least ten (10) days prior to the date Contractor desires to restrict traffic in or along any roads.

TRAFFIC CONTROL

- B. Contractor shall obtain advance approval from the Authority having jurisdiction should it be necessary to temporarily close a road. The following parties shall be notified at least twenty-four (24) hours in advance.
 - 1. Local Police.
 - 2. Reading Department of Public Works.
 - 3. Local Fire Company.
 - 4. Owner.
 - 5. Local Ambulance Service.
 - 6. All affected residents.
 - 7. PennDOT.
- C. At least one lane must be open for traffic during non-working periods and the Contractor must be prepared to allow passage of emergency vehicles at any time.

1.6 CONSTRUCTION PARKING CONTROL

- A. Control vehicular parking to prevent interference with access by emergency vehicles, neighboring properties, and Owner's operations.
- B. Monitor parking of construction personnel's vehicles. Maintain vehicular access to and through parking areas.
- C. Prevent parking on or adjacent to access roads or in non-designated areas.

1.7 OTHER REQUIREMENTS

- A. Access must be maintained at all times during non-working periods and to the maximum extent feasible during working periods to all driveways and entrances of adjacent properties. In this regard, the construction and maintenance of steel plates or other decking across the trench may be necessary to reduce to a minimum interference with access to the adjacent properties.
- B. Open trenches shall be safely decked during non-work periods by the use and maintenance of steel plates or other decking, which shall have sufficient strength to safely support all traffic including truck loads.
- C. When construction work, including repaving, has been completed, the temporary measures of the Traffic Control Plan shall be removed, any damage caused by installation of the temporary measures shall be repaired, and traffic shall be restored to its former condition.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)

END OF SECTION

SECTION 01 60 00 - PRODUCT REQUIREMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including General Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes the following administrative and procedural requirements: selection of products for use in Project; product delivery, storage, and handling; manufacturers' standard warranties on products; special warranties; product substitutions; and comparable products.
- B. Related Sections include the following:
 - 1. Division 01 Section 014200 "References" for applicable industry standards for products specified.
 - 2. Division 01 Section 017700 "Closeout Procedures" for submitting warranties for contract closeout.
 - 3. Divisions 02 through 33 Sections for specific requirements for warranties on products and installations specified to be warranted.

1.3 DEFINITIONS

- A. Products: Items purchased 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, except that products consisting of recycled-content materials are allowed, unless explicitly stated otherwise. Products salvaged or recycled from other projects are not considered new products.
 - 3. Comparable Product: Product that is demonstrated and approved through substitution process, to have the indicated qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics that equal or exceed those of specified product.
- B. Substitutions: Changes in products, materials, equipment, and methods of construction from those required by the Contract Documents and proposed by Bidder.
- C. Basis-of-Design Product Specification: Where a specific manufacturer's product is named and accompanied by the words "basis of design," including make or model number or other designation, to establish the significant qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics for purposes of evaluating comparable products of other named manufacturers.
- D. Manufacturer's Warranty: Preprinted written warranty published by individual manufacturer for a particular product and specifically endorsed by manufacturer to Owner.
- E. Special Warranty: Written warranty required by or incorporated into the Contract Documents, to extend time limit provided either by manufacturer's warranty or to provide more rights for Owner.

PRODUCT REQUIREMENTS

1.4 SUBMITTALS

- A. Product List: Submit a list, in tabular form, showing specified products. Include generic names of products required. Include manufacturer's name and proprietary product names for each product.
1. Coordinate product list with Contractor's Construction Schedule and the Submittals Schedule.
 2. Form: Tabulate information for each product under the following column headings:
 - a. Specification Section number and title.
 - b. Generic name used in the Contract Documents.
 - c. Proprietary name, model number, and similar designations.
 - d. Manufacturer's name and address.
 - e. Supplier's name and address.
 - f. Installer's name and address.
 - g. Projected delivery date or time span of delivery period.
 - h. Identification of items that require early submittal approval for scheduled delivery date.
 3. Initial Submittal: Within 30 days after date of commencement of the Work, submit (2) copies of initial product list. Include a written explanation for omissions of data and for variations from Contract requirements.
 - a. At Contractor's option, initial submittal may be limited to product selections and designations that must be established early in Contract period.
 4. Completed List: Within 60 days after date of commencement of the Work, submit (3) copies of completed product list. Include a written explanation for omissions of data and for variations from Contract requirements.
 5. Architect's Action: Architect will respond in writing to Contractor within 15 days of receipt of completed product list. Architect's response will include a list of unacceptable product selections and a brief explanation of reasons for this action. Architect's response, or lack of response, does not constitute a waiver of requirement that products comply with the Contract Documents.
- B. Pre-bid Substitution Requests: Submit one copy of each Pre-bid Substitution Request not later than 10 days prior to receipt of Bids 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: Refer to Specification Section 002625, Substitution Request Form.
 2. Documentation: Show compliance with requirements for substitutions and the following, as applicable:
 - a. Statement indicating why specified material or product cannot be provided.
 - b. Coordination information, including a list of changes or modifications 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 substitution with those of the Work specified. Significant qualities may include attributes such as performance, weight, size, durability, visual effect, and specific features and requirements indicated.
 - d. Product Data, including drawings and descriptions of products and fabrication and installation procedures.
 - e. Samples, where applicable or requested.
 - f. List of similar installations for completed projects with project names and addresses and names and addresses of Architects and owners.
 - g. Material test reports from a qualified testing agency indicating and interpreting test results for compliance with requirements indicated.
 - h. Research/evaluation reports evidencing compliance with building code in effect for Project, from a model code organization acceptable to authorities having jurisdiction.
 - i. Detailed comparison of Contractor's Construction Schedule using proposed substitution 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,

PRODUCT REQUIREMENTS

- include letter from manufacturer, on manufacturer's letterhead, stating lack of availability or delays in delivery.
 - j. Cost information, including a proposal of change, if any, in the Contract Sum.
 - k. Bidder's certification that proposed substitution complies with requirements in the Contract Documents and is appropriate for applications indicated.
 - l. 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 one week of receipt of a request for substitution. Architect will notify Contractor of acceptance or rejection of proposed substitution within 15 days of receipt of request, or 7 days of receipt of additional information or documentation, whichever is later.
 - a. Form of Acceptance: Addendum.
 - b. Use product specified if Architect cannot make a decision on use of a proposed substitution within time allocated from the information provided it will be rejected.
- C. Basis-of-Design Product Specification Submittal: Comply with requirements in Division 01 Section 013300 "Submittal Procedures." Show compliance with requirements.

1.5 QUALITY ASSURANCE

- A. Compatibility of Options: If Contractor is given option of selecting between two or more products for use on Project, product selected shall be compatible with products previously selected, even if previously selected products were also options.
 - 1. Each Contractor is responsible for providing products and construction methods compatible with products and construction methods of other contractors.
 - 2. If a dispute arises between contractors over concurrently selectable but incompatible products, Architect and Owner will determine which products shall be used.
 - 3. The material selected by the Architect shall be provided at no additional cost to the Owner.

1.6 PRODUCT DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store, and handle products using means and methods that will prevent damage, deterioration, and loss, including theft. Comply with manufacturer's written instructions. Deliveries addressed to the project, in general, the Owner, Architect/Engineer, or Construction Manager, will be refused and returned to shipper.
 - 1. Notify Construction Manager and Owner 48 hours in advance of major deliveries.
 - 2. Schedule delivery to minimize long-term storage at Project site and to prevent overcrowding of construction spaces.
 - 3. Coordinate delivery with installation time to ensure minimum holding time for items that are flammable, hazardous, easily damaged, or sensitive to deterioration, theft, and other losses.
 - 4. Deliver products to Project site in an undamaged condition in manufacturer's original sealed container or other packaging system, complete with labels and instructions for handling, storing, unpacking, protecting, and installing.
 - 5. Inspect products on delivery to ensure compliance with the Contract Documents and to ensure that products are undamaged and properly protected.
 - 6. Store products to allow for inspection and measurement of quantity or counting of units.
 - 7. Store materials in a manner that will not endanger Project structure.
 - 8. Store products that are subject to damage by the elements, under cover in a weathertight enclosure above ground, with ventilation adequate to prevent condensation.
 - 9. Comply with product manufacturer's written instructions for temperature, humidity, ventilation, and weather-protection requirements for storage.
 - 10. Protect stored products from damage.
- B. Storage: Provide a secure location and enclosure at Project site for storage of materials and equipment by Owner's construction forces. Coordinate location with Owner.

PRODUCT REQUIREMENTS

1.7 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.
- B. Special Warranties: Prepare a written document that contains appropriate terms and identification, ready for execution. Submit a draft for approval before final execution.
 - 1. Manufacturer's Standard Form: Modified to include Project-specific information and properly executed.
 - 2. Specified Form: Forms are included with the Specifications. Prepare a written document using appropriate form properly executed.
 - 3. Refer to Divisions 02 through 33 Sections for specific content requirements and particular requirements for submitting special warranties.
- C. Submittal Time: Comply with requirements in Division 01 Section 017700 "Closeout Procedures."

PART 2 - PRODUCTS

2.1 PRODUCT OPTIONS

- A. General Product Requirements: Provide products that comply with the Contract Documents, that are undamaged, and unless otherwise indicated, that 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 not in conflict with requirements of the Contract Documents.
 - 4. Where products are accompanied by the term "as selected," Architect will make selection.
 - 5. Where products are accompanied by the term "match sample," sample to be matched is Architect's.
 - 6. Descriptive, performance, and reference standard requirements in the Specifications establish "salient characteristics" of products.
 - 7. Or Equal: Where products are specified by name and accompanied by the term "or equal" or "or approved equal" or "or approved," comply with provisions in "Comparable Products" Article to obtain approval for use of an unnamed product.
- B. Product Selection Procedures: Procedures for product selection include the following:
 - 1. Product: Where Specification paragraphs or subparagraphs titled "Product" name a single product and manufacturer, provide the product named.
 - 2. Manufacturer/Source: Where Specification paragraphs or subparagraphs titled "Manufacturer" or "Source" name single manufacturers or sources, provide a product by the manufacturer or from the source named that complies with requirements.
 - 3. Products: Where Specification paragraphs or subparagraphs titled "Products" introduce a list of names of both products and manufacturers, provide one of the products listed that comply with requirements.
 - 4. Manufacturers: Where Specification paragraphs or subparagraphs titled "Manufacturers" introduce a list of manufacturers' names, provide a product by one of the manufacturers listed that complies with requirements.
 - 5. Available Products: Where Specification paragraphs or subparagraphs titled "Available Products" introduce a list of names of both products and manufacturers, provide one of the products listed or another product that complies with requirements. Comply with provisions in "Comparable Products" Article to obtain approval for use of an unnamed product.

PRODUCT REQUIREMENTS

6. Available Manufacturers: Where Specification paragraphs or subparagraphs titled "Available Manufacturers" introduce a list of manufacturers' names, provide a product by one of the manufacturers listed or another manufacturer that complies with requirements. Comply with provisions in "Comparable Products" Article to obtain approval for use of an unnamed product.
7. Product Options: Where Specification paragraphs titled "Product Options" indicate that size, profiles, and dimensional requirements on Drawings are based on a specific product or system, provide either the specific product or system indicated or a comparable product or system by another manufacturer. Comply with provisions in "Product Substitutions" Article.
8. Basis-of-Design Products: Where Specification paragraphs or subparagraphs titled "Basis-of-Design Product(s)" are included and also introduce or refer to a list of manufacturers' names, provide either the specified product or a comparable product by one of the other named manufacturers. Drawings and Specifications indicate sizes, profiles, dimensions, and other characteristics that are based on the product named. Comply with provisions in "Comparable Products" Article to obtain approval for use of an unnamed product.
9. Visual Matching Specification: Where Specifications require matching an established Sample, select a product (and manufacturer) that complies with requirements and matches Architect's sample. Architect's and Owner's decision will be final on whether a proposed product matches satisfactorily.
 - a. If no product available within specified category matches satisfactorily and complies with other specified requirements, comply with provisions of the Contract Documents on "substitutions" for selection of a matching product.
10. Visual Selection Specification: Where Specifications include the phrase "as selected from manufacturer's colors, patterns, textures" or a similar phrase, select a product (and manufacturer) that complies with other specified requirements.
 - a. Standard Range: Where Specifications include the phrase "standard range of colors, patterns, textures" or similar phrase, Architect and Owner will select color, pattern, or texture from manufacturer's product line that does not include premium items.
 - b. Full Range: Where Specifications include the phrase "full range of colors, patterns, textures" or similar phrase, Architect and Owner will select color, pattern, or texture from manufacturer's product line that includes both standard and premium items.

2.2 COLOR SELECTION

A. Pre-Selected Colors:

1. Where colors have been specifically identified in the Contract Documents, the products provided by the Contractor shall match the selected color to the satisfaction of the Architect or the product will be rejected as non-conforming materials.
2. Manufacturers listed in the specification sections are capable of manufacturing the product specified but may not manufacture the specific selected color identified in the Contract Documents as part of their running line.

B. If additional up-charges are associated with providing the colors identified in the Contract Documents, the Contractor shall be responsible for all such costs and no additional cost to the Owner above the Contract Sum will be considered.

C. Colors Selected During Construction:

1. Products will be selected by the Architect from the standard colors of any of the listed or approved manufacturers, unless a specific color or color price range has been identified prior to bidding.

D. Location of Selected Colors: In general, preselected colors are identified in the following locations:

1. Exposed Interior Finishes: Room Finish Schedule - Color Legend.
2. Other Materials: Individual Specification Sections or notes to the Drawings.

PRODUCT REQUIREMENTS

2.3 SUBSTITUTIONS AFTER EXECUTION OF THE AGREEMENT

- A. Substitution of Materials: No substitutions of materials will be considered after the Execution of the Contract without a Credit to the Owner unless a Product becomes unavailable through no fault of the Contractor.
- B. NO ACTION TO REVIEW THE PROPOSED SUBSTITUTION WILL BE TAKEN BY THE ARCHITECT OR ENGINEER UNTIL THE CONTRACTOR HAS SUBMITTED THE FOLLOWING:
 - 1. A letter itemizing the proposed credit to Owner.
 - 2. A copy of the warranty.
 - 3. A summary of the schedule impact.
 - 4. Properly executed Document 002625, Substitution Request Form.
- C. Substitutions will not be considered when they are indicated or implied on shop drawing or product data submittals, without separate written request as included above, or when acceptance will require revision to the Contract Documents.
- D. In submitting a substitution request the Contractor acknowledges that:
 - 1. The Contractor shall coordinate installation of the substitution including modifications to other Work.
 - 2. The use of this Substitution will not adversely affect the Project Schedule.
 - 3. If modifications to the work of this contract or another contract are required because of the substitution these modifications shall be made at no additional cost to Owner.
 - 4. The Contractor waives all rights to claims for additional costs or time extension which may subsequently become apparent.

2.4 COMPARABLE PRODUCTS

- A. Where products or manufacturers are specified by name, submit the following, in addition to other required submittals, to obtain approval of an unnamed product:
 - 1. Evidence that the proposed product does not require extensive revisions to the Contract Documents, that it is consistent with the Contract Documents, and will produce the indicated results, and that it is compatible with other portions of the Work.
 - 2. Detailed comparison of significant qualities of proposed product with those named in the Specifications. Significant qualities include attributes such as performance, weight, size, durability, visual effect, and specific features and requirements indicated.
 - 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.

2.5 USE OF NON-HAZARDOUS MATERIALS:

- A. Materials used in this Project shall have no detectable levels of the following hazardous materials.
 - 1. Asbestos of any form or type.
 - 2. Lead in water supply line solder.
 - 3. Lead in paint coatings and finishes.
 - 4. Polychlorinated Biphenyls (PCBs).
- B. Upon substantial completion, the Contractor shall submit, on its company letterhead, a signed statement certifying that the products supplied under its Contract had no detectable levels of the hazardous materials listed above in Paragraph 2.5.A. Final payment will not become due until five (5) copies of this letter are submitted (one each for the CM and Architect's files and three for Owner).

READING SCHOOL DISTRICT
13TH & UNION ELEMENTARY RENOVATIONS
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01 60 00

PRODUCT REQUIREMENTS

PART 3 - EXECUTION (Not Used)

END OF SECTION

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SECTION 01 73 00 - EXECUTION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including General Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes general procedural requirements governing execution of the Work including, but not limited to, the following:
 - 1. Construction layout.
 - 2. General installation of products.
 - 3. Progress cleaning.
 - 4. Starting and adjusting.
 - 5. Protection of installed construction.
 - 6. Correction of the Work.
- B. Related Sections include the following:
 - 1. Division 01 Section 013100 "Project Management and Coordination" for procedures for coordinating field engineering with other construction activities.
 - 2. Division 01 Section 017329 "Cutting and Patching" for procedural requirements for cutting and patching necessary for the installation or performance of other components of the Work.
 - 3. Division 01 Section 017700 "Closeout Procedures".

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Existing Conditions: The existence and location of site improvements, utilities, and other construction indicated as existing are not guaranteed. Before beginning work, investigate and verify the existence and location of mechanical and electrical systems and other construction affecting the Work.
 - 1. Before construction, verify the location and points of connection of utility services.
 - 2. Furnish location data for work related to Project that must be performed by public utilities serving Project site.
- B. Existing Utilities: The existence and location of underground and other utilities and construction indicated as existing are not guaranteed. Before beginning site work, investigate and verify the existence and location of underground utilities and other construction affecting the Work.
 - 1. Before construction, verify the location and invert elevation at points of connection of sanitary sewer, storm sewer, water-service piping, and underground electrical services.
 - 2. Furnish location data for work related to Project that must be performed by public utilities serving Project site.

- C. Acceptance of Conditions: 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. Written Report: Where a written report listing conditions detrimental to performance of the Work is required by other Sections, include the following:
 - a. Description of the Work.
 - b. List of detrimental conditions, including substrates.
 - c. List of unacceptable installation tolerances.
 - d. Recommended corrections.
 2. Verify compatibility with and suitability of substrates, including compatibility with existing finishes or primers.
 3. Examine roughing-in for mechanical and electrical systems to verify actual locations of connections before equipment and fixture installation.
 4. Examine walls, floors, and roofs for suitable conditions where products and systems are to be installed.
 5. 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. Existing Utility Interruptions: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary utility services according to requirements indicated:
1. Notify Owner not less than 30 days in advance of proposed utility interruptions.
 2. Do not proceed with utility interruptions without Owner's written permission.
 3. All utility interruptions shall be scheduled for weekends or holidays.
- C. 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.
- D. Space Requirements: Verify space requirements and dimensions of items shown diagrammatically on Drawings.
- E. 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. Include a detailed description of problem encountered, together with recommendations for changing the Contract Documents.

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. If discrepancies are discovered, notify Architect promptly.
1. Establish dimensions within tolerances indicated. Do not scale Drawings to obtain required dimensions.
 2. Inform installers of lines and levels to which they must comply.
 3. Check the location, level and plumb, of every major element as the Work progresses.
 4. Notify Architect when deviations from required lines and levels exceed allowable tolerances.

3.4 INSTALLATION

- A. General: 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.
- 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 the best possible results. 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.
- E. Tools and Equipment: Do not use tools or equipment that produce harmful noise levels exceeding 80 dBA.
- F. 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.
- G. Anchors and Fasteners: Provide anchors and fasteners as required to anchor each component securely in place, accurately located and aligned with other portions of the Work.
 - 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.
- H. Joints: Make joints of uniform width. Where joint locations in exposed Work are not indicated, arrange joints for the best visual effect. Fit exposed connections together to form hairline joints.

Hazardous Materials: Use products, cleaners, and installation materials that are not considered hazardous.

3.5 PROGRESS CLEANING

- A. Each contractor is responsible to comply with progress cleaning. The Prime Contractor shall be responsible for overall progress cleaning. If in the opinion of the Construction Manager, any contractor fails to comply with progress cleaning, and upon written request by the Construction Manager to the affected contractor, the Construction Manager shall direct the Architect to prepare a deduct change order. The Owner also reserves the right to perform progress cleaning and deduct the cost from the contractor or contractors responsible. If multiple contractors are at fault, the costs may be apportioned solely in the judgment of the Construction Manager. The amount deducted shall be a minimum of \$200.00 per day. Construction Manager may also withhold processing of contractor's payment until cleanup duties are resumed to Construction Manager's satisfaction.
- B. General: Clean Project site and work areas daily, including common areas. Coordinate progress cleaning for joint-use areas where more than one installer has worked. 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 materials more than 7 days during normal weather or 3 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.

- C. Site: Maintain Project site free of waste materials and debris.
- D. 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.
- E. 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.
- F. Concealed Spaces: Remove debris from concealed spaces before enclosing the space.
- G. Exposed Surfaces: Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Substantial Completion.
- H. Cutting and Patching: Clean areas and spaces where cutting and patching are performed. Completely remove paint, mortar, oils, putty, and similar materials.
 - 1. Thoroughly clean piping, conduit, and similar features before applying paint or other finishing materials. Restore damaged pipe covering to its original condition.
- I. Waste Disposal: Burying or burning waste materials on site will not be permitted. Washing waste materials down sewers or into waterways will not be permitted.
- J. 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.
- K. 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.
- L. Limiting Exposures: Supervise construction operations to assure that no part of the construction, completed or in progress is subject to harmful, dangerous, damaging, or otherwise deleterious exposure during the construction period.

3.6 STARTING AND ADJUSTING

- A. Coordinate startup and adjusting of equipment and operating components with requirements in Section 019113 "General Commissioning Requirements."
- B. Start equipment and operating components to confirm proper operation. Remove malfunctioning units, replace with new units, and retest.
- C. Adjust operating components for proper operation without binding. Adjust equipment for proper operation.
- D. Test each piece of equipment to verify proper operation. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.
- E. Manufacturer's Field Service: If a factory-authorized service representative is required to inspect field-assembled components and equipment installation, comply with qualification requirements in Division 01 Section 014000 "Quality Requirements."

3.7 PROTECTION OF INSTALLED CONSTRUCTION

- A. When finished work is installed, such as, but not limited to, flooring materials, toilet fixtures, roofing, doors, casework, countertops, finished wall surfaces or other materials that can be damaged during construction, provide appropriate protection immediately after installation to prevent damage.
- B. Provide final protection and maintain conditions that ensure installed Work is without damage or deterioration at time of Substantial Completion.
- C. Comply with manufacturer's written instructions for temperature and relative humidity.
- D. Contractors shall not use finished materials and surfaces as ladders, platforms or storage shelves. Tools and toolboxes shall not be placed on finished surfaces without adequate protection.
- E. Construction Manager can deduct \$200.00 per day from any contractor not properly protecting their finished work or from any contractor working on, above or adjacent to finished work and not properly protecting such work.

3.8 CORRECTION OF THE WORK

- A. Repair or remove and replace defective construction. Restore damaged substrates and finishes. Comply with requirements in Division 01 Section 017329 "Cutting and Patching."
 - 1. Repairing includes replacing defective parts, refinishing damaged surfaces, touching up with matching materials, and properly adjusting operating equipment.
- B. Restore permanent facilities used during construction to their specified condition.
- C. Remove and replace damaged surfaces that are exposed to view if surfaces cannot be repaired without visible evidence of repair.
- D. Repair components that do not operate properly. Remove and replace operating components that cannot be repaired.

END OF SECTION

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SECTION 01 73 29 - CUTTING AND PATCHING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including General Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes general administrative and procedural requirements governing execution of the Work.
- B. Requirements and limitations for cutting and patching of Work.
 - 1. A Contractor, subcontractor, or sub-subcontractor requiring the cutting of openings in new Work installed by others shall have such openings cut and patched by the trade which installed the work, and such cutting and patching shall be at the expense of the Contractor, subcontractor, or sub-subcontractor requiring the opening.
 - 2. A Contractor, subcontractor, or sub-subcontractor requiring the cutting of openings or patching of existing materials shall be performed by a sub-contractor with experience in cutting and patching of material being modified and shall be at the expense of the Contractor, subcontractor, or sub-subcontractor requiring the opening.
 - 3. Approval to do such cutting and patching shall be received from the Architect prior to proceeding with the work and shall include installation of such reinforcement of the work as the Architect may direct.
 - 4. All blocking, bracing, reinforcement, or structural enhancement required due to cutting and patching shall be provided at no additional cost to Owner. All patching work shall match adjacent existing Work unless otherwise noted.
 - 5. Contractor, subcontractors, and sub-sub-contractors shall conduct Work in accordance with the Occupational Safety and Health Act of 1970 (OSHA) and all additions, amendments, and revisions thereto.
- C. Related Sections include the following:
 - 1. Division 01 Section 017300 "Execution" for additional general administrative and procedural requirements governing execution of the Work.
 - 2. Division 01 Section 017419 "Construction Waste Management" for additional disposal requirements of hazardous materials.
 - 3. Divisions 02 through 31 Sections for specific requirements and limitations applicable to cutting and patching individual parts of the Work.
 - a. Requirements in this Section apply to plumbing, mechanical, and electrical installations. Refer to Divisions 21 through 28 Sections for other requirements and limitations applicable to cutting and patching plumbing, mechanical, and electrical installations.

1.3 DEFINITIONS

- A. Cutting: Removal of existing or in-place construction necessary to permit installation or performance of other Work.
- B. Patching: Fitting and repair work required to restore surfaces to original conditions after installation of other Work.

CUTTING AND PATCHING

1.4 PREINSTALLATION MEETINGS

- A. Cutting and Patching Conferences: Prior to commencing Work requiring cutting and patching, meet at Project site with parties involved in cutting and patching to review extent of cutting and patching anticipated and examine procedures for ensuring satisfactory result from cutting and patching Work. Inform Architect and Construction Manager of scheduled meeting. Require representatives of each Prime Contract directly concerned or affected by the cutting and patching to attend, including the following:
 - a. Contractor's superintendent.
 - b. Trade supervisor responsible for cutting operations.
 - c. Trade supervisor(s) responsible for patching of each type of substrate.
 - d. Mechanical, electrical, and utilities subcontractors' supervisors, to the extent each trade is affected by cutting and patching operations.
- B. Review areas of potential interference and conflict. Coordinate procedures and resolve potential conflicts before proceeding.

1.5 SUBMITTALS

- A. Cutting and Patching Proposal: Submit a proposal describing procedures at least 10 days before the time cutting and patching will be performed, requesting approval to proceed. Include the following information:
 - 1. Extent: Describe cutting and patching, show how they will be performed, and indicate why they cannot be avoided.
 - 2. Changes to Existing Construction: Describe anticipated results. Include changes to structural elements and operating components as well as changes in building's appearance and other significant visual elements.
 - 3. Products: List products to be used and firms or entities that will perform the Work.
 - 4. Dates: Indicate when cutting and patching will be performed.
 - 5. Utilities and Mechanical and Electrical Systems: List services and systems that cutting and patching procedures will disturb or affect. List services and systems that will be relocated and those that will be temporarily out of service. Indicate length of time permanent services and systems will be disrupted.
 - a. Include description of provisions for temporary services and systems during interruption of permanent services and systems.
 - 6. Structural Elements: Where cutting and patching involve adding reinforcement to structural elements, submit details and structural calculations showing integration of reinforcement with original structure.
 - 7. Architect's Approval: Obtain approval of cutting and patching proposal before cutting and patching. Approval does not waive right to later require removal and replacement of unsatisfactory work.

1.6 QUALITY ASSURANCE

- A. Structural Elements: Do not cut and patch structural elements in a manner that could change their load-carrying capacity or load-deflection ratio.
- B. 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.
 - 1. Primary operational systems and equipment.
 - 2. Fire separation assemblies.
 - 3. Air or smoke barriers.
 - 4. Fire-protection systems.
 - 5. Plumbing piping systems.

CUTTING AND PATCHING

6. Mechanical systems piping and ducts.
 7. Control systems.
 8. Communication systems.
 9. Fire-detection and -alarm systems.
 10. Conveying systems.
 11. Electrical wiring systems.
 12. Operating systems of special construction.
- C. Miscellaneous Elements: Do not cut and patch the following elements or related 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.
1. Water, moisture, or vapor barriers.
 2. Membranes and flashings.
 3. Exterior curtain-wall construction.
 4. Sprayed fire-resistive material.
 5. Equipment supports.
 6. Piping, ductwork, vessels, and equipment.
 7. Noise- and vibration-control elements and systems.
- D. 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 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.
1. If possible, retain original Installer or fabricator to cut and patch exposed Work listed below. If it is impossible to engage original Installer or fabricator, engage another recognized, experienced, and specialized firm.
 - a. Processed concrete finishes.
 - b. Stonework and stone masonry.
 - c. Ornamental metal.
 - d. Preformed metal panels.
 - e. Roofing.
 - f. Firestopping.
 - g. Window wall system.
 - h. Stucco and ornamental plaster.
 - i. Terrazzo.
 - j. Finished wood flooring.
 - k. Wall covering.
 - l. HVAC enclosures, cabinets, or covers.

1.7 WARRANTY

- A. Warranties: Remove, replace, patch, and repair materials and surfaces cut or damaged during cutting and patching operations, by methods and with materials so as not to void warranties.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. General: Comply with requirements specified in other Sections of these Specifications.
- B. Existing Materials: Use materials identical to existing materials. For exposed surfaces, use materials that visually match existing adjacent surfaces to the fullest extent possible.

CUTTING AND PATCHING

1. If identical materials are unavailable or cannot be used, use materials that, when installed, will match the visual and functional performance of existing materials. Use materials that are not considered hazardous.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine surfaces to be cut and patched and conditions under which cutting and patching are to be performed.
 1. Compatibility: Before patching, verify compatibility with and suitability of substrates, including compatibility with existing finishes or primers.
 2. Proceed with installation only after unsafe or unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Temporary Support: Provide temporary support of Work to be cut.
- B. 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.
- C. Adjoining Areas: Avoid interference with use of adjoining areas or interruption of free passage to adjoining areas.
- D. Existing Utility Services and Mechanical/Electrical Systems: Where existing services/systems are required to be removed, relocated, or abandoned, bypass such services/systems before cutting to prevent interruption to occupied areas.

3.3 PERFORMANCE

- 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. 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. Cutting tools or saws shall be equipped with bays or containers, or connected to vacuum systems, to minimize dust.
 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: To avoid marring existing 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 a carborundum saw or a diamond-core drill.
 4. Excavating and Backfilling: Comply with requirements in applicable Sections where required by cutting and patching operations.

CUTTING AND PATCHING

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.
- C. 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 possible. 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 existing 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, apply primer and intermediate paint coats over the patch and apply final paint coat over entire unbroken surface containing the patch. Provide additional coats until patch blends with adjacent surfaces.
 4. Ceilings: Patch, repair, or rehang existing 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.
- D. Prime Contractor shall do cutting and patching in existing work or work already constructed required for the work involved in the Contract. Patch holes or openings left by him to match the unaltered existing construction:
1. In Work already constructed, lintels and structural supports required to maintain structural integrity shall be provided by the General Contractor..
 2. Cutting of holes, installation of curbs, and temporary, weatherproof, and secured enclosures for penetrations through the existing Work shall be the responsibility of the Prime . Actual roof flashing and associated work must be executed by a subcontractor, hired by the Prime Contractor, who is acceptable to the manufacturer of the existing roof which shall be certified, in writing, to the Owner and Architect/Engineer by the manufacturer. Existing warranty/guarantee shall be certified as remaining valid.
 3. For penetrations through new work, the Contractor whose work requires the penetration shall be responsible to provide the General Contractor of location, size, and configuration required for the penetration well in advance of the scheduled work. Contractor who requires penetrations through the new roof construction shall provide the prefabricated roof curb and temporary, weatherproof, and secured enclosure on top of curb and coordinate with the General Contractor.
- E. General Contractor shall employ skilled and experienced installer to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time and complete without delay.
- F. General Contractor shall submit written request in advance of cutting or altering elements affecting:
1. Structural integrity of element.
 2. Integrity of weather-exposed or moisture-resistant elements.
 3. Efficiency, maintenance, or safety of element.
 4. Visual qualities of sight-exposed elements.
 5. Work of Owner or separate contractor.

CUTTING AND PATCHING

- G. Should conditions of work or the schedule indicate a change of products from original installation, Contractor shall submit request for substitution as specified in Section 016000 "Product Requirements".
1. Inspect existing conditions of project, including elements subject to damage or to movement during cutting and patching.
 2. After uncovering work, inspect conditions affecting installation of products or performance of work.
 3. Report unsatisfactory or questionable conditions to Construction Manager and Architect/Engineer, in writing; do not proceed with Work until Architect/Engineer has provided further instructions.
- H. General Contractor shall submit written notice to Construction Manager designating the date and time the work will be uncovered.
1. Provide adequate temporary support as necessary to assure structural value or integrity of affected portion of work.
 2. Provide devices and methods to protect other portions of project from damage.
 3. Provide protection from elements for that portion of the project exposed by cutting and patching work and maintain excavations free from water.
- I. General Contractor shall execute cutting, fitting, and patching including excavation and fill, to complete Work and to:
1. Make its several parts fit together properly.
 2. Uncover portions of the work to provide for installation of ill-timed work.
 3. Remove and replace defective work.
 4. Remove and replace work not conforming to requirements of the Contract Documents.
 5. Remove samples of installed work as specified for testing.
 6. Provide routine penetrations of non-structural surfaces for installation of piping and electrical conduit.
- J. General Contractor shall execute Work by avoiding damage to other work and providing proper surfaces to receive patching and finishing.
- K. General Contractor shall execute fitting and adjustment of products to provide a finished installation to comply with specified products, functions, tolerances, and finishes.
- L. General Contractor shall restore Work with new products in accord with requirements of Contract Documents.
- M. General Contractor shall fit Work airtight to pipes, sleeves, ducts, conduit, and other penetrations through surfaces.
- N. General Contractor shall maintain integrity of wall, ceiling, or floor construction, and completely seal voids.
- O. General Contractor shall refinish surfaces to match adjacent finishes. For continuous surfaces, refinish to nearest intersection; for an assembly, refinish entire unit.
- P. General Contractor shall identify hazardous substance or condition exposed during the Work and report to the Construction Manager for decision or remedy.

3.4 HAZARDOUS MATERIAL PROVISIONS

- A. Potential for Hazardous Materials that may affect the Work: Certain environmental conditions or hazardous materials may exist or be encountered during the Work. Contractor shall follow the guidelines listed below for the environmental conditions listed that may exist or be encountered during the Work.
- B. The Contractor is responsible for compliance with any requirements included in the Contract Documents regarding hazardous materials or substances. If the Contractor encounters a hazardous material or substance not addressed in the Contract Documents and if reasonable precautions will be inadequate to

CUTTING AND PATCHING

prevent foreseeable bodily injury or death to persons resulting from a hazardous material or substance, including but not limited to asbestos, mercury, or polychlorinated biphenyl (PCB), encountered on the site by the Contractor, the Contractor shall, upon recognizing the condition, immediately stop Work in the affected area and notify the Owner, Construction Manager, and Architect of the condition.

1. Lead-Based Paint: Painted and varnished surfaces in buildings built prior to 1978 must be assumed to be coated with lead-based paint. Contractors shall immediately report to Construction Manager any areas suspected to be lead paint for decision or remedy. Contractor shall be responsible for all costs related to removal of lead-based paint items in areas affected by their Work as noted below. All required testing shall be performed in accordance with applicable EPA and HUD standards and guidelines pertaining to lead-based paint inspections.
 - a. Lead-Based Paint Disturbance. Contractor shall be responsible for lead-based paint disturbance precautions.
 - i. For buildings defined as a Child-Occupied Facility (children under the age of 6). When these surfaces are disturbed, that disturbance shall be conducted in accord with the Environmental Protection Agency (EPA) 40 CFR, Part 745 "Lead, Renovation, Repair and Painting Program". Compliance is to include using EPA licenses and certified trained renovators, Owner and occupant notifications, work area containment, dust minimization, and clean-up certification. Architect/Engineer shall be copied on the Owner and occupant notifications.
 - ii. For buildings that are not defined as a Child-Occupied Facility (children under the age of 6), all renovation or new construction work that impacts painted components containing lead shall be performed in accordance with the OSHA Lead-in Construction Standard (29 CFR 1926.62), as applicable to the work being performed; and a proper waste management plan shall be utilized to certify that the waste is tested for hazardous waste classification, as applicable, and properly disposed or recycled. Contractors working on the project are responsible for fulfilling all applicable OSHA requirements pertaining to lead, as well as all other applicable federal, state, or local requirements or regulations pertaining to lead-in construction.
 - b. Lead-Based Paint: Demolition and Handling
 - i. Contractor shall handle, contain, store, test, transport, and dispose of demolition debris with lead-containing surface coating in accordance with applicable local, state, and federal regulations. Most painted architectural components in fair condition (not blistering, peeling, etc.), by law, may be disposed of as Construction and Demolition (C&D) debris. If deemed necessary for disposal, Contractor shall be responsible for collecting and having analyzed representative samples of the waste. If necessary, samples shall be tested for toxicity using the Toxicity Characteristics Leaching Procedure (TCLP) for lead sufficient to determine whether the debris is a hazardous waste as defined in 40 CFR 261.3, or a residual waste, as defined in 25 PA Code 287.1, and shall include such analysis as required by the disposal facility. A qualified environmental laboratory acceptable to the Architect and Construction Manager shall conduct tests. A copy of all testing shall be forwarded to the Architect, Construction Manager and Owner.
 - ii. The Contractor shall be responsible for the costs of sample collection and laboratory analysis. Alternately, Contractor can assume lead waste generated is a hazardous waste and TCLP testing is not required, but the waste must then be disposed of and transported as hazardous waste.
 - iii. If, based on testing, there is any hazardous waste generated and transferred to a hazardous waste disposal facility, Contractor shall provide, within 45 days from the time the material is transferred to the disposal facility, a waste manifest to the Owner that identifies the disposal facility name and address, EPA Identification Number, the identity of the waste material, and a statement certifying that the waste was disposed at that facility, including the date. Forward original document to Owner with a copy to the Architect and Construction Manager.

CUTTING AND PATCHING

2. Polychlorinated Biphenyl (PCB) Light Ballasts and Mercury-Containing Fluorescent Light Fixture Recycling and Disposal
 - a. PCB Light ballasts:
 - i. Ballasts demarcated as non-PCB containing may be recycled as non-PCB ballasts in accordance with applicable industry standards for those types of ballasts.
 - ii. Ballast that do not carry a demarcation of non-PCB should be assumed to contain PCB's and recycled as PCB ballasts in a facility that accepts PCB ballasts as universal waste unless they are electronic (no suspect oil). Leaking PCB light ballasts shall be disposed of as hazardous waste unless testing is performed to classify the waste for PCB's.
 - b. Fluorescent light tubes should be assumed to contain mercury at levels that could deem them "hazardous waste" for disposal purposes. All fluorescent light tubes impacted by renovation or new construction work shall be sent for recycling as universal waste to a facility that accepts mercury-containing light tubes as part of their universal waste program.

END OF SECTION

SECTION 01 7700 - CLOSEOUT PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including General Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for contract closeout, including, but not limited to, the following:
 - 1. Inspection procedures.
 - 2. Warranties.
 - 3. Instruction of Owner's personnel.
 - 4. Final cleaning.
- B. Related Sections include the following:
 - 1. Divisions 02 through 33 Sections for specific closeout and special cleaning requirements for products of those Sections.
 - 2. Division 01 Section 019113 "General Commissioning Requirements" for additional information and procedures.

1.3 SUBSTANTIAL COMPLETION

- A. Preliminary Procedures: Before requesting inspection for determining date of Substantial Completion, complete the following. List items below that are incomplete in request.
 - 1. Prepare a list of items to be completed and corrected (punch list), the value of items on the list, and reasons why the Work is not complete.
 - 2. Advise Owner of pending insurance changeover requirements.
 - 3. Submit specific warranties, workmanship bonds, maintenance service agreements, final certifications, and similar documents.
 - 4. Obtain and submit releases permitting Owner unrestricted use of the Work and access to services and utilities. Include occupancy permits, operating certificates, and similar releases.
 - 5. Prepare and submit Project Record Documents, operation, and maintenance manuals.
 - 6. Deliver tools, spare parts, extra materials, and similar items to location designated by Owner. Label with manufacturer's name and model number where applicable.
 - 7. Complete startup testing of systems.
 - 8. Submit test/adjust/balance records.
 - 9. Terminate and remove temporary facilities from Project site, along with mockups, construction tools, and similar elements.
 - 10. Complete final cleaning requirements, including touchup painting.
- B. Inspection: Submit a written request for inspection for Substantial Completion. On receipt of request, Architect will either proceed with inspection or notify Contractor of unfulfilled requirements. Architect, Owner and Construction Manager 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, which must be completed or corrected before certificate will be issued.

CLOSEOUT PROCEDURES

1. Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.
2. If a reinspection identifies work that remains uncompleted, the Contractor shall be responsible for the cost of additional inspections by the Architect and Construction Manager. The Architect and Construction Manager will submit a time and material invoice to the Owner, who will deduct the amount from the balance due to the contractor.
3. Results of completed inspection will form the basis of requirements for Final Completion.

1.4 FINAL COMPLETION

- A. Preliminary Procedures: Before requesting final inspection for determining date of Final Completion, each contractor shall complete and submit the following:

Revise subparagraphs below to match the Supplementary Conditions.

1. Submit a final Application for Payment according to Division 01 Section 012900 "Payment Procedures".
2. Submit an updated final statement, accounting for final additional changes to the Contract Sum.
3. Submit Consent of Surety to final payment using AIA Document G707.
4. Submit a Contractors Affidavit of Payment of Debts and Claims using AIA Document G706.
5. Submit a Contractors Affidavit of Release of Liens using AIA Document G706A.
6. Submit certified copy of Architect's Substantial Completion inspection list of items to be completed or corrected (punch list), endorsed and dated by Architect. The certified copy of the list shall state that each item has been completed or otherwise resolved for acceptance.
7. Submit evidence of final, continuing insurance coverage complying with insurance requirements.
8. Instruct Owner's personnel in operation, adjustment, and maintenance of products, equipment, and systems.

- B. Inspection: Submit a written request for final inspection for acceptance. On receipt of request, Architect, Owner and Construction Manager will either proceed with inspection or notify Contractor of unfulfilled requirements. Architect, Owner, and Construction Manager 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. Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.
2. If a reinspection identifies work that remains uncompleted, the Contractor shall be responsible for the cost of additional inspections by the Architect and Construction Manager. The Architect and Construction Manager will submit a time and material invoice to the Owner, who will deduct the amount from the balance due to the contractor.

1.5 WARRANTIES

- A. Submittal Time: Submit written warranties to the Architect for designated portions of the Work where commencement of warranties other than date of Substantial Completion is indicated.

- B. Organize warranty documents into an orderly sequence based on the table of contents of the Project Manual.

1. Bind warranties and bonds in heavy-duty, 3-ring, vinyl-covered, loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive 8-1/2-by-11-inch paper.
2. Provide heavy paper dividers with plastic-covered tabs for each separate warranty. Mark tab to identify the product or installation. Provide a typed description of the product or installation, including the name of the product and the name, address, and telephone number of Installer.
3. Identify each binder on the front and spine with the typed or printed title "WARRANTIES," Project name, and name of Contractor.

- C. 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.

PART 3 - EXECUTION

3.1 DEMONSTRATION AND TRAINING

- A. Instruction: Instruct Owner's personnel to adjust, operate, and maintain systems, subsystems, and any equipment not part of a system.
 - 1. Provide instructors experienced in operation and maintenance procedures and factory trained to provide instruction and training.
 - 2. Provide instruction at mutually agreed-on times. For equipment that requires seasonal operation, provide similar instruction at the start of each season.
 - 3. Schedule training with Owner with at least 14 days' advance notice.
- B. Program Structure: Develop an instruction program that includes individual training modules for each system and equipment not part of a system, as required by individual Specification Sections. For each training module, develop a learning objective and teaching outline. Include instruction for the following:
 - 1. System design and operational philosophy.
 - 2. Review of documentation.
 - 3. Operations, Adjustments & Troubleshooting.
 - 4. Maintenance & Repairs.
- C. Also comply with Section 019113 "General Commissioning Requirements".
- D. System start up and commission must be completed prior to scheduling Owner instructional training.

3.2 FINAL CLEANING

- A. General: Provide final cleaning. Conduct cleaning and waste-removal operations to comply with local laws and ordinances and Federal and local environmental and antipollution regulations.
- B. Each prime Contractor is responsible for final cleaning of the work included in their contract. The General Contractor is responsible for overall coordination of the final cleaning. If any Contractor fails to provide final cleaning as specified herein, the Owner reserves the right to perform the final cleaning either with their own personnel or an outside agency. The cost of final cleaning if performed by the Owner or their representatives shall be deducted from the amount due to the contractor responsible. If the responsible contractor cannot be identified, the Owner will apportion the cost to each individual contractor, as necessary.
- C. 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 portion of Project:

CLOSEOUT PROCEDURES

- a. Clean Project site, yard, and grounds, in areas disturbed by construction activities, including landscape development areas, of rubbish, waste material, litter, and other foreign substances.
 - b. Sweep paved areas broom clean. Remove petrochemical spills, stains, and other foreign deposits.
 - c. Rake grounds that are neither planted nor paved to a smooth, even-textured surface.
 - d. Remove tools, construction equipment, machinery, and surplus material from Project site.
 - e. 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.
 - f. Remove debris and surface dust from limited access spaces, including roofs, plenums, shafts, trenches, equipment vaults, manholes, attics, and similar spaces.
 - g. Sweep concrete floors broom clean in unoccupied spaces.
 - h. Vacuum carpet and similar soft surfaces, removing debris and excess nap; shampoo if visible soil or stains remain.
 - i. Clean transparent materials, including mirrors and glass in doors and windows. Remove glazing compounds and other noticeable, vision-obscuring materials. Replace chipped or broken glass and other damaged transparent materials. Polish mirrors and glass, taking care not to scratch surfaces.
 - j. Remove labels that are not permanent.
 - k. Touch up and otherwise repair and restore marred, exposed finishes and surfaces. Replace finishes and surfaces that cannot be satisfactorily repaired or restored or that already show evidence of repair or restoration.
 - 1) Do not paint over "UL" and similar labels, including mechanical and electrical nameplates.
 - l. Wipe surfaces of mechanical and electrical equipment, and similar equipment. Remove excess lubrication, paint and mortar droppings, and other foreign substances.
 - m. Replace parts subject to unusual operating conditions.
 - n. Clean plumbing fixtures to a sanitary condition, free of stains, including stains resulting from water exposure.
 - o. Replace disposable air filters and clean permanent air filters. Clean exposed surfaces of diffusers, registers, and grills.
 - p. Clean ducts, blowers, and coils if units were operated without filters during construction.
 - q. Clean light fixtures, lamps, globes, and reflectors to function with full efficiency. Replace burned-out bulbs, and those noticeably dimmed by hours of use, and defective and noisy starters in fluorescent and mercury vapor fixtures to comply with requirements for new fixtures.
 - r. Leave Project clean and ready for occupancy.
- D. Comply with safety standards for cleaning. Do not burn waste materials. Do not bury debris or excess materials on Owner's property. Do not discharge volatile, harmful, or dangerous materials into drainage systems. Remove waste materials from Project site and dispose of lawfully.

END OF SECTION

SECTION 01 7823 - OPERATION AND MAINTENANCE DATA

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including General Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for preparing operation and maintenance manuals, including the following:
 - 1. Operation and maintenance documentation directory.
 - 2. Emergency manuals.
 - 3. Operation manuals for systems, subsystems, and equipment.
 - 4. Maintenance manuals for the care and maintenance of products, materials, finishes systems and equipment.
- B. Related Sections include the following:
 - 1. Section 011200 "Multiple Contract Summary" for coordinating operation and maintenance manuals covering the Work of multiple contracts.
 - 2. Section 013300 "Submittal Procedures" for submitting copies of submittals for operation and maintenance manuals.
 - 3. Section 017700 "Closeout Procedures" for submitting operation and maintenance manuals.
 - 4. Section 017839 "Project Record Documents" for preparing Record Drawings for operation and maintenance manuals.
 - 5. Section 019113 "General Commissioning Requirements" for verification and compilation of data into operation and maintenance manuals.
 - 6. Divisions 02 through 33 Sections for specific operation and maintenance manual requirements for products in those Sections.

1.3 DEFINITIONS

- A. System: An organized collection of parts, equipment, or subsystems united by regular interaction.
- B. Subsystem: A portion of a system with characteristics similar to a system.

1.4 SUBMITTALS

- A. Initial Submittal: Submit 3 draft copies of each manual at least 21 days before requesting inspection for Substantial Completion. Include a complete operation and maintenance directory. Architect will return 1 copy of draft and mark whether general scope and content of manual are acceptable.
- B. Final Submittal: Submit 3 copies of each manual in final form at least 21 days before final inspection. Architect will return copy with comments within 15 days after final inspection.
 - 1. Correct or modify each manual to comply with Architect's comments. Submit 3 copies of each corrected manual within 15 days of receipt of Architect's comments.

1.5 COORDINATION

- A. Where operation and maintenance documentation includes information on installations by more than one factory-authorized service representative, assemble and coordinate information furnished by representatives and prepare manuals.

PART 2 - PRODUCTS

2.1 OPERATION AND MAINTENANCE DOCUMENTATION DIRECTORY

- A. Organization: Include a section in the directory for each of the following:
 - 1. List of documents.
 - 2. List of systems.
 - 3. List of equipment.
 - 4. Table of contents.
- B. List of Systems and Subsystems: List systems alphabetically. Include references to operation and maintenance manuals that contain information about each system.
- C. List of Equipment: List equipment for each system, organized alphabetically by system. For pieces of equipment not part of system, list alphabetically in separate list.
- D. Tables of Contents: Include a table of contents for each emergency, operation, and maintenance manual.
- E. Identification: In the documentation directory and in each operation and maintenance manual, identify each system, subsystem, and piece of equipment with the 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."

2.2 MANUALS, GENERAL

- A. Organization: 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: Enclose title page in transparent plastic sleeve. 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, address, and telephone number of Contractor.
 - 6. Name and address of Architect.
 - 7. 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.
1. Binders: Heavy-duty, 3-ring, vinyl-covered, loose-leaf binders, in thickness necessary to accommodate contents, sized to hold 8-1/2-by-11-inch (115-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.
 - a. If two or more binders are necessary to accommodate data of a system, organize data in each binder into groupings by subsystem and related components. Cross-reference other binders if necessary, to provide essential information for proper operation or maintenance of equipment or system.
 - b. Identify each binder on front and spine, with printed title "OPERATION AND MAINTENANCE MANUAL," Project title or name, and subject matter of contents. Indicate volume number for multiple-volume sets.
 2. Dividers: Heavy-paper dividers with plastic-covered tabs for each section. Mark each tab to indicate contents. Include typed list of products and major components of equipment included in the section on each divider, cross-referenced to Specification Section number and title of Project Manual.
 3. Protective Plastic Sleeves: Transparent plastic sleeves designed to enclose diagnostic software diskettes for computerized electronic equipment.
 4. Supplementary Text: Prepared on 8-1/2-by-11-inch (115-by-280-mm), 20-lb/sq. ft. (75-g/sq. m) white bond paper.
 5. 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.

2.3 EMERGENCY MANUALS

- A. Content: Organize manual into a separate section for each of the following:
1. Type of emergency.
 2. Emergency instructions.
 3. Emergency procedures.
- B. Type of Emergency: Where applicable for each type of emergency indicated below, include instructions and procedures for each system, subsystem, piece of equipment, and component:
1. Fire.
 2. Flood.
 3. Gas leak.
 4. Water leak.
 5. Power failure.
 6. Water outage.
 7. System, subsystem, or equipment failure.
 8. Chemical release or spill.
- C. Emergency Instructions: Describe and explain warnings, trouble indications, error messages, and similar codes and signals. Include responsibilities of Owner's operating personnel for notification of Installer, supplier, and manufacturer to maintain warranties.
- D. Emergency Procedures: Include the following, as applicable:

1. Instructions on stopping.
2. Shutdown instructions for each type of emergency.
3. Operating instructions for conditions outside normal operating limits.
4. Required sequences for electric or electronic systems.
5. Special operating instructions and procedures.

2.4 OPERATION MANUALS

- A. 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.
2. Performance and design criteria if Contractor is 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.

- B. Descriptions: Include the following:

1. Product name and model number.
2. Manufacturer's name, phone numbers and address for support.
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.

- C. 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.

- D. Systems and Equipment Controls: Describe the sequence of operation, and diagram controls as installed.

- E. Piped Systems: Diagram piping as installed and identify color-coding where required for identification.

2.5 PRODUCT MAINTENANCE MANUAL

- A. 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.

OPERATION AND MAINTENANCE DATA

- B. Source Information: List each product included in manual, identified by product name and arranged to match manual's table of contents. For each product, list name, address, and telephone number of Installer or supplier and maintenance service agent, and cross-reference Specification Section number and title in Project Manual.
- 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.

2.6 SYSTEMS AND EQUIPMENT MAINTENANCE MANUAL

- A. 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 warranty and bond information, as described below.
- B. Source Information: List each system, subsystem, and piece of equipment included in the manual, identified by product name and arranged to match manual's table of contents. For each product, list name, address, and telephone number of Installer or supplier and maintenance service agent, and cross-reference Specification Section number and title in Project Manual.
- C. Manufacturers' Maintenance Documentation: Manufacturers' maintenance documentation including the following information for each component part or piece of equipment:
 - 1. Standard printed maintenance instructions and bulletins.
 - 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 videotape, if available.

OPERATION AND MAINTENANCE DATA

- 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.
 - 1. Scheduled Maintenance and Service: Tabulate actions for daily, weekly, monthly, quarterly, semiannual, and annual frequencies.
 - 2. Maintenance and Service Record: Include manufacturers' forms for recording maintenance.
- 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. Maintenance Service Contracts: Include copies of maintenance agreements with name and telephone number of service agent.
- H. 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 3 - EXECUTION

3.1 MANUAL PREPARATION

- A. Operation and Maintenance Documentation Directory: Prepare a separate manual that provides an organized reference to emergency, operation, and maintenance manuals.
- B. Emergency Manual: Assemble a complete set of emergency information indicating procedures for use by emergency personnel and by Owner's operating personnel for types of emergencies indicated.
- C. Product Maintenance Manual: Assemble a complete set of maintenance data indicating care and maintenance of each product, material, and finish incorporated into the Work.
- D. Operation and Maintenance Manuals: Assemble a complete set of operation and maintenance data indicating operation and maintenance of each system, subsystem, and piece of equipment not part of a system.
 - 1. Engage a factory-authorized service representative to assemble and prepare information for each system, subsystem, and piece of equipment not part of a system.
 - 2. Prepare a separate manual for each system and subsystem, in the form of an instructional manual for use by Owner's operating personnel.
- E. Manufacturers' Data: Where manuals contain manufacturers' standard printed data, 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.
 - 1. 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.
- F. 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. Do not use original Project Record Documents as part of operation and maintenance manuals.

OPERATION AND MAINTENANCE DATA

2. Comply with requirements of newly prepared Record Drawings in Division 01 Section 017839 "Project Record Documents."
- G. Comply with Division 01 Section 017700 "Closeout Procedures" for the schedule for submitting operation and maintenance documentation.

END OF SECTION

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SECTION 01 7839 - PROJECT RECORD DOCUMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including General Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for Project Record Documents, including the following:
 - 1. Record Drawings.
 - 2. Miscellaneous record submittals.
- B. Related Sections include the following:
 - 1. Division 01 Section 011200 "Multiple Contract Summary" for coordinating Project Record Documents covering the Work of multiple contracts.
 - 2. Division 01 Section 017300 "Execution" for property survey requirements.
 - 3. Division 01 Section 017700 "Closeout Procedures" for general closeout procedures.
 - 4. Division 01 Section 017823 "Operation and Maintenance Data" for operation and maintenance manual requirements.
 - 5. Division 01 Section 017419 "Construction Waste Management" for additional information and procedures.
 - 6. Division 01 Section 019113 "General Commissioning Requirements" for additional information and procedures.
 - 7. Divisions 02 through 33 Sections for specific requirements for Project Record Documents of products in those Sections.

1.3 SUBMITTALS

- A. Record Drawings: Comply with the following:
 - 1. Each Prime Contractor shall scan and submit one marked-up .pdf set of record drawings electronically to the Architect and Construction Manager.
 - 2. Submit each drawing whether or not changes and additional information were recorded.
 - 3. Each Prime Contractor shall submit requirements of the Code Enforcement office and Township, City, and/or Boro officials on annotated PDF electronic files and directories and/or paper copies of each submittal as required.
- B. Miscellaneous Record Submittals:
 - 1. See other Specification Sections for miscellaneous record-keeping requirements and submittals in connection with various construction activities. Submit required annotated PDF electronic files and directories and/or paper copies of each submittal as required.

1.4 RECORD DRAWINGS

- A. Record Prints: Maintain one set of blue- or black-line white prints of the Contract Drawings and Shop Drawings incorporating new and revised drawings as modifications are issued.

PROJECT RECORD DOCUMENTS

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 prepare the 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 understandable drawing technique.
 - c. Record data as soon as possible after obtaining it.
 - d. Record and check the markup before enclosing concealed installations.
 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.
 - l. 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 or Shop Drawings, whichever is most capable of showing actual physical conditions, completely and accurately. If Shop Drawings are marked, show cross-reference on the Contract Drawings.
 4. Mark record sets with erasable, red-colored pencil. Use other colors to distinguish between changes for different categories of the Work at the 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. 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.
- C. Township, City, and Boro requirements for Record Drawings:
1. In addition to requirements specified in this section and other sections of the specifications, Record Drawings shall include the requirements of the Code Enforcement office and Township, City, and/or Boro officials.

1.5 MISCELLANEOUS RECORD SUBMITTALS

- A. Assemble miscellaneous records required by other Specification Sections for miscellaneous record keeping and submittal in connection with actual performance of the Work. Bind or file miscellaneous records and identify each, ready for continued use and reference.
- B. Format: Submit miscellaneous record submittals in format required by Architect of marked-up miscellaneous record submittals.
 - 1. Include miscellaneous record submittals directory organized by Specification Section number and title, electronically linked to each item of miscellaneous record submittals.

1.6 RECORDING AND MAINTENANCE

- A. Recording: Maintain one copy of each submittal during the construction period for Project Record Document purposes. Post changes and modifications to Project Record Documents as they occur; do not wait until the end of Project.
- B. Maintenance of Record Documents and Samples: Store Record Documents and samples 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

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SECTION 01 7900 - DEMONSTRATION AND TRAINING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including General Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for instructing Owner's personnel, including the following:
 - 1. Demonstration of operation of all systems, subsystems, and equipment.
 - 2. Training in operation and maintenance of all systems, subsystems, and equipment.
 - 3. Demonstration and training video recordings.
- B. Related Sections include the following:
 - 1. Division 01 Section "Project Management and Coordination" for requirements for pre-instruction conferences.
 - 2. Division 01 Section "Quality Requirements" for operational and maintenance procedures and training instruction qualifications.

1.3 SUBMITTALS

- A. Instruction Program: Submit two copies of outline of instructional program for demonstration and training, including a list of training modules and 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. At completion of training, submit two complete training manuals for Owner's use.
- B. Qualification Data: For firms and persons specified in "Quality Assurance" Article to demonstrate their capabilities and experience. Include lists of completed projects with project names and addresses, names, and addresses of architects and owners, and other information specified.
- C. Attendance Record: For each training module, submit list of participants and length of instruction time.
- D. Evaluations: For each participant and for each training module, submit results and documentation of performance-based test.
- E. Provide approved final Operations and Maintenance Manuals for use during the training sessions.

1.4 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.

DEMONSTRATION AND TRAINING

- 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. Schedule training only after all systems have been tested and are fully operational.

1.5 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 has been reviewed and approved by Architect.

1.6 INSTRUCTION PROGRAM

- A. Program Structure: Develop an instruction program that includes individual training modules for each system and equipment not part of a system, as required by individual Specification Sections, and as follows:
 - 1. Finishes.
- 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. Operations manuals.
 - c. Maintenance manuals.
 - d. Project Record Documents.
 - e. Identification systems.
 - f. Warranties and bonds.
 - g. 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.
 - l. 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.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 PREPARATION

- A. Assemble educational materials necessary for instruction, including documentation and training module(s).
Assemble training modules into a combined training manual.

DEMONSTRATION AND TRAINING

- B. Set up instructional equipment at instruction location.
- C. Provide the final training manual, a site-specific agenda, and the resume of the training instructor to the Construction Manager two weeks prior to the scheduled training session.

3.2 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.
 - 1. Owner will furnish Contractor with names and positions of participants.
- C. Scheduling:
 - 1. Schedule training only after system has been tested and is fully operational.
 - 2. Provide instruction at mutually agreed on times. For equipment that requires seasonal operation, provide similar instruction at start of each season. The Contractor shall include one initial training and schedule training with Owner, through Architect or CM, with at least fourteen days' advance notice. Start up and commissioning of systems must be completed before scheduling initial instructional session.
 - 3. For major systems equipment, the Contractor shall include one (1) follow-up training to address questions or concerns from the Owner after the equipment has been in service for a period of six (6) to twelve (12) months.
- D. Review all valve tags, labeling and access locations and provide summary or plans of all valves, shutoffs, and maintenance access locations.
- 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 remove from Project site. Remove instructional equipment. Restore systems and equipment to condition existing before initial training use.

3.3 DEMONSTRATION AND TRAINING VIDEO RECORDINGS

- A. General: Engage a qualified commercial videographer to record demonstration and training video recordings. Record each training module separately.
- B. Documentation: Provide video of training session in digital format requested by Owner and provide access of files to Owner within 10 days of training session. One accessible copy must be provided on thumb drive or CD/DVD format.

END OF SECTION

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