

New Lebanon Local Schools  
**New Lebanon Schools – Softball Building**

S Fuls Road  
New Lebanon OH 45345

Andrew Circle Architect LLC  
320 E Main St  
Troy OH 45339  
937.623.0251

L2 Engineering  
7949 Washington Woods Dr  
Dayton OH 45459  
937.361.6731

**Bid Set**  
**11/06/2024**



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## State of Ohio Standard Requirements for Public Facility Construction

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**END OF DOCUMENT**



# Document 00 10 00 - Solicitation (General Contracting Project) State of Ohio Standard Requirements for Public Facility Construction

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Sealed bids will be received by:

**New Lebanon Local School District**  
**Attn: Kaitlin Huck, Treasurer**  
**320 S Fuls Road**  
**New Lebanon OH 45345**

for the following Project:

New Lebanon Schools – Softball Building  
**New Lebanon Local Schools Board of Education**  
New Lebanon OH, Montgomery Co

in accordance with the Contract Documents prepared by:

**Andrew Circle Architect LLC**  
320 E Main St Troy OH 45373  
937-623-0251  
Andrew Circle  
circleas@gmail.com  
www.andrewcircle.com

Bidders may submit requests for consideration of a proposed Substitution for a specified product, equipment, or service to the Architect/Engineer (“A/E”) no later than 10 days prior to the bid opening. Additional products, equipment, and services may be accepted as approved Substitutions only by written Addendum.

From time to time, the Commission issues new editions of the “State of Ohio Standard Requirements for Public Facility Construction” and may issue interim changes. Bidders must submit Bids that comply with the version of the Standard Requirements included in the Contract Documents.

Equal Employment Opportunity requirements are applicable to this Project. Prevailing Wage is not required for this Project.

This Project is NOT subject to the State of Ohio’s Encouraging Diversity, Growth, and Equity (“EDGE”) Business Development Program.

The Bidder may be subject to a Pre-Award Affirmative Action Compliance Review in accordance with Section 123:2-5-01 of the Ohio Administrative Code including a review of the Bidder’s employment records and an on-site review.

The Bidder must indicate on the Bid Form, the locations where its services will be performed in the spaces provided or by attachment in accordance with the requirements of Executive Order 2019-12D related to providing services only within the United States. Failure to do so may cause the Bid to be rejected as non-responsive.

**DOMESTIC STEEL USE REQUIREMENTS AS SPECIFIED IN OHIO REVISED CODE SECTION 153.011 APPLY TO THIS PROJECT. COPIES OF OHIO REVISED CODE SECTION 153.011 CAN BE OBTAINED FROM ANY OF THE OFFICES OF THE OHIO FACILITIES CONSTRUCTION COMMISSION.**

Bidders are encouraged to be enrolled in and to be in good standing in a Drug-Free Safety Program (“DFSP”) approved by the Ohio Bureau of Workers' Compensation (“OBWC”) prior to submitting a Bid and provide, on the Bid Form with its Bid, certain information relative to their enrollment in such a program; and, if awarded a Contract, shall comply with other DFSP criteria described in **Section 1.6** of the **General Conditions**.

Bids will be received for:

<u>Trade</u>	<u>Estimate</u>
<b>General Contract</b> .....	<b>\$375,000</b>
<b>Alternate 1</b> .....	<b>Add \$24,000</b>

until **Thursday, December 5, 2024, at 2:00 p.m.**, when all Bids will be opened and read aloud at the Dixie High School Library.

There will be no Pre-Bid meeting. If interested bidders would like to access the site, please coordinate w/ A/E & Owner.

The Contractor is responsible for scheduling the Project, coordinating the Subcontractors, and providing other services identified in the Contract Documents.

The Contract Documents are available as .pdf drawings and specifications from Andrew Circle Architect LLC for download by email. Email [circleas@gmail.com](mailto:circleas@gmail.com) for access to drawings & specifications.

**END OF DOCUMENT 00 10 00**

## NOTICE TO BIDDERS

Sealed bids will be received by mail to New Lebanon Local School District, Attn: Kaitlin Huck, Treasurer, 320 S Fuls Rd, New Lebanon OH 45345 or hand-delivered to the Board of Education Office located inside Dixie High School, 320 S Fuls Rd, New Lebanon OH 45345 until **Thursday, December 5, 2024, at 2:00 pm** for:

### **NEW LEBANON SCHOOLS – SOFTBALL BUILDING NEW LEBANON LOCAL SCHOOLS BOARD OF EDUCATION**

At this time, all Bids will be opened at Dixie High School Library and read aloud. The Contract Documents were prepared by **ANDREW CIRCLE ARCHITECT LLC, 320 E MAIN ST TROY OHIO, 45373** Cell: (937) 623-0251 Email: [circleas@gmail.com](mailto:circleas@gmail.com).

Bids will be received for:

<u>Trade</u>		<u>Estimate</u>
General Contract	\$	375,000
Alternate 1	\$	24,000

All communication with regard to this bid must be directed in writing to the aforementioned firm.

This Project is subject to the State Architect's "State of Ohio Standard Requirements for Public Facility Construction" and Equal Employment Opportunity requirements. Bidders are required to be enrolled in and to be in good standing in DFSP approved by the OBWC prior to submitting a Bid.

**DOMESTIC STEEL USE REQUIREMENTS AS SPECIFIED IN OHIO REVISED CODE SECTION 153.011 APPLY TO THIS PROJECT. COPIES OF OHIO REVISED CODE SECTION 153.011 CAN BE OBTAINED FROM ANY OF THE OFFICES OF THE OHIO FACILITIES CONSTRUCTION COMMISSION.**

### **Bid Security**

Each proposal must be accompanied by a completed and signed Section 00 43 13 Bid Security Form OR Bid Guarantee equivalent to the amount of ten (10) percent of the total amount of the bid, by certified check or bid guarantee and contract bond made payable to New Lebanon Local School District. Full Bid Guaranty, Performance and Payment Bonds are required.

### **Schedule & Coordination**

The Contractor will be responsible for all scheduling and coordination, as well as all other services and requirements identified in the Contract Documents. Full Bid Guaranty, Performance and Payment Bonds are required.

The Contract Documents are available by email from Andrew Circle Architect LLC at the following email address: [circleas@gmail.com](mailto:circleas@gmail.com). PDF drawings and specifications will be emailed directly to interested bidders.

# Document 00 21 13 - Instructions to Bidders (General Contracting Project) State of Ohio Standard Requirements for Public Facility Construction

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## ARTICLE 1 - GENERAL INSTRUCTIONS

### 1.1 Applicable Law and Forum

1.1.1 The rights of any Bidder or any party to a subsequent Contract shall be governed by the laws of the state of Ohio and only Ohio courts shall have jurisdiction over any action or proceeding related to the Bid or any subsequent Contract. The Bidder irrevocably consents to such jurisdiction.

### 1.2 Project Scheduling and Coordination

1.2.1 When the Contract Documents refer to a period of time by a number of days, it excludes the first day and includes the last day of the period. If the last day of the period falls on a Saturday, Sunday, or a legal holiday, that day shall be omitted and the period shall end on the next day which is not a Saturday, Sunday, or legal holiday.

1.2.2 The time for completion of the Project indicated on the **Bid Form** is the time for Substantial Completion applicable to the Bidder.

1.2.3 The State may assign all or any portion of its interest in a Contract with one or more of the successful Bidders to another successful Bidder as an agreed condition for an award of the Contract for the respective Bid. The assignment may include, without limitation, the duty to schedule, coordinate, and administer the Contract.

1.2.4 The Contractor is responsible for scheduling the Project, coordinating the Subcontractors, and providing other services identified in the Contract Documents.

1.2.5 By submitting its Bid, the Bidder indicates its understanding that the Contract Sum, based on its Bid and as amended by Change Orders, includes all costs that the Contracting Authority owes the Bidder.

### 1.3 Written Notice

1.3.1 Notice under the Contract Documents shall be validly given if:

1.3.1.1 delivered personally to a member of the organization for whom the notice is intended;

1.3.1.2 delivered, or sent by registered or certified mail, to the last known business address of the organization; or

1.3.1.3 sent by facsimile, email, or web-based project management software, provided the original signed document is delivered within 3 business days after the date of the electronic transmission.

1.3.2 Notices provided to one Project Participant from another shall be simultaneously copied to the prospective Bidders, the Owner, the Contracting Authority, and the A/E.

## ARTICLE 2 - BIDDING PROCEDURES

### 2.1 Examination of Contract Documents and the Site

2.1.1 Before submitting a Bid, the Bidder shall examine all Contract Documents, including, but not limited to, the Drawings, Specifications, and Addenda for all divisions of Work for the Project, noting in particular all requirements that may affect its Work in any way.

**2.1.2** The Bidder's failure to become acquainted with the extent and nature of Work required to complete any portion of the Work in conformity with the requirements of the Contract Documents, shall not be a basis for additional compensation.

**2.1.3** Before submitting a Bid, the Bidder should not only examine and evaluate the Site and related Project conditions where the Work will be performed, but shall also consider when the Work will be performed including, but not limited to, the following:

**2.1.3.1** the condition, layout, and nature of the Site and surrounding area;

**2.1.3.2** the availability and cost of labor;

**2.1.3.3** the availability and cost of materials, supplies, and equipment;

**2.1.3.4** the cost of temporary utilities required in the Bid;

**2.1.3.5** the cost of any permit or license required by a local or regional authority having jurisdiction over the Project;

**2.1.3.6** the usual weather conditions of the Project location;

**2.1.3.7** conditions bearing upon transportation, disposal, handling, and storage of equipment, materials, and waste; and

**2.1.3.8** subsurface and concealed physical conditions and related information provided in the Contract Documents.

## **2.2 Pre-Bid Meeting**

**2.2.1** The Bidder is encouraged to attend the pre-bid meeting, where the A/E, the Contracting Authority, and the Owner will receive questions regarding the Contract Documents. If not given in **Document 00 10 00 - Solicitation**, the A/E shall issue notice of the time and place of any pre-bid meeting to each registered Plan Holder.

**2.2.2** The A/E shall prepare minutes of the pre-bid meeting for the Project record. If questions raised by the prospective Bidders require changes to, or clarifications of, the Contract Documents, the A/E shall issue the changes by written Addendum, along with a list of pre-bid meeting attendees.

**2.2.3** Additional compensation shall not be based upon the Bidder's failure to attend the pre-bid meeting, which results in the Bidder's incomplete knowledge and familiarity of the Project requirements.

## **2.3 Request for Interpretation**

**2.3.1** If the Bidder finds any perceived ambiguity, conflict, error, omission, or discrepancy within the Contract Documents, including the Drawings, Specifications, and Addenda, or between any of the Contract Documents and Applicable Law, the Bidder shall submit a written Request for Interpretation ("RFI") to the A/E for an interpretation or clarification.

**2.3.1.1** The Bidder is responsible for prompt delivery of the RFI.

**2.3.1.2** The A/E shall respond to RFIs received more than 7 days before the bid opening.

**2.3.2** The A/E shall issue Addenda in response to RFIs that modify or clarify the Contract Documents. Any Addenda issued within 72 hours before any bid opening (excluding Saturdays, Sundays, and legal holidays) shall extend the bid opening date by 7 days pursuant to **Section 3.3.1**.

**2.3.2.1** The Addenda may be delivered via facsimile or e-mail, posted to a web or FTP site, or otherwise furnished to each registered Plan Holder.

**2.3.3** Any interpretation or clarification of the Contract Documents made by any Person other than the A/E, in any manner other than a written Addendum, shall not be binding, and the Bidder shall not rely upon the interpretation or clarification.

**2.3.4** The successful Bidder shall not be compensated for a claim alleging insufficient data, incomplete, ambiguous, conflicting, or erroneous Contract Documents or proposed Contract Documents, or assumed conditions regarding the nature, extent, or character of the Work, if the Bidder did not submit a related RFI prior to the bid opening.

## **2.4 Basis of Design and Acceptable Components**

**2.4.1** The Contract Documents may list components produced by specific manufacturers to denote kind, quality, or performance requirements.

**2.4.2** The component listed first is the Basis of Design Component.

**2.4.3** Other listed components are Acceptable Components.

**2.4.3.1** If the Bidder includes an Acceptable Component in its Bid, the Bidder is responsible for the costs of coordination and modification required.

## **2.5 Substitutions Prior to Bid Opening**

**2.5.1** If the Bidder proposes to use an article, device, material, equipment, form of construction, fixture, or item other than the Basis of Design or Acceptable Components named in the Specifications, the Bidder shall certify that the proposed item is equal in quality and all aspects of performance and appearance, to the item specified.

**2.5.1.1** If approval of a Substitution requires changes to the Contract Documents or affects the work of other trades, the Bidder is responsible for the additional costs, including, but not limited to, changes to the design by the A/E.

**2.5.2** The Bidder shall submit its request for Substitution to the A/E no later than 10 days prior to the bid opening, which must include:

**2.5.2.1** the name and complete description of the proposed Substitution, including Drawings, performance and test data, and other information necessary for a complete evaluation; and

**2.5.2.2** a statement setting forth any changes that the Proposed Substitution will require in the Contract Documents or the Project.

**2.5.3** If the A/E approves the Proposed Substitution, the A/E shall issue an Addendum.

**2.5.4** If the A/E does not approve the Proposed Substitution, the A/E shall inform the Bidder of its decision, which is final. The A/E may reject a proposed Substitution because the Bidder failed to provide sufficient information to enable the A/E to completely evaluate the Proposed Substitution without causing a delay in the scheduled bid opening.

**2.5.5** Proposed Substitutions received by the A/E less than 10 days prior to the bid opening shall not be considered.

## **2.6 Bid Form**

**2.6.1** Each Bid shall be submitted on the **Bid Form** and sealed in an envelope clearly marked as containing a Bid, indicating the Contracting Authority's Project number and name, and the date and time of the bid opening on the envelope. Refer to **Section 3.1.2** for requirements related to envelope markings.

**2.6.1.1** Any change, alteration, omission, or addition in the wording of the **Bid Form** shall cause the Bid to be rejected as non-responsive.

**2.6.1.2** All pages of the **Bid Form**, including a completed "Bidder Affirmation and Disclosure" page acknowledging that the Bidder affirms, understands, and will abide by the requirements of Executive Order 2019-12D, and a completed "Commitment to Participate in the EDGE Business Assistance Program" page, shall be submitted with the Bid. Failure to do so may cause the Bid to be rejected as non-responsive.

**.1** If the names, locations, and service locations of Subcontractors are not known at the time of the Bid Opening, the Bidder must provide the information requested with its **Subcontractor and Material Supplier Declaration** form.

**2.6.1.3** Unless the Bidder withdraws the Bid as provided in **Article 4**, the Bidder is required to comply with all requirements of the Contract Documents, regardless of whether the Bidder had actual knowledge of the requirements and regardless of any statement or omission made by the Bidder that might indicate a contrary intention.

**2.6.2** The Bidder shall fill in all relevant blank spaces on the **Bid Form** by printing in ink or by typewriting, and not in pencil.

**2.6.2.1** The Bidder shall show all bid amounts in both words and figures. In the case of a conflict between the words and figures, the amount shown in words shall govern, where the words are not ambiguous. When the Bidder's intention and the meaning of the words are clear, omissions, or misspellings of words shall not render the words ambiguous.

**2.6.2.2** The Bidder shall initial alteration or erasure of items filled in on the **Bid Form**.

**2.6.3** If the Bidder is a corporation, partnership, or sole proprietorship, an officer, partner or principal of the Bidder shall print or type the legal name of the Bidder on the line provided, and sign the **Bid Form**. If the Bidder is a joint venture, an officer, partner or principal, as applicable, of each member of the joint venture shall print or type the legal name of the applicable member on the line provided, and sign the **Bid Form** on behalf of that member. All signatures must be original.

## 2.7 Allowances

**2.7.1** If Allowances are provided on the **Bid Form**, the amount of each Allowance shall be included in the Base Bid amount. Allowances shall be used solely for the purpose of determining the adjustment to the Contract Sum for the difference between the amount of the Allowance and the actual cost of the related Work provided. Allowances shall not include the Contractor's Fee.

## 2.8 Unit Prices

**2.8.1** If Unit Prices are requested on the **Bid Form**, the amount of the scheduled quantities shall be included in the Base Bid amount. Unit prices shall be used solely for the purpose of determining the adjustment to the Contract Sum for the difference between the estimated quantities on the **Bid Form** and the actual quantities provided.

**2.8.2** Unit Prices shall include all materials, equipment, labor, delivery, installation, and any other cost or expense, in connection with, or incidental to, the performance of that portion of the Work. Unit Prices shall not include the Contractor's Fee on account of the associated Unit Price Work. The Bidder shall submit Unit Prices for all items listed.

## 2.9 Alternates

**2.9.1** If an Alternate is listed on the **Bid Form**, the Bidder shall fill in the applicable blank with an increased or decreased bid amount and indicate which by circling the word "ADD" or the word "DEDUCT" as applicable. The Contracting Authority reserves the right to accept or reject any or all bid amounts for Alternates, in whole or in part, and in any order.

**2.9.1.1** If no change in the bid amount is required, indicate "No Change" or "\$0."

**2.9.1.2** Failure to make an entry or an entry of "No Bid," "N/A," or similar entry on any Alternate shall cause the Bid to be rejected as non-responsive if that Alternate is selected.

**2.9.1.3** Failure to indicate a negative number by circling "DEDUCT," preceding the number by a minus sign, or enclosing the number in parentheses will indicate the Bidder's intent to increase the Base Bid by the amount entered in the applicable blank.

**2.9.1.4** If an Alternate is not selected, an entry as listed in **Section 2.9.1.2** on that Alternate shall not, by itself, render a Bid non-responsive.

## 2.10 Submittals with Bid Form

**2.10.1** The Contracting Authority shall reject a Bid as non-responsive if the Bidder fails to submit the following with the Bid Form in a sealed envelope:

**2.10.1.1** A Bid Guaranty as provided in **Article 5**, meeting the requirements of Ohio Revised Code ("ORC") Sections 153.54 and 153.571.

**2.10.2** If the apparent low Bidder does not submit a valid Power of Attorney of the agent signing for the Surety with its Bid, the Contracting Authority shall direct the apparent low Bidder to deliver a valid and appropriate Power of Attorney to the Contracting Authority within a period determined by the Contracting Authority. The Contracting Authority shall not enter into a Contract without a valid Power of Attorney.

**2.10.3** The Bidder is encouraged to submit background information with its Bid using the **Bidder's Qualifications** form and including, but not limited to, the information listed in this **Section 2.10**. If the apparent low Bidder does not submit the **Bidder's Qualifications** form and related information with its Bid, the Bidder shall provide it upon request in accordance with **Section 3.5.4**, including, but not limited to:

**2.10.3.1** the overall experience of the Bidder, including number of years in business under present and former business names;

**2.10.3.2** a complete listing of all the Bidder's ongoing construction projects and a listing of construction projects which are similar in cost and type to the Project completed by the Bidder in the last 5 years. Include information of the scope of work and value of each contract, a description of Encouraging Diversity Growth and Equity ("EDGE") participation and performance, and a project name/contact Person/address/phone number for the owner and the architect or engineer for each project;

**2.10.3.3** a Certificate of Compliance with Affirmative Action Programs, issued pursuant to ORC Section 9.47, by the Equal Opportunity Coordinator of the Department of Administrative Services;

**2.10.3.4** a complete listing of Affirmative Action and EDGE program violations in the last 5 years;

**2.10.3.5** a complete listing of Prevailing Wage, EPA, OSHA, or other regulatory entity issues or violations in the last 5 years;

- 2.10.3.6** a complete listing of judgments, claims, arbitration proceedings or suits pending or outstanding in the last 5 years;
- 2.10.3.7** a complete listing of Drug-Free Workplace Program and Drug-Free Safety Program (“DFSP”) violations in the last 5 years;
- 2.10.3.8** upon request of the Contracting Authority, the apparent low Bidder shall submit the following information, which is not a public record under ORC Section 149.43; and shall remain confidential, except under proper order of a court:
- .1** an annual financial statement prepared within the 12 months prior to the bid opening by an independent licensed accounting firm; and the name, address, contact Person, and phone number of the bank normally used by the Bidder for its primary banking; or
  - .2** a financial report generated within 30 days prior to the bid opening from Standard and Poor, Dun and Bradstreet or a similar company acceptable to the Contracting Authority documenting the financial condition of the Bidder; and the name, address, contact Person, and phone number of the bank normally used by the Bidder for its primary banking.
- 2.10.3.9** a description of the Bidder’s relevant facilities and major equipment, whether leased or owned;
- 2.10.3.10** a description of the management experience of the Bidder’s project manager(s) and superintendent(s) and a comprehensive resume for each;
- 2.10.3.11** a description of the EDGE-certified Business Enterprises the Bidder proposes as Subcontractors and Material Suppliers for this Project by attaching a fully completed EDGE Affidavit for each EDGE-certified Business Enterprise;
- 2.10.3.12** to support a Bond, a current and signed Certificate of Compliance issued by the Ohio Department of Insurance, showing the Surety is licensed to do business as a surety in Ohio;
- 2.10.3.13** a current Ohio Workers' Compensation Certificate;
- 2.10.3.14** if the Bidder is a foreign corporation not incorporated under the laws of Ohio, a Certificate of Good Standing from the Ohio Secretary of State; or, if the Bidder is a foreign person or partnership, evidence that the Bidder filed, with the Ohio Secretary of State, a Power of Attorney designating the Ohio Secretary of State as the Bidder's agent for the purpose of accepting service of summons in any action brought under ORC Section 153.05 or under ORC Sections 4123.01 to 4123.94, inclusive;
- 2.10.3.15** evidence that the Bidder is enrolled in, and in good standing in, a DFSP approved by the Ohio Bureau of Workers’ Compensation (“OBWC”); and
- 2.10.3.16** any other data or information which the A/E may request concerning the responsibility of the Bidder, including a complete list of major Subcontractors with an estimated contract value of \$200,000 or more, which the Bidder proposes to employ on the Project.

## **2.11 Changes in the Bid Amount**

- 2.11.1** Any change to a previously submitted Bid shall be in writing and received by the Contracting Authority before the time scheduled for the bid opening.
- 2.11.2** Changes shall provide an amount to be added to, or subtracted from, the bid amount, so that the final bid amount may be determined only after the sealed envelope is opened.
- 2.11.3** If the Bidder's written instruction reveals the bid amount in any way prior to the bid opening, the Contracting Authority may, in its sole discretion, reject the Bid as non-responsive.

## **ARTICLE 3 - BID OPENING AND EVALUATION**

### **3.1 Delivery of Bid**

- 3.1.1** The Bidder shall submit its Bid to the Contracting Authority at the location indicated in **Document 00 10 00 - Solicitation** prior to the time scheduled for the bid opening.
- 3.1.2** If the sealed bid envelope is enclosed in another envelope for the purpose of delivery, the exterior envelope shall also be clearly marked as containing a Bid with the Project name and Project number, construction trade of the Bid, and the date and time of the bid opening shown on the envelope.

**3.1.3** Bids that arrive at the location designated in **Document 00 10 00 - Solicitation** after the time set for the bid opening shall not be opened or considered.

### **3.2 Bid Opening**

**3.2.1** Sealed Bids shall be received at the location designated in **Document 00 10 00 - Solicitation** until the time stated when all Bids shall be opened, read aloud, and the tabulation made public.

**3.2.2** The public opening and reading of Bids is for informational purposes only and is not to be construed as an acceptance or rejection of any Bid submitted.

**3.2.3** The contents of the bid envelope are public records and open for inspection, upon request, at any time after the bid opening, except for any information that is not defined as a public record under Ohio law.

### **3.3 Bid Opening Extension**

**3.3.1** If an Addendum is issued within 72 hours prior to the published time for the bid opening, excluding Saturdays, Sundays and legal holidays, the bid opening shall be extended 7 days. If the Contracting Authority approves, the bid opening may be extended for more than 7 days, and consideration for additional advertising may be recommended.

**3.3.2** As part of issuing any Addendum earlier than 72 hours prior to the published time for the bid opening, excluding Saturdays, Sundays and legal holidays, only the Contracting Authority may approve a revised bid opening date or additional advertising.

### **3.4 Bid Evaluation Criteria**

**3.4.1** The Contracting Authority reserves the right to accept or reject any or all Bids, in whole or in part, and reserves the right to award the Contract to any remaining Bidder the Contracting Authority determines, in its sole discretion, to have submitted the lowest responsive and responsible Bid.

**3.4.2** The Contracting Authority reserves the right to accept or reject any or all Alternates. Alternates may be accepted or rejected in any order.

**3.4.3** If any Bidder has engaged in collusive bidding, the Contracting Authority shall reject that Bidder's Bid as non-responsible for the Contract. A collusive bidder may also be debarred from future State Contracts.

**3.4.4** The Contracting Authority reserves the right to waive, or to allow any Bidder a reasonable opportunity to cure a minor irregularity or technical deficiency in a Bid, provided the irregularity or deficiency does not affect the bid amount, or otherwise give the Bidder a competitive advantage. Noncompliance with any material requirements of the Contract Documents shall cause a Bid to be rejected as non-responsive.

**3.4.5** If, in the opinion of the Owner, the award of the Contract to the lowest Bidder is not in the best interest of the State, with the written consent of the Contracting Authority, the Owner may accept, in its discretion, another Bid so opened, or the Contracting Authority may reject all Bids and advertise for other Bids. The advertisement shall be for the period, in the form, and in the publications directed by the Contracting Authority.

### **3.5 Bid Evaluation Procedure**

**3.5.1** The Contract shall be awarded to the lowest responsive and responsible Bidder as determined in the discretion of the Contracting Authority, or all Bids may be rejected in accordance with Applicable Law.

**3.5.1.1** In determining which Bid is the lowest, the Contracting Authority shall consider the Base Bid and the bid amounts for any Alternate, or Alternates, which the Owner decides, in its sole discretion, to accept.

**3.5.1.2** The total of the bid amounts for the accepted Alternate(s) shall be added to, or deducted from, the Base Bid, as applicable, for determining the lowest Bidder.

**3.5.1.3** If two Bidders submit the same bid amount and both are determined to be responsive and responsible, the Contracting Authority may select one Bidder by the flip of a coin, which shall be conducted in the presence of both Bidders and shall be final.

**.1** If one of the Bidders refuses to participate in, or fails to be present at, the flip of a coin, the remaining Bidder shall be selected.

**3.5.2** A Bidder for a Contract shall be considered responsive if the Bidder's Bid responds to the Contract Documents in all material respects and contains no irregularities or deviations from the Contract Documents that would affect the amount of the Bid or otherwise give the Bidder a competitive advantage.

**3.5.2.1** A Bid shall be rejected as non-responsive if the Bid contains a Bid Guaranty executed by a Surety not licensed in Ohio or a Bid Guaranty that is otherwise determined to be insufficient by the Contracting Authority.

**3.5.2.2** The Bidder may be subject to a Pre-Award Affirmative Action Compliance Review pursuant to OAC Section 123:2-5-01 including a review of the Bidder's employment records and an on-site review.

- .1** The Bidder must submit the information requested no later than 10 days after receipt of the request. Failure to timely respond to this request for records may result in the Bidder being found non-responsive.

**3.5.2.3** If the lowest Bidder is non-responsive, the Bidder shall be notified according to **Section 3.6**.

**3.5.3** In determining whether a Bidder is responsible, factors to be considered include, without limitation:

**3.5.3.1** preferences required by law, where applicable;

**3.5.3.2** the experience of the Bidder;

**3.5.3.3** the financial condition of the Bidder;

**3.5.3.4** the conduct and performance of the Bidder on previous Contracts, including compliance with Equal Employment Opportunity in the Construction Industry Administrative Rules, OSHA and Prevailing Wage laws, and demonstration of good faith effort to participate in the EDGE Business Development program, or actual participation in the EDGE Business Development program, or both, as indicated in the ORC and the Ohio Administrative Code;

**3.5.3.5** the facilities of the Bidder;

**3.5.3.6** the management skills of the Bidder, including the capability of the Bidder to construct and manage the entire Project, including but not limited to the plumbing, fire protection, heating, ventilating and air conditioning, and electrical branches or classes of the Work; and

**3.5.3.7** the Bidder's ability to execute the Contract properly, including past performance of the Bidder and the Subcontractors that the Bidder proposes to use on the Project.

**3.5.4** The A/E shall obtain from the lowest responsive Bidder any information the Contracting Authority determines appropriate to consideration of factors showing responsibility. If the lowest responsive Bidder is responsible, the Contract shall be awarded to that Bidder, unless all Bids are rejected. The Bidder shall provide all requested information within 3 days of a request from the A/E, or a longer period, if the Contracting Authority consents in writing.

**3.5.5** If the lowest responsive Bidder is not responsible, the Contracting Authority shall evaluate the next lowest Bidder according to the procedures set forth in this **Section 3.5** until the Contract is awarded, all Bids are rejected, or all responsive Bidders are determined to be not responsible.

### **3.6 Rejection of Bid**

**3.6.1** If the lowest Bidder is not responsive or responsible, the Contracting Authority shall reject the Bid and notify the Bidder in writing by Certified Mail of the finding and the reasons for the finding.

#### **3.6.2 Ten Percent Rule.**

**3.6.2.1** If the lowest responsive and responsible Bid for the Contract, including the Base Bid and accepted Alternates if any, exceeds an amount 10 percent greater than the published Estimated Construction Cost for the Contract, the Contracting Authority shall reject all Bids.

**3.6.3** A Bidder notified in accordance with **Section 3.6.1** may object to its rejection by filing a written protest, which must be received by the Contracting Authority within 5 days of the notification provided pursuant to **Section 3.6.1**.

**3.6.4** Upon receipt of a timely protest, the Contracting Authority shall meet with the protesting Bidder to hear its objections. ORC Chapter 119 administrative hearing requirements are not applicable to the bid protest meeting.

**3.6.4.1** No Contract award shall become final until after the Contracting Authority has met with all Bidders who have timely filed protests and the award of the Contract is affirmed by the Contracting Authority.

**3.6.4.2** If all protests are rejected, the Contract shall be awarded to the lowest responsive and responsible Bidder, or all Bids shall be rejected.

### **3.7 Notice of Intent to Award**

**3.7.1** The Contracting Authority shall notify the apparent successful Bidder that upon satisfactory compliance with all conditions precedent for execution of the Contract, within the time specified, the Bidder shall be awarded the Contract.

**3.7.2** The Contracting Authority reserves the right to rescind any Notice of Intent to Award if the Contracting Authority determines it issued the Notice of Intent to Award in error, or if the conditions precedent for execution of Contract set forth in **Article 6** are not met.

## **ARTICLE 4 - WITHDRAWAL OF BID**

### **4.1 Withdrawal prior to Bid Opening**

**4.1.1** A Bidder may withdraw a Bid after the Contracting Authority receives the Bid, provided the Bidder makes a request in writing and the Contracting Authority receives the request prior to the time of the bid opening, as determined by the Contracting Authority.

### **4.2 Withdrawal after Bid Opening**

**4.2.1** The Bid shall remain valid and open for acceptance for a period of 60 days after the bid opening; provided, however, a Bidder may withdraw a Bid from consideration after the bid opening if the bid amount was substantially lower than the amounts of other Bids, providing the Bid was submitted in good faith, and the reason for the bid amount being substantially lower was a clerical mistake, as opposed to a judgment mistake, and was actually due to an unintentional and substantial arithmetic error or an unintentional omission of a substantial quantity of Work, labor, or material made directly in the compilation of the bid amount.

**4.2.1.1** Notice of a request to withdraw a Bid shall be made in writing filed with the Contracting Authority within 2 business days after the bid opening. The Contracting Authority reserves the right to request the Bidder to submit evidence substantiating the Bidder's request to withdraw the Bid.

**4.2.1.2** No Bid may be withdrawn under **Section 4.2.1** which would result in awarding a Contract involving the same item on another Bid to the same Bidder.

**4.2.2** If a Bidder withdraws its Bid under **Section 4.2.1**, the Contracting Authority may award the Contract to the next lowest responsive and responsible Bidder, or reject all Bids and advertise for other Bids. In the event the Contracting Authority advertises for other Bids, the withdrawing Bidder shall pay the costs, in connection with the re-bidding, of printing new Contract Documents, required advertising, and printing and mailing of notices to prospective Bidders, if the Contracting Authority finds that these costs would not have been incurred but for the withdrawal.

**4.2.3** A Bidder may withdraw the Bidder's Bid at any time after the 60-day period described in **Section 4.2.1** by giving written notice to the Contracting Authority.

### **4.3 Refusal to Accept Withdrawal**

**4.3.1** If the Contracting Authority contests the right of a Bidder to withdraw a Bid pursuant to **Section 4.2.1**, a hearing shall be held within 10 days after the bid opening and the Contracting Authority shall issue an order allowing or denying the claim of this right within 5 days after the hearing is concluded. The Contracting Authority shall give the withdrawing Bidder timely notice of the time and place of the hearing.

**4.3.1.1** The Contracting Authority shall make a stenographic record of all testimony, other evidence, and rulings on the admissibility of evidence presented at the hearing. The Bidder shall pay the costs of the hearing.

**4.3.1.2** Pursuant to ORC Section 119.12, the Bidder may appeal the order of the Contracting Authority required by **Section 4.3.1**.

### **4.4 Refusal to Perform**

**4.4.1** In the event the Contracting Authority denies the request for withdrawal and the Bidder refuses to perform the Contract, the Contracting Authority may reject all Bids or award the Contract to the next lowest responsive and responsible Bidder.

### **4.5 Effect of Withdrawal**

**4.5.1** A Bidder, who is permitted to withdraw a Bid under **Section 4.2.1**, shall not supply material or labor to, or perform a subcontract or other work for, the Person to whom the Contract is awarded; or otherwise benefit, directly or indirectly, from the performance of the Project for which the withdrawn Bid was submitted; without the Contracting Authority's prior written consent.

## ARTICLE 5 - BID GUARANTY AND BOND

### 5.1 Bid Guaranty

**5.1.1** The Bidder shall submit a Bid Guaranty with the Bidder's Bid, payable to the Contracting Authority, in the form of either:

**5.1.1.1** the signed **Document 00 43 13 - Bid Security Form** contained in the Contract Documents for the amount of the Base Bid plus all additive Alternates; or

**5.1.1.2** a certified check, cashier's check, or letter of credit, for 10 percent of the Base Bid, plus all additive Alternates – a letter of credit shall expressly provide that it is revocable only by the Contracting Authority.

**5.1.2** The Bid Guaranty shall be in form and substance satisfactory to the Contracting Authority and shall serve as an assurance that upon acceptance of the Bid, the Bidder shall comply with all conditions precedent for Contract execution, within the time specified by the Contracting Authority.

**5.1.3** If the blank line on the **Bid Security Form** is not filled in, the penal sum shall be the full amount of the Base Bid plus all additive Alternates. If the blank line is filled in, the amount shall not be less than the full amount of the Base Bid plus all additive Alternates, stated in dollars and cents. A percentage is not acceptable. In the event the blank line is filled in for an amount less than the full amount of the Base Bid plus all additive alternates, the Bid shall be rejected as non-responsive.

**5.1.4** An authorized agent must sign the **Bid Security Form**, and the Bidder shall provide a Power of Attorney from the Surety. A Surety authorized by the Ohio Department of Insurance to transact business in Ohio must issue the **Bid Security Form**.

**5.1.5** The requirements of ORC Section 3901.86 may be applicable requiring an Ohio resident agent countersign the **Bid Security Form**. The Bidder shall determine the applicability of this provision.

**5.1.6** Bid Guaranties in the form of a certified check, cashier's check, or letter of credit shall be returned to unsuccessful Bidders 60 days after the bid opening. Bid Guaranties in the form of a certified check, cashier's check, or letter of credit shall be returned to the successful Bidder upon providing **Document 00 61 13 - Performance and Payment Bond Form** from a Surety satisfactory to the Contracting Authority.

### 5.2 Forfeiture of Bid Guaranty

**5.2.1** If for any reason, other than as authorized by **Section 4.2.1** or **Section 5.3**, the Bidder fails to execute the Agreement, and the Contracting Authority awards the Contract to another Bidder, which the Contracting Authority determines is the lowest responsive and responsible Bidder:

**5.2.1.1** The Bidder who failed to execute the Agreement is liable to the State for the difference between its Bid and the Bid of the next lowest responsive and responsible Bidder, or for a penal sum not to exceed ten percent of the bid amount, whichever is less.

**5.2.2** If the Contracting Authority then awards a Contract to another Bidder, which the Contracting Authority determines is the lowest responsive and responsible Bidder and that Bidder fails or refuses to execute the Agreement:

**5.2.2.1** The liability of the lowest responsive and responsible Bidder shall be the difference between the bid amount of the lowest responsive and responsible Bidder and another Bidder which the Contracting Authority determines is the lowest responsive and responsible Bidder, except as provided in **Section 5.3**, but not in excess of the liability specified in **Section 4.2.2**.

**5.2.2.2** The liability on account of an award to the lowest responsive and responsible Bidder beyond the third lowest responsive and responsible Bidder shall be determined in like manner.

**5.2.3** If the Contracting Authority does not award the Contract to another Bidder under **Section 5.2.2**, but submits the Project for re-bidding:

**5.2.3.1** The Bidder failing or refusing to execute the Agreement is liable to the State for a penal sum not to exceed 10 percent of the Bidder's bid amount or the costs in connection with the resubmission of printing new Contract Documents, required advertising, and printing and mailing notices to prospective Bidders, whichever is less, except as provided in **Section 5.3**.

### 5.3 Exception to Forfeiture

**5.3.1** A Bidder for a Contract with the State costing less than \$500,000 may withdraw its Bid from consideration if its Bid for another Contract with the State for less than \$500,000 has already been accepted if:

**5.3.1.1** the Bidder certifies in good faith that the total amount of its current contracts is less than \$500,000; and

**5.3.1.2** the Bidder's Surety certifies in good faith that the Bidder is unable to perform the subsequent Contract because such performance would exceed the Bidder's bonding capacity.

**5.3.2** If a Bid is withdrawn pursuant to **Section 5.3.1**:

**5.3.2.1** the Contracting Authority may award the Contract to another Bidder which the Contracting Authority determines is the lowest responsive and responsible Bidder or reject all Bids and submit the Project for re-bidding; and

**5.3.2.2** neither the withdrawing Bidder nor the Bidder's Surety shall be liable for the difference between the Bidder's Bid and that of the next lowest responsive and responsible Bidder for a penal sum, or for the costs of printing new Contract Documents, required advertising, and printing and mailing notices to prospective Bidders.

### 5.4 Bond

**5.4.1** Prior to signing the Agreement, the Bidder shall provide the Bond required by law in form and substance satisfactory to the Contracting Authority, and from a Surety licensed to do business in the state of Ohio and satisfactory to the Contracting Authority.

**5.4.1.1** If the Bidder provided **Document 00 43 13 - Bid Security Form**, described in **Section 5.1.1.1**, as its Bid Guaranty then that form shall be the Bond.

**5.4.1.2** If the Bidder provided another form of Bid Guaranty, described in **Section 5.1.1.2**, then **Document 00 61 13 - Performance and Payment Bond Form**, described in **Section 5.1.6**, shall be the Bond.

**5.4.1.3** The Bidder shall not be required to provide both forms described above.

**5.4.2** The Bond must be in the full amount of the Contract to indemnify the State against all direct and consequential damages suffered by failure of the Contractor to perform according to the provisions of the Contract and in accordance with the Plans, Specifications, details, and bills of material therefore and pay all lawful claims of Subcontractors, Material Suppliers, and laborers for labor performed or materials furnished in performing and completing the Contract.

## ARTICLE 6 - CONTRACT AWARD AND EXECUTION

### 6.1 Conditions Precedent for Execution of Contract

**6.1.1** The successful Bidder must submit the items in this **Section 6.1** to the Contracting Authority before executing the Agreement.

**6.1.2** Bond, and to support the Bond, a Certificate of Compliance issued by the Ohio Department of Insurance, showing the Surety is licensed to do business in the state of Ohio.

**6.1.3** Ohio Workers' Compensation Certificate

**6.1.4** Certificate of Compliance with Affirmative Action Programs, issued by the Equal Opportunity Coordinator. The form must be submitted through the Ohio Business Gateway: <http://business.ohio.gov/efiling/>.

**6.1.5** Certificate of Insurance (ACORD form is acceptable) and copy of additional insured or loss payee endorsement. The Contracting Authority reserves the right to request and receive a certified copy of the Contractor's insurance policies.

**6.1.6** If a Bidder is a foreign corporation (e.g., not incorporated under the laws of Ohio) it must submit a Certificate of Good Standing from the Ohio Secretary of State showing the right of the Bidder to do business in the state of Ohio.

**6.1.7** If a Bidder is an individual or partnership, nonresident of the State, it must submit a Power of Attorney designating the Ohio Secretary of State as the Bidder's agent for accepting service of summons in any action brought under ORC Section 153.05 or under ORC Sections 4123.01 to 4123.94, inclusive.

**6.1.8** If the Contract includes plumbing; electrical; hydronics; refrigeration; and heating, ventilating and air conditioning ("HVAC") Work, the Contractor or its Subcontractors must submit proof of current licensing pursuant to Applicable Law.

**6.1.9** Evidence that the Bidder is enrolled in, and in good standing in, a DFSP approved by the OBWC.

**6.1.10** Required Notice of Unresolved Findings for Recovery.

**6.1.10.1** By submitting its Bid, the Bidder warrants that it is not subject to an unresolved findings for recovery under ORC Section 9.24. ORC Section 9.24 prohibits the State from awarding a Contract to any Bidder against whom the Auditor of State has issued a finding for recovery if the finding for recovery is unresolved at the time of award. If the Contract is awarded to a Bidder subject to an unresolved finding for recovery under ORC Section 9.24, the Contract is void on its face and the Contractor shall immediately repay to the Owner any funds paid under the Contract.

~~**6.1.11** EDGE Program – Supporting Documentation Required.~~

~~**6.1.11.1** The Bidder shall provide evidence acceptable to the Contracting Authority of the Bidder's participation in the EDGE Program by contracting with EDGE-certified Business Enterprise(s) for the Project by submitting a fully completed **EDGE Affidavit** for each EDGE-certified Business Enterprise, by requesting a waiver or partial waiver of the advertised EDGE Program participation goal for the Project on the Bidder's company letterhead including full documentation of the Bidder's good faith effort to contract with EDGE-certified Business Enterprise(s) for this Project, or both.~~

**6.1.12** Registered Apprentices – Supporting Documentation Required.

**6.1.12.1** The Bidder shall provide evidence acceptable to the Contracting Authority of the registration of all apprentices who the Bidder or its Subcontractors intend to employ on the Project pursuant to ORC Section 4115.05.

**6.1.13** If the Bidder is a joint venture, it must submit the executed agreement between the joint venturers describing the division of services/work and percentage of contract for each company, and a Power of Attorney which authorizes one or more individuals to bind the joint venture and each individual joint venturer to Contract Modifications.

## **6.2 Non-compliance with Conditions Precedent**

**6.2.1** The award of the Contract and execution of the Agreement require the Contractor to comply with:

**6.2.1.1** all conditions precedent for execution of the Contract within 10 days of the date of the Notice of Intent to Award; and

**6.2.1.2** the **Bidder's Qualifications** form, including a fully completed EDGE Affidavit for each EDGE-certified Business Enterprise, not previously provided within 3 business days of receiving the Contracting Authority's request.

**6.2.2** Non-compliance with the conditions precedent for execution of the Contract as stated in **Section 6.1** within the timelines stated in **Section 6.2.1** following the date of the Notice of Intent to Award shall be sufficient cause to permit the Contracting Authority to cancel the Notice of Intent to Award, for the Bidder's lack of responsibility and award the Contract to another Bidder, which the Contracting Authority determines is the lowest responsive and responsible Bidder; or the Contracting Authority may re-bid the Work at its sole discretion.

**6.2.3** The Contracting Authority may extend the time for complying with the conditions precedent for execution of the Contract for good cause. The extension is not a waiver of the conditions precedent for execution of the Contract.

## **6.3 Time Limits**

**6.3.1** The Contracting Authority's failure to award the Contract and execute the Agreement within 60 days of the bid opening invalidates the entire bid process and all Bids submitted, unless the time is extended by written consent of the apparent lowest responsive and responsible Bidder and the Contracting Authority.

**6.3.1.1** If the Contracting Authority awards the Contract within 60 days of the bid opening, increases in material, labor, and subcontract costs shall be borne by the Bidder.

**6.3.1.2** If failure to execute the Contract within 60 days of the bid opening is due to matters for which the State is solely responsible, the Contractor is entitled to a Change Order authorizing payment of verifiable increased costs in materials, labor, or subcontracts. This increase shall not exceed the difference in price between the successful Bidder and the price of the next lowest responsive and responsible Bidder.

**6.3.1.3** If failure to execute the Contract within 60 days of the bid opening is due to matters for which the Contractor is responsible, the Contracting Authority shall not grant a request for increased costs.

## 6.4 Notice to Proceed

**6.4.1** The Contracting Authority shall issue a Notice to Proceed to the Contractor, which establishes the date for commencement and the calendar days allocated for Substantial Completion. Within 10 days of the date of the Notice to Proceed, or other period as mutually agreed by the Contractor and the Contracting Authority, the Contractor shall furnish the following submittals to the A/E:

**6.4.1.1** Schedule of Values;

**6.4.1.2** preliminary schedule of Shop Drawings and other Submittals;

**6.4.1.3 Subcontractor and Material Supplier Declaration** form, with completed “Bidder Affirmation and Disclosure” forms acknowledging that the Contractor affirms, understands, and will abide by the requirements of Executive Order 2019-12D for Subcontractors that were not identified in the **Bid Form**;

**6.4.1.4** qualifications of proposed project manager(s) and superintendent(s) and a comprehensive resume of each; and

**6.4.1.5** evidence that an authorization agreement for automatic deposit of state warrants has been submitted to Ohio Shared Services using the electronic funds transfer form provided on the Internet at <http://supplier.ohio.gov>.

## ~~6.5 Prevailing Wage Rates~~

~~**6.5.1** The Bidder shall base its Bid upon the prevailing rates of wages as ascertained by the Ohio Department of Commerce, Wage and Hour Bureau for the Project as provided in ORC Sections 4115.03 through 4115.14. Refer to Document 00 73 43 – Wage Rate Requirements for related information and the Project’s prevailing rates of wages with an appropriate ratio of registered apprentices.~~

~~**6.5.2** The Bidder shall not be entitled to an increase in the Contract Sum on account of an increase in prevailing wage rates, except as otherwise provided by Applicable Law. The Bidder is responsible for compliance of its Subcontractors with prevailing wage requirements.~~

~~**6.5.3** Within 10 days of the date of the Notice to Proceed, the Contractor shall provide the Contracting Authority’s Prevailing Wage Coordinator with a schedule of dates during the term of the Contract when the Contractor shall pay wages to its employees for the Project.~~

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**END OF DOCUMENT**

**Document 00 41 13 - Bid Form (General Contracting Project)**  
**State of Ohio Standard Requirements for Public Facility Construction**

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Sealed bids will be received by the **New Lebanon Local School District** at S Fuls Road New Lebanon OH 45345 for:

***New Lebanon Schools – Softball Building***

at

**S Fuls Road**  
**New Lebanon OH, Montgomery Co**

for the

**New Lebanon Local School Board of Education**

The time for Substantial Completion of all Work is **127** consecutive days from the Notice to Proceed.

Having read and examined the proposed Contract Documents prepared by the Architect/Engineer for the above-referenced Project and the following Addenda:

Addendum Number	Date Received
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

The undersigned Bidder proposes to perform all Work for the applicable Contract in accordance with the proposed Contract Documents, for the following sum(s):

**Bid Package 101 – GENERAL CONTRACT**

BASE BID (Including Allowances and Subtotal of Unit Price Extensions above):

ALL LABOR AND MATERIALS, for the sum of \$ \_\_\_\_\_

Sum in words: \_\_\_\_\_

\_\_\_\_\_ and \_\_\_\_\_ /100 dollars.

Alternate 1, Concrete Paving in place of Asphalt Paving (Circle appropriate choice below and insert amount)

If Alternate is accepted, ADD TO / DEDUCT FROM Base Bid: \$ \_\_\_\_\_

Sum in words: \_\_\_\_\_ and \_\_\_\_\_ /100 dollars.

*-- remainder of page left blank intentionally --*

**BIDDER AFFIRMATION AND DISCLOSURE**

Bidder acknowledges that by signing the Bid Form on the Bidder Signature and Information page, that it affirms, understands, and will abide by the requirements of Executive Order 2019-12D. If awarded a Contract, the Bidder will become the Contractor and affirms that both the Contractor and its Subcontractors shall perform no services requested under this Contract outside of the United States.

The Bidder shall provide the locations where services under this Contract will be performed in the spaces provided below or by attachment. Failure to provide this information as part of its Bid may cause the Bidder to be deemed non-responsive and no further consideration will be given to its Bid. If the Bidder will not be using Subcontractors, indicate “Not Applicable” in the appropriate spaces.

- 1. Principal business location of Contractor:

\_\_\_\_\_  
Address City, State, Zip

- 2. Location where services will be performed by Contractor:

\_\_\_\_\_  
Address City, State, Zip

Locations where services will be performed by Subcontractors, if known at time of Bid Opening:

\_\_\_\_\_  
Address City, State, Zip

\_\_\_\_\_  
Address City, State, Zip

\_\_\_\_\_  
Address City, State, Zip

- 3. Location where state data will be stored, accessed, tested, maintained, or backed-up, by Contractor:

\_\_\_\_\_  
Address City, State, Zip

Locations where state data will be stored, accessed, tested, maintained, or backed-up by Subcontractors, if known at time of Bid Opening:

\_\_\_\_\_  
Address City, State, Zip

\_\_\_\_\_  
Address City, State, Zip

\_\_\_\_\_  
Address City, State, Zip

## BIDDER'S CERTIFICATIONS

The Bidder hereby acknowledges that the following representations in this Bid are material and not mere recitals:

1. The Bidder has read and understands the proposed Contract Documents and agrees to comply with all requirements of the proposed Contract Documents, regardless of whether the Bidder has actual knowledge of the requirements and regardless of any statement or omission made by the Bidder, which might indicate a contrary intention.
2. The Bidder represents that the Bid is based upon the Basis of Design and Acceptable Components specified by the proposed Contract Documents.
3. The Bidder has visited the Site, become familiar with local conditions, and has correlated personal observations about the requirements of the proposed Contract Documents. The Bidder has no outstanding questions regarding the interpretation or clarification of the proposed Contract Documents.
4. The Bidder understands that the execution of the Project will require sequential, coordinated, and interrelated operations, which may involve interference, disruption, hindrance, or delay in the progress of the Bidder's Work. The Bidder agrees that the Contract Sum, as amended from time to time, shall cover all amounts due from the State resulting from interference, disruption, hindrance, or delay that is not caused by the State or its agents and employees. The Bidder agrees that any such interference, disruption, hindrance, or delay is within the contemplation of the Bidder and the State and that the Contractor's sole remedy from the State for any such interference, disruption, hindrance, or delay shall be an extension of time in accordance with the proposed Contract Documents.
5. During the performance of the Contract, the Bidder agrees to comply with Ohio Administrative Code ("OAC") Chapters 123:2-3 through 123:2-9 and agrees to incorporate the monthly reporting provisions of OAC Section 123:2-9-01 into all subcontracts on the Project, regardless of tier. The Bidder understands the State's Equal Opportunity Coordinator or the Contracting Authority may conduct pre-award and post-award compliance reviews to determine if the Bidder maintains nondiscriminatory employment practices, maintains an affirmative action program, and is exerting good faith efforts to accomplish the goals of the affirmative action program. For a full statement of the rules regarding Equal Employment Opportunity in the Construction Industry, see OAC Chapters 123:2-1 through 123:2-9.
6. The Bidder and each Person signing on behalf of the Bidder certifies, and in the case of a Bid by a joint venture each member thereof certifies as to such member's entity, under penalty of perjury, that to the best of the undersigned's knowledge and belief: **(a)** the Base Bid, any Unit Prices, and any Alternate bid in the Bid have been arrived at independently without collusion, consultation, communication or agreement, for the purpose of restricting competition as to any matter relating to such Base Bid, Unit Prices or Alternate bid with any other Bidder; **(b)** unless otherwise required by law, the Base Bid, any Unit Prices and any Alternate bid in the Bid have not been knowingly disclosed by the Bidder and shall not knowingly be disclosed by the Bidder prior to the bid opening, directly or indirectly, to any other Bidder who would have any interest in the Base Bid, Unit Prices or Alternate bid; **(c)** no attempt has been made or shall be made by the Bidder to induce any other Person to submit or not to submit a Bid for the purpose of restricting competition.
7. The Bidder understands that the Contract is subject to all the provisions, duties, obligations, remedies and penalties of Ohio Revised Code Chapter 4115 and that the Bidder shall pay any wage increase in the locality during the term of the Contract.
8. The Bidder shall execute the Agreement with the Contracting Authority, if a Contract is awarded on the basis of this Bid, and if the Bidder does not execute the Agreement for any reason, other than as authorized by law, the Bidder and the Bidder's Surety are liable to the State as provided in **Article 5** of the Instructions to Bidders.
9. The Bidder certifies that the upon the award of a Contract, as the Contractor it shall make a good faith effort to ensure that all of the Contractor's employees, while working on the Site, shall not purchase, transfer, use, or possess illegal drugs or alcohol or abuse prescription drugs in any way.

10. The Bidder acknowledges that it read all of the **Instructions to Bidders**, and in particular, **Section 2.10** - Submittals With Bid Form, and by submitting its Bid certifies that it has read the Instructions to Bidders and it understands and agrees to the terms and conditions stated in them.
11. The Bidder agrees to furnish any information requested by the Contracting Authority or Architect/Engineer to evaluate the responsibility of the Bidder.
12. The Bidder agrees to furnish the submittals required by **Section 6.1** of the **Instructions to Bidders** for execution of the Agreement within 10 days of the date of the Notice of Intent to Award.
13. When the Bidder is a corporation, partnership or sole proprietorship, an officer, partner or principal of the Bidder, as applicable, shall print or type the legal name of the Bidder on the line provided, and **sign the Bid Form**.
14. When the Bidder is a joint venture, an officer, partner or principal, as applicable, of each member of the joint venture shall print or type the legal name of the applicable member on the line provided, and **sign the Bid Form**.
15. Bidder acknowledges that by signing the Bid Form on the following Bidder Signature and Information page that it is signing the actual Bid and when submitted as a part of its bid package, shall serve as the Bidder's authorization for the further consideration and activity in the bidding and contract process.
16. All signatures must be original.

*-- remainder of page left blank intentionally --*

**BIDDER SIGNATURE AND INFORMATION**

**Bidder's Authorized Signature:** \_\_\_\_\_

**Please print or type the following:**

Name of Bidder's Authorized Signatory \_\_\_\_\_

Title: \_\_\_\_\_

Company Name: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

Telephone Number: \_\_\_\_\_

Facsimile Number: \_\_\_\_\_

E-Mail Address: \_\_\_\_\_

Where Incorporated: \_\_\_\_\_

Federal Tax Identification Number: \_\_\_\_\_

Date enrolled in an OBWC-approved DFSP (month/date/year): \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_

Contact person for Contract processing: \_\_\_\_\_

President's or Chief Executive Officer's Name / Title: \_\_\_\_\_

**JOINT VENTURE ADDITIONAL BIDDER SIGNATURE & INFORMATION**

**Joint Venture Bidder's Authorized Signature:** \_\_\_\_\_

**Please print or type the following:**

Name of Joint Venture Bidder's Authorized Signatory \_\_\_\_\_

Title: \_\_\_\_\_

Company Name: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

Telephone Number: \_\_\_\_\_

Facsimile Number: \_\_\_\_\_

E-Mail Address: \_\_\_\_\_

Where Incorporated: \_\_\_\_\_

Federal Tax Identification Number: \_\_\_\_\_

Date enrolled in an OBWC-approved DFSP (month/date/year): \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_

Contact person for Contract processing: \_\_\_\_\_

President's or Chief Executive Officer's Name / Title: \_\_\_\_\_

**END OF DOCUMENT**

# Document 00 43 13 - Bid Security Form

## State of Ohio Standard Requirements for Public Facility Construction

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( Form of combined Bid Guaranty and Bond prescribed by Ohio Revised Code Section 153.571 )

KNOW ALL PERSONS BY THESE PRESENTS, that we, the undersigned \_\_\_\_\_,  
\_\_\_\_\_, as Principal,  
and \_\_\_\_\_ as Sureties,  
are hereby held and firmly bound unto \_\_\_\_\_  
\_\_\_\_\_ as Obligee(s), in the penal sum of the dollar amount of the Bid submitted by the Principal  
to the Obligee on \_\_\_\_\_ (date) to undertake the Project known as:

Project Number: \_\_\_\_\_

Project Name: \_\_\_\_\_

Contract Description: \_\_\_\_\_  
(e.g., General Contractor/Trades, Plumbing, HVAC, Electrical)

The penal sum, referred to herein, shall be the dollar amount of the Principal's Bid to the Obligee, incorporating any additive alternate Bids made by the Principal on the date referred to above to the Obligee, which are accepted by the Obligee. In no case shall the penal sum exceed the amount of dollars (\$ \_\_\_\_\_). (If the preceding line is left blank, the penal sum will be the full amount of the Principal's Bid, including add alternates. Alternatively, if completed, the amount stated shall not be less than the full amount of the Bid, including Alternates, in dollars and cents. A percentage is not acceptable.) For the payment of the penal sum well and truly to be made, we hereby jointly and severally bind ourselves, our heirs, executors, administrators, successors and assigns.

THE CONDITION OF THE ABOVE OBLIGATION IS SUCH, that whereas the above-named Principal has submitted a Bid for the above referenced Project;

NOW, THEREFORE, if the Obligee accepts the Bid of the Principal, and the Principal fails to enter into a proper contract in accordance with the Bid, Plans, Specifications, details, and bills of material; and in the event the Principal pays to the Obligee the difference, not to exceed ten percent of the penal sum hereof between the amount specified in the Bid and such larger amount for which the Obligee may in good faith contract with the Bidder determined by the Obligee to be the next lowest responsive and responsible to perform the Work covered by the Bid; or in the event the Obligee does not award the Contract to such next lowest responsive and responsible Bidder and resubmits the Project for bidding, the Principal pays to the Obligee the difference not to exceed ten percent of the penal sum hereof between the amount specified in the Bid, or the costs, in connection with the resubmission, of printing new Contract Documents, required advertising and printing and mailing notices to prospective Bidders, whichever is less, then this obligation shall be null and void, otherwise to remain in full force and effect. If the Obligee accepts the Bid of the Principal, and the Principal, within 10 days after the awarding of the Contract, enters into a proper contract and executes the Agreement Form in accordance with the Contract Documents, including without limitation the Bid, Plans, Specifications, details, and bills of material, which said Contract is made a part of this Bond the same as though set forth herein; and

NOW ALSO, IF THE SAID Principal shall well and faithfully perform each and every condition of such Contract; and indemnify the Obligee against all damage suffered by failure to perform such Contract according to the provisions thereof and in accordance with the Contract Documents, including without limitation Plans, Specifications, details, and bills of material therefore; and shall pay all lawful claims of Subcontractors, Material Suppliers and laborers for labor performed and materials furnished in the carrying forward, performing or completing of said Contract; we, agreeing and assenting that this undertaking shall be for the benefit of any Subcontractor, Material Suppliers or laborer having a just claim, as well as for the Obligee herein; then this obligation shall be void; otherwise the same shall remain in full force and effect; it being expressly understood and agreed that the liability of the Surety for any and all claims hereunder shall in no event exceed the penal amount of this obligation as herein stated.

THE SAID Surety hereby stipulates and agrees that no modifications, omissions or additions, in or to the terms of said Contract, the Work thereunder or the Contract Documents, including without limitation the Plans and Specifications, therefore, shall in any way affect the obligations of said Surety on its bond, and it does hereby waive notice of any such modifications, omissions or additions in or to the terms of the Contract, the Work, or the Contract Documents, including without limitation the Plans and Specifications.

SIGNED AND SEALED this \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_.

**PRINCIPAL:**

**SURETY:**

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Signature

By: \_\_\_\_\_  
Name

By: \_\_\_\_\_  
Attorney-in-Fact

\_\_\_\_\_  
Title

**SURETY INFORMATION:**

**SURETY AGENT'S INFORMATION:**

\_\_\_\_\_  
Name

\_\_\_\_\_  
Name

\_\_\_\_\_  
Address 1

\_\_\_\_\_  
Address 1

\_\_\_\_\_  
Address 2

\_\_\_\_\_  
Address 2

\_\_\_\_\_  
City State Zip

\_\_\_\_\_  
City State Zip

\_\_\_\_\_  
Telephone

\_\_\_\_\_  
Telephone

\_\_\_\_\_  
Email

\_\_\_\_\_  
Email

**END OF DOCUMENT**

# Document 00 45 13 - Bidder's Qualifications

## State of Ohio Standard Requirements for Public Facility Construction

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Project Number: \_\_\_\_\_

Project Name: \_\_\_\_\_

1. Company Name: \_\_\_\_\_

Physical Address: \_\_\_\_\_  
Street, Building, Unit

\_\_\_\_\_  
City, State, Zip

Mailing Address (if different): \_\_\_\_\_  
P.O. Box

\_\_\_\_\_  
City, State, Zip

Telephone Number (w/ Area Code): ( \_\_\_\_\_ ) \_\_\_\_\_

Fax Number (w/ Area Code): ( \_\_\_\_\_ ) \_\_\_\_\_

Email address: \_\_\_\_\_

2. **Overall Experience.** Indicate Bidder's overall experience performing the trades bid, including the years in business performing the trade under present and former business names.

3. **Financial.** The apparent low Bidder shall submit, upon request of the Contracting Authority, either:

- a) An annual financial statement prepared within the 12 months prior to the bid opening by an independent licensed accounting firm; and the name, address, contact person and phone number of the bank normally used by the Bidder for its primary banking; or,
- b) A financial report generated within 30 days prior to the bid opening from Standard and Poor, Dun and Bradstreet or a similar company acceptable to the Contracting Authority documenting the financial condition of the Bidder; and the name, address, contact person and phone number of the bank normally used by the Bidder for its primary banking;

**This information is not a public record under Ohio Revised Code Section 149.43; and shall remain confidential, except under proper order of a court.**

- 4. Facilities & Equipment.** Indicate Bidder's relevant facilities and major equipment (leased or owned).
- 5. Ongoing & Relevant Projects.** List all ongoing projects and projects completed in the last 5 years, which are similar in cost and type to the Project. Include scope of Work, Contract value, a description of EDGE participation and performance, and project name/contact person/address/phone number for each owner and the architect or engineer for each project.
- 6. Regulatory / Contractual.** Indicate all occurrences of the following in the last 5 years (indicate if none). For verification, attach documentation, and/or provide sufficient and appropriate detail information such as: project name, owner, contact person and phone number, amount of contract, etc.
- a) State or federal Prevailing Wage violations or judgments
  
  
  
  
  
  
  
  
  
  
  - b) Affirmative Action and EDGE program violations (Attach Certificate of Compliance with Affirmative Action Programs, issued pursuant to Ohio Revised Code Section 9.47)
  
  
  
  
  
  
  
  
  
  
  - c) Contract abandonment, contract termination, as either a prime- or sub-contractor, or Surety takeover
  
  
  
  
  
  
  
  
  
  
  - d) Debarment by state, federal, or local jurisdictions

e) EPA/OSHA violations

f) Liquidated damages and Statutory Delay Forfeiture assessed

g) Drug-Free Safety Program and Drug Free Workplace Program violations

7. **Management.** Identify individuals assigned to this Project.

Principal \_\_\_\_\_ Years with firm \_\_\_\_\_ Total Exp. \_\_\_\_\_

Project Manager \_\_\_\_\_ Years with firm \_\_\_\_\_ Total Exp. \_\_\_\_\_

Field Superintendent \_\_\_\_\_ Years with firm \_\_\_\_\_ Total Exp. \_\_\_\_\_

8. **EDGE Participation.** Identify EDGE-certified Business Enterprises proposed as Subcontractors and Material Suppliers for this Project. Attach a fully completed Document 00 45 39 - "EDGE Affidavit" for each EDGE-certified Business Enterprise.

9. **Certification.** I hereby certify that the information in this entire Bidder's Qualifications form, including all attachments and referenced information, is factual and complete.

Company Name \_\_\_\_\_

Authorized Official (please print or type) \_\_\_\_\_

Signature of Authorized Official \_\_\_\_\_ Date \_\_\_\_\_

**END OF DOCUMENT**

# Document 00 52 00 - Agreement Form (K-12 School Project)

## State of Ohio Standard Requirements for Public Facility Construction

This Agreement is made as of the date set forth below between the State of Ohio, acting by and through the President and Treasurer of the School District Board, and the Contractor in connection with the Project.

**Project Name:** New Lebanon Schools – Softball Building  
**Site Address:** 320 S Fuls Road  
 New Lebanon OH, Montgomery Co

**School District Board (“Owner”):** New Lebanon Local School Board of Education  
**Owner’s Representative:** Dr. Greg Williams  
**Address:** 320 S Fuls Road  
 New Lebanon OH 45345

**Contracting Authority:** The School District Board above

**Contractor:** <insert name>  
**Contractor’s Principal Contact:** <insert name>  
**Address:** <insert street address>  
 <insert city, state zip code>

**Architect/Engineer (“A/E”):** Andrew Circle Architect LLC  
**A/E’s Principal Contact:** Andrew Circle  
**Address:** 320 E Main St  
 Troy OH 45373

### ARTICLE 1 - SCOPE OF WORK; EDGE COMMITMENT

- 1.1 The Contractor shall perform and provide all of the Work described in the Contract.
- 1.2 The project delivery method for this Project shall be Single-Prime General Contracting.
- 1.3 The Contractor shall not be required to contract with EDGE-certified Business(es).

### ARTICLE 2 - COMPENSATION

2.1 The Owner shall pay the Contractor the Contract Sum for the Contractor’s proper, timely, and complete performance of the Contract. The Contract Sum is \$<insert amount>, subject to Modifications as provided in the Contract Documents. The Contract Sum is comprised of the following:

- 2.1.1 Base Bid: .....\$<Insert Base Bid Amount>
- 2.1.2 Alternate <Insert Alternates Awarded>: .....\$<Insert Alternate Amount>

### ARTICLE 3 - CONTRACT TIMES

3.1 The Contract Times are the periods established in the following table for the achievement of the associated Milestones:

Construction Stage Milestone(s) to which Liquidated Damages apply	Contract Time	Projected Date (as of the date of this Agreement)
Substantial Completion of all Work	127 days	April 18, 2022

3.1.1 The projected dates listed under “Projected Date (as of the date of this Agreement)” are provided only for convenient reference during consideration of the Agreement. The durations listed under “Contract Time” define the Contract Times and take precedence over the projected dates.

**ARTICLE 4 - KEY PERSONNEL**

4.1 The Contractor’s key personnel for the Project are:

- 4.1.1 «insert name», Project Manager;
- 4.1.2 «insert name», Lead Scheduling Engineer;
- 4.1.3 «insert name», General Superintendent.

*Edit the above list as appropriate for the Project.*

4.2 The Contractor’s key personnel are authorized to act on the Contractor’s behalf with respect to the Project and all matters concerning the Project.

**ARTICLE 5 - GENERAL PROVISIONS**

5.1 Effectiveness.

5.1.1 It is expressly understood by the Contractor that none of the rights, duties, and obligations described in the Contract Documents shall be valid and enforceable unless the Treasurer of the School District first certifies that there is a balance in the School District’s treasury or are in the process of collection to an appropriate fund, free from any previous encumbrance.

5.1.2 Subject to **Section 5.1.1**, the Contract shall become binding and effective upon execution by the School District Board, Contractor, subject to approval of the Commission.

5.1.2.1 If the Contractor is a joint venture, **(1)** each individual joint venturer shall **(a)** sign the Agreement in its own name and **(b)** be a party to the Contract, and **(2)** the Contract and the Performance and Payment Bond shall be binding on and apply to all joint venturers jointly and severally.

5.1.2.2 If the Contractor is a limited liability company, which the Contracting Authority reasonably believes to be a special purpose or similar entity, the Contracting Authority may in its discretion require the limited liability company and each member of the limited liability company to **(1)** sign the Agreement in its own name and **(2)** be a party to the Contract. In that case, the Contract and the Performance and Payment Bond shall be binding on and apply to the limited liability company and to all of its members jointly and severally.

5.1.3 This Agreement may be executed in several counterparts, each of which shall constitute a complete original Agreement, which may be introduced in evidence or used for any other purpose without production of any other counterparts.

5.2 Representations.

5.2.1 The Contractor represents and warrants that it is not subject to an unresolved finding for recovery under ORC Section 9.24. If this representation and warranty is found to be false, the Contract is void, and the Contractor shall immediately repay to the Owner any funds paid under this Contract.

5.2.2 The Contractor hereby certifies that neither the Contractor nor any of the Contractor’s partners, officers, directors, shareholders nor the spouses of any such person have made contributions in excess of the limitations specified in ORC Section 3517.13.

5.2.3 The Contractor, by signature on this Agreement, certifies that it is currently in compliance with, and will continue to adhere to, the requirements of Ohio ethics laws and conflict of interest laws and will take no action inconsistent with those laws.

5.2.4 The Contractor affirms to have read and understands Executive Order 2019-12D and shall abide by those requirements in the performance of this Contract. Notwithstanding any other terms of this Contract, the State reserves the right to recover any funds paid for services the Contractor performs outside of the United States for which it did not receive a waiver. The State does not waive any other rights and remedies provided the State in this Contract.

5.2.5 Pursuant to ORC Section 9.76(B), the Contractor warrants that it is not boycotting any jurisdiction with whom the State of Ohio can enjoy open trade, including Israel, and will not do so during the term of this Contract.

**ARTICLE 6 - Enumeration of Documents**

**6.1** The Contract Documents constitute the substance of the Contract, and include this Agreement, Drawings, Specifications, Addenda if any, **Contracting Definitions, General Conditions**, Supplementary Conditions if any, **Bid Form, Wage Rate Requirements, Bid Guaranty and Contract Bond or Performance and Payment Bond**, and Change Orders if any.

**SIGNATURES**

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the date set forth below:

«INSERT CONTRACTOR’S NAME»

**STATE OF OHIO, BY AND THROUGH THE  
SCHOOL DISTRICT BOARD**

\_\_\_\_\_  
*Signature*

\_\_\_\_\_  
*Signature*

\_\_\_\_\_  
*Printed Name*

\_\_\_\_\_  
*Printed Name*

School District Board President

\_\_\_\_\_  
*Title*

\_\_\_\_\_  
*Signature*

\_\_\_\_\_  
*Printed Name*

School District Board Treasurer

\_\_\_\_\_  
*Date*

*If the Contractor is a corporation, partnership, sole proprietorship, or limited liability company, use the table above. If the Contractor is a joint venture or special purpose entity, use the table below. Then delete the unused table and this note.*

«INSERT CONTRACTOR’S NAME»  
by «insert Joint Venturer/Member’s name»

**STATE OF OHIO, BY AND THROUGH THE  
SCHOOL DISTRICT BOARD**

\_\_\_\_\_  
*Signature*

\_\_\_\_\_  
*Signature*

\_\_\_\_\_  
*Printed Name*

\_\_\_\_\_  
*Printed Name*

School District Board President

\_\_\_\_\_  
*Title*

by «insert Joint Venturer/Member’s name»

\_\_\_\_\_  
*Date*

\_\_\_\_\_  
*Signature*

\_\_\_\_\_  
*Signature*

---

*Printed Name*

---

*Printed Name*

School District Board Treasurer

---

*Title*

**TREASURER’S CERTIFICATION**

IT IS HEREBY CERTIFIED that the moneys required to meet the obligations of the **Board of Education of the «insert name» School District** under the foregoing Agreement have been lawfully appropriated for such purposes and are in the treasury of the «insert name» **School District** or are in the process of collection to an appropriate fund, free from any previous encumbrance.

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*Purchase Order No.*

---

*Signature*

---

*Printed Name*

School District Board Treasurer

**APPROVAL OF THE OHIO FACILITIES CONSTRUCTION COMMISSION**

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Cheryl J. Lyman

Executive Director

**END OF DOCUMENT**

# Document 00 52 14 - State of Ohio Subcontract Form

## State of Ohio Standard Requirements for Public Facility Construction

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This Agreement is made as of the date set forth below between the Contractor and the Subcontractor in connection with the Project.

**Project Number:** <insert number>  
**Project Name:** <insert name>  
Site Address: <insert street address>  
<insert city, county>

**Contractor:** <insert name>  
Contractor's Principal Contact: <insert name>  
Address: <insert street address>  
<insert city, state zip code>

**Subcontractor:** <insert name>  
Subcontractor's Principal Contact: <insert name>  
Address: <insert street address>  
<insert city, state zip code>

**Public Authority:** <insert name>  
Public Authority Contact: <insert name>  
Address: <insert street address>  
<insert city, state zip code>

### ARTICLE 1 - NATURE OF SUBCONTRACT

1.1 The Subcontractor shall perform the entire Subcontract Work as specified in Exhibit <N> and described in the Contract Documents for the Project.

### ARTICLE 2 - COMPENSATION

2.1 The Contractor agrees to pay for the performance of this Subcontract, subject to additions and deductions as provided in the Contract Documents, the Subcontract Sum of <insert Subcontract Sum>, comprised of the following:

<insert Subcontract Sum component> .....\$<insert amount>  
<insert Subcontract Sum component> .....\$<insert amount>  
<insert Subcontract Sum component> .....\$<insert amount>  
<insert Subcontract Sum component> .....\$<insert amount>

### ARTICLE 3 - TIME OF PERFORMANCE

3.1 Time is of the essence. The Subcontractor shall diligently prosecute and complete all Subcontract Work in accordance with the construction progress schedule agreed between the parties.

### ARTICLE 4 - CONTRACT DOCUMENTS

4.1 To the extent that the contract between the Public Authority and the Contractor applies to the Subcontract Work:

4.1.1 The Contractor and the Subcontractor agree to be mutually bound by the terms of the Contract Documents;

4.1.2 The Contractor assumes toward the Subcontractor the rights, remedies, obligations, and responsibilities that the Public Authority has and assumes toward the Contractor;

**4.1.3** The Subcontractor assumes toward the Contractor the rights, remedies, obligations, and responsibilities that the Contractor assumes toward the Public Authority; and

**4.1.4** The Subcontractor agrees to perform its portion of the Work in accordance with the Contract Documents.

**4.2** The Subcontract and any modifications, amendments, or alterations thereto shall be governed, construed, and enforced by and under the laws of the State of Ohio.

**4.3** If any term or provision of the Subcontract, or the application thereof to any Person or circumstance, is finally determined, to be invalid or unenforceable by a court of competent jurisdiction, the remainder of the Subcontract or the application of such term or provision to other Persons or circumstances, shall not be affected thereby, and each term and provision of the Subcontract shall be valid and enforced to the fullest extent permitted by law.

**4.4** The Subcontract shall be binding on the Contractor and Subcontractor, their successors and assigns, in respect to all respective covenants and obligations contained in the Contract Documents, but the Subcontractor may not assign the Subcontract without the prior written consent of the Contractor and the Public Authority.

## ARTICLE 5 - EFFECTIVENESS

**5.1** The Subcontract shall become binding and effective upon execution by the Contractor.

**5.2** This Subcontract has been executed in several counterparts, each of which shall constitute a complete original Subcontract, which may be introduced in evidence or used for any other purpose without production of any other counterparts.

**5.3** Any signatory may deliver a copy of its counterpart signature page to this Subcontract via fax or e-mail. Each signatory shall be entitled to rely upon a signature of any other signatory delivered in such a manner as if such signature were an original.

## ARTICLE 6 - REPRESENTATIONS

**6.1 Contingent Assignment.** The Contractor's contingent assignment of this Subcontract to the Public Authority, as provided in the Contract, is effective after termination of the Contractor by the Public Authority and the Public Authority's acceptance of the assignment in writing to the Subcontractor. The Subcontractor consents to the assignment and shall be bound at the same price and terms as in the Subcontract to the Public Authority. Unless the Public Authority takes assignment of the Subcontract, the Subcontractor will not have any contractual rights against the Public Authority.

**6.2 Intended Third-Party Beneficiary.** The Public Authority is an intended third party beneficiary of the Subcontract, entitled to enforce any rights thereunder for its benefit.

**6.3 Insurance.** The Subcontractor shall maintain insurance in accordance with the Contract Documents. Exhibit «N» sets forth the minimum limits of liability for the insurance required in the Contract Documents.

**6.4 Right to Audit.** The Subcontractor agrees that the Public Authority or any agents designated by the Public Authority have access to and the right to audit and the right to copy at the Public Authority's cost all of the Subcontractor's books, records, contracts, correspondence, instructions, drawings, receipts, vouchers, purchase orders, and memoranda relating to the Work for a period of not less than 3 years following completion of the Work consistent with Ohio Revised Code ("ORC") Section 149.43 with regard to the Public Authority's obligation to maintain confidentiality of trade secrets.

**6.5 Indemnity.** To the fullest extent permitted by law, the Subcontractor shall indemnify, defend, and hold harmless the Public Authority, the Contractor, their consultants and employees from all claims and expenses for bodily injury and property damage other than to the Work itself that may arise from the performance of the Subcontract Work, including reasonable attorneys' fees, costs and expenses, but only to the extent caused by the negligent acts or omissions of the Subcontractor or a person or entity for whom the Subcontractor may be liable. This Subcontract does not require a Subcontractor to waive its immunity under the Workers Compensation laws of Ohio from claims brought against the Subcontractor by the Subcontractor's employees.

**6.6 Prompt Pay.** The Contractor shall at a minimum make payments to the Subcontractor in accordance with Applicable Law, including ORC Section 4113.61. Progress payments to the Subcontractor for satisfactory performance of Subcontract Work shall be made no later than 10 days after receipt by the Contractor of payment from the Public Authority for Subcontract Work.

**6.7 Retainage.** Subcontractor retainage shall be at a rate equal to the percentage retained from the Contractor's payment by the Public Authority for the Subcontract Work, unless a lesser percentage is otherwise specified.

**6.7.1 Labor Payments.**

**6.7.1.1** Partial payments to the Subcontractor for labor performed shall be made at the rate of 92 percent of the amount invoiced through the Subcontractor's request for payment that shows the Work of the Subcontractor is 50 percent complete.

**6.7.1.2** After the Work of the Subcontractor is 50 percent complete, as evidenced by payments of at least 50 percent of the total amount due under the Subcontract, no additional funds shall be retained from payments for labor.

**6.7.2 Material Payments.**

**6.7.2.1** The Contractor shall pay the Subcontractor at the rate of 100 percent of the scheduled value for materials incorporated into the Project.

**6.7.2.2** The Contractor shall pay the Subcontractor at the rate of 92 percent of the invoice cost, not to exceed the scheduled value, for materials delivered to the Site, or other off-site storage location approved by the A/E, provided the Subcontractor provides the following information with its request for payment:

- .1** a list of the fabricated materials consigned to the Project, giving the place of storage, together with copies of invoices, in order to verify quantity and cost; and
- .2** a certification of materials stored off-site, prepared by the Subcontractor and signed by the A/E to evidence that the materials are in conformity with the Specifications and have been tagged with the Project name and number for delivery to the Project. The Subcontractor shall reimburse the A/E, through the Contractor, for all costs incurred to visit a storage site, other than the areas adjacent to the Project.
- .3** The Contractor shall pay the balance of the scheduled value when the materials are incorporated into and become a part of the Project.

**6.8 Warranty.** The Subcontractor fully warrants, for the benefit of the Public Authority, that all materials and equipment shall be new unless otherwise specified, of good quality, in conformance with the Contract Documents and free from defective workmanship or materials.

**6.9 Non-Waiver of Lien Rights or Payment Bond Rights.** This Subcontract shall not prohibit a Subcontractor from exercising its rights under ORC Chapter 1311 or under any Contractor-provided payment bond.

**6.10 Non-Discrimination.** The Subcontractor agrees to fully comply with Applicable Law regarding equal opportunity, including ORC Section 153.59 and, to the extent applicable, all Executive Orders issued by the Governor of the state of Ohio.

**6.11 Dispute Resolution.** The supplemental conditions to this Subcontract shall provide for a dispute resolution process comparable to the Contract's dispute resolution process in terms of timing, notice, substantiation, and informal dispute resolution efforts. The dispute resolution process provided in the supplemental conditions shall result in prompt access to the ultimate dispute resolution mechanism selected by the parties.

**6.12** In the event that any supplemental conditions or other Subcontract terms conflict with the **State of Ohio Subcontract Form**, the **State of Ohio Subcontract Form** takes precedence and this Subcontract shall be read and enforced to include the provisions of the **State of Ohio Subcontract Form**.

**6.13** The following exhibits are attached to and are a part of this Subcontract:

**6.13.1 Exhibit A:**

**6.13.2 Exhibit B:**

**6.13.3 Exhibit C:**

**6.13.4 Exhibit D:**

**SIGNATURES**

IN WITNESS WHEREOF, the parties have executed this Subcontract Form.

«INSERT SUBCONTRACTOR'S NAME»

«INSERT CONTRACTOR'S NAME»

\_\_\_\_\_  
*Signature*

\_\_\_\_\_  
*Signature*

\_\_\_\_\_  
*Printed Name*

\_\_\_\_\_  
*Printed Name*

\_\_\_\_\_  
*Title*

\_\_\_\_\_  
*Title*

\_\_\_\_\_  
*Date*

**END OF DOCUMENT**

# Document 00 61 13 - Performance and Payment Bond Form

## State of Ohio Standard Requirements for Public Facility Construction

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( Form of Bond prescribed by Ohio Revised Code Section 153.57 - Not to be used as Bid Guaranty )

KNOW ALL PERSONS BY THESE PRESENTS, that we, the undersigned \_\_\_\_\_,  
\_\_\_\_\_, as Principal,  
and \_\_\_\_\_ as Sureties,  
are hereby held and firmly bound unto \_\_\_\_\_  
\_\_\_\_\_ as Oblige(e)s, in the penal sum of \_\_\_\_\_ dollars,  
for the payment of which well and truly to be made, we jointly and severally bind ourselves, our heirs, executors,  
administrators, successors, and assigns.

SIGNED AND SEALED this \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_.

THE CONDITION OF THE ABOVE OBLIGATION IS SUCH, that whereas the above-named Principal did on the  
\_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_, enter into a Contract with the Oblige(e), which said Contract is  
made a part of this Bond the same as though set forth herein and which is more fully described as:

Project Number: \_\_\_\_\_

Project Name: \_\_\_\_\_

Contract Description: \_\_\_\_\_  
(e.g., General Trades, Plumbing, HVAC, Electrical)

NOW, THEREFORE, if the above-named Principal shall well and faithfully do and perform the things agreed by the  
Oblige(e) to be done and performed according to the terms of said Contract; and shall pay all lawful claims of Subcontractors,  
Material Suppliers, and laborers, for labor performed and materials furnished in the carrying forward, performing, or  
completing of said Contract; we agreeing and assenting that this undertaking shall be for the benefit of any Subcontractor,  
Material Supplier or laborer having a just claim as well as for the Oblige(e) herein; then this obligation shall be void; otherwise  
the same shall remain in full force and effect; it being expressly understood and agreed that the liability of the Sureties for  
any and all claims hereunder shall in no event exceed the penal amount of this obligation as herein stated.

THE SAID Surety hereby stipulates and agrees that no modifications, omissions, or additions, in or to the terms of  
the said Contract or in or to the Plans and Specifications therefor shall in any wise affect the obligations of said Surety on its  
bond, and it does hereby waive notice of any such modifications, omissions or additions in or to the terms of the Contract, the  
Work or the Contract Documents, including without limitation the Plans and Specifications.

**PRINCIPAL:**

\_\_\_\_\_  
Principal Signature

By: \_\_\_\_\_

Title: \_\_\_\_\_

**SURETY:**

\_\_\_\_\_  
Surety Signature

By: \_\_\_\_\_  
Attorney-in-Fact

**SURETY INFORMATION:**

\_\_\_\_\_  
Street

\_\_\_\_\_  
City State Zip

\_\_\_\_\_  
Telephone Number

**SURETY AGENT'S INFORMATION:**

\_\_\_\_\_  
Agency Name

\_\_\_\_\_  
Street

\_\_\_\_\_  
City State Zip

\_\_\_\_\_  
Telephone Number

\_\_\_\_\_  
Email Address

**END OF DOCUMENT**

# Delinquent Personal Property Tax Affidavit

## State of Ohio Standard Forms and Documents

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State of Ohio }  
County of \_\_\_\_\_ } SS.

The undersigned individual, or duly authorized representative of the identified company, having been first duly cautioned and sworn, alleges and states that said individual or company has been advised that he has or it has received a Notice of Intent to Award a Contract(s) let by competitive bid by

\_\_\_\_\_ School District , on behalf of the State of Ohio under Section 3318.10, ORC, but prior to the execution of said Contract(s), and pursuant to Section 5719.042, ORC, provides this statement to the Treasurer under oath that he or it was not charged, on the date the Bid(s) was submitted, with any delinquent personal property taxes on the general tax list of personal property of \_\_\_\_\_ County, Ohio, or that he or it is so charged in the following amount:

Delinquent Tax: \_\_\_\_\_

Penalties and interest due and unpaid: \_\_\_\_\_

Total (if none, indicate "NONE") \_\_\_\_\_

A copy of this sworn statement will be attached to and incorporated into the Contract(s) for this Project which shall enable payments to be made under said Contract(s).

By: \_\_\_\_\_ Date: \_\_\_\_\_, \_\_\_\_\_

Company: \_\_\_\_\_

Project: \_\_\_\_\_

Sworn to and executed before me this \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_

Notary Public  
My commission expires: \_\_\_\_\_

# Document 00 71 00 - Contracting Definitions (General Contracting Project)

## State of Ohio Standard Requirements for Public Facility Construction

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<b>Acceptable Component</b>	A component listed in the Specifications after the Basis of Design Component.
<b>Addenda or Addendum</b>	Written or graphic instrument issued prior to the bid opening which modifies or interprets the proposed Contract Documents by additions, deletions, clarifications, or corrections. Addenda become part of the Contract Documents when the Agreement is executed.
<b>A/E</b>	See “Architect/Engineer.”
<b>Agreement</b>	The form furnished by the Contracting Authority (including all of its exhibits) that, when completed and signed by the Contractor and Contracting Authority evidences entry into the Contract.
<b>Allowance</b>	A sum stipulated in the Contract Documents for a defined scope of the Work that may not be completely defined at the time of bidding. Allowance amounts do not include the Contractor’s Fee on account of the associated Work.
<b>Alternate</b>	A change in the proposed Project scope, which may include but is not limited to alternate materials or methods of construction, and an amount stated on the Bid form to be added to or deducted from the Base Bid if the corresponding Alternate is incorporated into the Contract.
<b>Alternative Dispute Resolution</b>	A voluntary and non-binding process for the administrative review, consideration, and attempted settlement of a dispute, without resort to judicial process, including but not limited to partnering, negotiation, mediation, impartial fact-finding, dispute review board, and mini-trials, but shall not include arbitration.
<b>Applicable Law</b>	All federal, state, and local codes, statutes, ordinances, and regulations that apply to the performance of the Work or the A/E’s Services on the Project.
<b>Architect/Engineer</b>	The Person responsible for providing professional design services and construction contract administration for the Project as provided in the Contract Documents. The A/E shall be a <b>(1)</b> registered architect holding a license and certificate of authorization issued by the Ohio Architects Board pursuant to ORC Chapter 4703, <b>(2)</b> landscape architect holding a license and certificate of authorization issued by the Ohio Landscape Architects Board pursuant to ORC Chapter 4703, or <b>(3)</b> professional engineer or professional surveyor holding a license and certificate of authorization issued by the Ohio Engineers and Surveyors Board pursuant to ORC Chapter 4733.
<b>As-Built Documents</b>	Documents, including but not limited to Drawings, Addenda, Specifications, executed Change Orders, and other elements of the Contract Documents which the Contractor annotates and otherwise modifies to indicate changes made during the construction process, the location of concealed and buried items, and other information useful to the Owner throughout the life of the completed Project.
<b>Base Bid</b>	The amount stated in a Bid as the sum for which the Bidder offers to perform the Work in a particular trade or other category, which is described in the Contract Documents, excluding Alternates.
<b>Basis of Design</b>	A document that records the concepts, calculations, decisions, and product selections used to meet the Owner’s Project Requirements and to satisfy applicable regulatory requirements, standards, and guidelines. The document includes both narrative descriptions and lists of individual items that support the design process.
<b>Basis of Design Component</b>	A component listed first in the Specifications.
<b>Bid</b>	A written proposal to perform a Contract, submitted on a completed Bid Form, accompanied by other required documents. The term Bid includes a proposal that has been digitally signed, encrypted, and submitted through the State’s electronic bidding application pursuant to OAC Section 153:1-8-01.

<b>Bidder</b>	A Person that submitted a Bid.
<b>BIM</b>	See “Building Information Model.”
<b>Bid Form</b>	A form furnished by the Contracting Authority with the proposed Contract Documents that is to be completed, signed, and submitted containing the Bidder's Bid.
<b>Bid Guaranty</b>	A bid bond or other instrument of security authorized by ORC Section 153.54 submitted with the Bid to provide assurance that the Bidder will execute the Agreement.
<b>Bond</b>	A performance and payment bond in the format specified by ORC Section 153.57 submitted by the Contractor to provide assurance that the Contractor will perform the Work of the Contract, including making required payments to Subcontractors and Materials Suppliers.
<b>Building Information Model</b>	A digital representation of physical and functional characteristics of a facility; a shared knowledge resource for information about a facility forming a reliable basis for decisions during its life-cycle, which is defined as existing from earliest conception to demolition; electronic files used to design and coordinate the Project; and may be used to describe a single model or multiple models used in the aggregate.
<b>Certificate of Contract Completion</b>	A form used to document that the Contractor’s achievement of Contract Completion. This form may also be used to document partial Contract Completion.
<b>Certificate of Substantial Completion</b>	A form used to document <b>(1)</b> that the Contractor has achieved Substantial Completion of the Work or a designated portion of the Work for which the Contracting Authority and the Owner have agreed to take Partial Occupancy, and <b>(2)</b> the date on which the associated Substantial Completion of the Work was achieved.
<b>Change Directive</b>	A written document prepared by the A/E and executed by the Contracting Authority that directs a change in the Work.
<b>Change Order</b>	A document recommended by the A/E and executed by the Contracting Authority and the Contractor that modifies the Contract.
<b>Claim</b>	A demand or assertion, initiated by written notice, certified by one of the parties to the Contract seeking, as a matter of right, adjustment or interpretation of Contract terms, payment of money, extension of time, or other relief with respect to the terms of the Contract.
<b>Claim Affidavit</b>	A sworn document used in conjunction with filing a lien, which contains a claim on the funds that are due to a Contractor, in favor of a Person supplying labor, materials, or services for the value of labor, materials, or services supplied.
<b>Combined Bid</b>	A Bid that combines bid items for separate Contracts stated on the Bid Form.
<b>Commission</b>	See “Ohio Facilities Construction Commission.”
<b>Commissioning Agent</b>	The Person identified by the Contracting Authority who leads, plans, schedules, and coordinates the commissioning team to implement the Commissioning Process for the Project.
<b>Commissioning Plan</b>	A document that outlines the organization, schedule, allocation of resources, and documentation requirements of the Commissioning Process.
<b>Commissioning Process</b>	A quality-focused process for enhancing the delivery of a project. The process focuses on verifying and documenting that the facility and all of its systems are planned, designed, installed, tested, operated, and maintained to meet the Owner’s Project Requirements.

<b>Commissioning Report</b>	A document that records the activities and results of the Commissioning Process. The Commissioning Report is developed from the final Commissioning Plan with its attached appendices.
<b>Conformed Documents</b>	Contract Documents with all Addenda items and accepted Alternates incorporated by the A/E, published, and issued to a successful Bidder for its use during performance of the Contract. The Conformed Documents are furnished solely for the Contractor's convenience. In the event of any conflict between the Contract Documents modified by Addenda and the Conformed Documents, the Contract Documents take precedence.
<b>Construction Budget</b>	The amount identified in the Agreement as adjusted by the Owner and Contracting Authority.
<b>Construction Cost</b>	The sum of the Contract Cost amounts for a phase of the Project.
<b>Construction Progress Schedule</b>	The critical path schedule for performance of the Contract; showing the time for completing the Work within the Contract Times; the planned sequence for performing the various components of the Work; the interrelationship between the activities of the Contractor, A/E, Contracting Authority, and Owner; and the Contractor's resource and cost loading information; as periodically updated during the performance of the Work.
<b>Contract</b>	The state of legal obligation entered into by the State and the Contractor, whereby they have agreed to an exchange of certain acts, materials, equipment, and services for certain monetary consideration, under all terms and conditions specified in the Contract Documents, which shall remain in full force and effect until such time as all obligations under the Contract have been lawfully and completely discharged, or the Contract is terminated under other conditions specified in the Contract Documents.
<b>Contract Completion</b>	The schedule Milestone in the progress of any Phase when the Work is completed in accordance with the terms of the Contract Documents and Contractor has satisfied all of its other obligations under the Contract Documents, including but not limited to <b>(1)</b> all governmental authorities have given final, written approval of the Work, <b>(2)</b> a final unconditional certificate of occupancy has been granted and issued to the Owner by the appropriate governmental authorities, <b>(3)</b> the Contractor's Work is 100 percent complete, and <b>(4)</b> all Punch List items have been completed or corrected, and <b>(5)</b> the Contractor has complied with conditions precedent to final payment and release of retained funds.
<b>Contract Documents</b>	Collectively, the documents that constitute the substance of the Contract including but not limited to Drawings, Specifications, Addenda if any, General Conditions, Supplementary Conditions if any, Bid Form, Wage Rates; and the executed Agreement, Bid Guaranty and Contract Bond, and Change Orders if any.
<b>Contract Sum</b>	The Contract Sum is the Contractor's entire compensation for the Contractor's proper, timely, and complete performance of the Work and is subject to adjustment as provided in the Contract.
<b>Contract Times</b>	The periods stipulated in the Agreement for the achievement of associated Milestones, in consecutive days, beginning on the date established by the Notice to Proceed, including adjustments authorized by executed Change Orders.
<b>Contracting Authority</b>	The party identified in the Agreement, which may be the Ohio Facilities Construction Commission; an agency of the state of Ohio; an Institution of Higher Education or division thereof; a School District Board; or the legislative body of a political subdivision.
<b>Contractor</b>	A firm, which is party to the Contract for the performance of Work on the Project in accordance with the Contract Documents.
<b>Contractor's Documents</b>	All Project-related documents, including those in electronic form, prepared by the Contractor and its Subcontractors.

<b>Contractor's Fee</b>	The portion of the Contract Sum attributable to the aggregate of the Contractor's profit and home-office overhead related to the Contractor's proper, timely, and complete performance of the Work.
<b>Contractor Payment Request</b>	The form furnished by the Commission that is to be used by the Contractor in requesting payments and which, when signed by the Contractor, shall serve as an affidavit that payments requested are in proportion to the Work completed as shown on the Schedule of Values.
<b>Contractor's Punch List</b>	A document prepared by the Contractor that consists of a list of items of Work to be completed or corrected by the Contractor as a condition precedent to Contract Completion.
<b>Coordination Drawings</b>	Drawings and Electronic Files prepared by the Contractor to demonstrate how multiple-system and interdisciplinary work will be coordinated. Clash reports generated by BIM authoring software may be included in the Coordination Drawing submittals if applicable.
<b>Correction Period</b>	A period of one year commencing on the date of Substantial Completion of the Work or a designated portion of the Work which the Contracting Authority and Owner have agreed to take Partial Occupancy.
<b>CxA</b>	See "Commissioning Agent."
<b>Date of Commencement</b>	The date established in a Notice to Proceed issued by the Contracting Authority to the Contractor to mark the start of the Work and the beginning of the running of the Contract Times.
<b>day</b>	A calendar day of 24 hours measured from midnight to midnight, unless otherwise expressly specified to mean a business day.
<b>Defective Work</b>	Work that does not conform to the Contract Documents; or does not meet the requirements of any applicable statute, rule or regulation, inspection, reference standard, test or approval; or has been damaged prior to the A/E's recommendation of final payment, unless responsibility for the protection thereof has been expressly assumed by the Owner; or that is not free from defects in workmanship, materials or equipment during the period of any warranty or guarantee.
<b>Differing Site Condition</b>	Either <b>(1)</b> a subsurface or otherwise concealed physical condition encountered at the Site that differs materially from the conditions indicated in the Contract Documents or <b>(2)</b> an unknown physical condition of an unusual nature encountered at the Site that differs materially from those ordinarily found to exist and generally recognized as inherent in construction activities of the character provided for in the Contract Documents.
<b>Dispute Review Board</b>	A form of Alternative Dispute Resolution that is typically comprised of three members, selected jointly by the Contractor and the Contracting Authority, to monitor the progress of construction and provide recommended resolutions to disputes that are brought before them.
<b>Drawings</b>	Graphic portions of the Contract Documents, showing the design, type of construction, location, dimension, and character of the Work to be provided by the Contractor, which generally includes plans, elevations, sections, details, schedules, diagrams, notes, and text.
<b>Electronic File</b>	Information maintained in a computer system or format that is intended to facilitate a Person's use and manipulation of the information including but not limited to Word, Excel, PDF, Primavera, CAD, and BIM files all in their native format.
<b>Enclosure, Permanent</b>	The condition in which the permanent exterior walls and roofs are in place, insulated and weathertight, and permanent windows and entrances are in place.
<b>Enclosure, Temporary</b>	The condition in which the permanent exterior walls and roofs are in place, insulated and weathertight, and windows and entrances are provided with suitable temporary enclosures.

<b>Estimated Construction Cost</b>	The sum of the Estimated Contract Cost amounts published in the Solicitation, as modified by Addenda, for a phase of the Project.
<b>Estimated Contract Cost</b>	The estimated amount for the Contract published in the Solicitation, including the Base Bid estimate and the estimates of selected Alternates, if any, as modified by Addenda.
<b>Extra Materials</b>	Materials required by the Contract Documents that are not incorporated into the Project but are given to the Owner to be used for future maintenance or repairs.
<b>Final Inspection</b>	The final review of the Work of the Contractor by the A/E to determine whether issuance of the Certificate of Contract Completion is appropriate.
<b>furnish</b>	Supply and deliver to the Site, or other specified location, ready for installation.
<b>General Conditions</b>	The State's Standard General Conditions currently in effect, which may be modified by the Commission from time to time.
<b>General Conditions Costs</b>	General Conditions Costs include only the Contractor's costs to provide the general conditions Work including without limitation the costs of all of the following Site-related items: scheduling and coordinating the Work. telephone, telephone charges, facsimile, telegrams, postage, photos, photocopying, hand tools, simple scaffolds (one level high), tool breakage, tool repairs, tool replacement, tool blades, tool bits, and pre-approved travel, lodging, and parking costs. General Conditions Costs also include <b>(1)</b> Bond premiums and <b>(2)</b> premiums for builder's risk insurance if the Contractor purchases the builder's risk policy for the Project.
<b>Hazardous Materials</b>	Any material, substance, pollutant, or contaminant that is defined, regulated, referenced, or classified in the Comprehensive Environmental Response, Compensation and Liability Act, Federal Water Pollution Control Act, the Resource Conservation and Recovery Act, Clean Air Act, Hazardous Materials Transportation Uniform Safety Act, Toxic Substances Control Act, or any other Applicable Law relating to any hazardous, toxic, or dangerous waste, substance, or material. Any substance or material that, after release into the environment or upon exposure, ingestion, inhalation, or assimilation, either directly from the environment or directly by ingestion through food chains, will, or may reasonably be anticipated to, cause death, disease, behavior abnormalities, cancer or genetic abnormalities and specifically includes but is not limited to asbestos, polychlorinated biphenyls ("PCBs"), radioactive materials, including radon and naturally occurring radio nuclides, natural gas, natural gas liquids, liquefied natural gas, synthetic gas, oil, petroleum and petroleum-based derivatives and urea formaldehyde.
<b>Indemnified Parties</b>	The State, Contracting Authority, Owner, A/E, other Separate Consultants, and their respective officials, officers, consultants, agents, representatives, and employees, in both individual and official capacities.
<b>install</b>	Put into use or place in final position, complete and ready for intended service or use.
<b>Institutional Designee</b>	The party identified in the Agreement empowered with a level of authority similar to the Executive Director of the Commission, which may be the university architect or engineer, director of capital facilities, or an institution vice president.
<b>Institution of Higher Education</b>	Any state of Ohio university or college, community college, state of Ohio community college, technical college, university branch, community college district, technical college district, university branch district, and the applicable board of trustees or, in the case of a university branch district, any other managing authority.
<b>Liquidated Damages</b>	A sum established in the Contract Documents, pursuant to the statutory delay forfeiture authorized under ORC Section 153.19, to be paid to the Owner due to the Contractor's failure to complete the Work within the Contract Time for achievement of Substantial Completion, or any applicable portion of the Work on or prior to any Milestone date stated on the Agreement.
<b>Material Supplier</b>	A Person under a contract with the Contractor to furnish materials or supplies in furtherance of the Work, including all such Persons in any tier. Material Supplier

	does not include any Separate Contractor unless expressly assigned in writing to the Contractor by the Owner and accepted by the Contractor.
<b>mediation</b>	A voluntary process in which a neutral third party meets with the parties who have a disagreement or dispute and attempts to facilitate a mutually satisfactory resolution.
<b>Milestone</b>	A principal event specified in the Contract relating to an intermediate completion date or time prior to and including Substantial Completion of all Work.
<b>Modification</b>	A <b>(1)</b> written amendment to the Contract signed by both parties, <b>(2)</b> Change Order, <b>(3)</b> Change Directive, or <b>(4)</b> an order for a minor change in the Work.
<b>negotiation</b>	A form of Alternative Dispute Resolution in which all parties involved are represented by those invested with the authority to agree to a determination of an adjustment in the Contract Sum, Contract Times, or both.
<b>Neutral Facilitator</b>	An nonpartisan third-party without decision-making authority who is engaged to assist the Project's key stakeholders in developing cooperative relationships, achieving project objectives, avoiding or minimizing disputes, and nurturing a more-collaborative ethic characterized by trust, cooperation and teamwork.
<b>Notice of Commencement</b>	A notice prepared by the Contracting Authority identifying the Project, the Contractors, the Surety for each Contractor, and the name of the Contracting Authority's representative upon whom a Claim Affidavit may be served.
<b>Notice of Intent to Award</b>	A written notice provided by the Contracting Authority to the apparent successful Bidder stating that upon satisfactory compliance with all conditions precedent for execution of a Contract within the time specified, the Contracting Authority intends to execute a Contract with the Bidder.
<b>Notice to Proceed</b>	A written notice provided by the Contracting Authority authorizing the Contractor to proceed with the Work and establishing the dates for commencement and completion of the Work.
<b>OAC</b>	Ohio Administrative Code
<b>Ohio Facilities Construction Commission</b>	The authorized contracting agent for public improvement projects in accordance with ORC Chapters 123 and 153, acting by and through its Executive Director.
<b>ORC</b>	Ohio Revised Code
<b>Owner</b>	The state of Ohio agency, Institution of Higher Education or division thereof, School District Board, or other instrumentality for whom the Project is being constructed.
<b>Owner's Project Requirements</b>	A written document that details the functional requirements of the Project and the expectations of how it will be used and operated. These include project goals, measureable performance criteria, cost considerations, benchmarks, success criteria, and supporting information.
<b>Partial Occupancy</b>	The condition that occurs when the Owner occupies or uses a portion of the Project prior to Contract Completion, partial occupancy is approved by authorities having jurisdiction, and items of Work cannot be completed until a subsequent date.
<b>partnering</b>	A voluntary dispute prevention process involving team building activities to help define common goals, improve communication, and foster a problem solving attitude among a group of contracting parties that must work together throughout Contract performance to be less adversarial and more cooperative.
<b>Person</b>	An individual, corporation, business trust, estate, partnership, association, or other public or private entity.
<b>Phase</b>	A separation in the Work of the Project by sequence or time intervals, which may include separate contractors for each Phase.
<b>Plan Holder</b>	A prospective Bidder that received a set of Contract Documents prior to the bid opening.

<b>Product Data</b>	Manufacturer's standard illustrations, schedules, diagrams, performance charts, instructions, and brochures that illustrate physical appearance, size, and other characteristics of materials and equipment.
<b>Project</b>	The public improvement, of which the Work performed under the Contract Documents may be the whole or a part.
<b>Project Manager</b>	A permanent employee of the Contracting Authority assigned to the Project and authorized to perform specific responsibilities.
<b>Project Manual</b>	That part of Construction Documents which consists of bound volume(s) of primarily written material which generally contain Division 00 - "Procurement and Contracting Requirements," and Divisions 01 through 49 - "Specifications," and other documents pertaining to the Project.
<b>Proposal</b>	The offer of a Contractor to perform the Work set forth in a Proposal Request.
<b>Proposal Request</b>	A document issued after execution of the Contract requesting a Proposal from the Contractor(s), which may initiate a Change Order to modify the Contract.
<b>provide</b>	Furnish and install, complete and ready for intended use.
<b>Punch List</b>	A document listing items of Work requiring correction or completion by the Contractor as a condition precedent to Contract Completion.
<b>Record Documents</b>	Electronic files and printed documents of all nature prepared by the A/E, which incorporate the information shown on the Contractor's As-Built Documents. They consist of the "Record Drawings" and "Record Project Manual," Certificate of Substantial Completion, Certificate of Contract Completion (as complete), Contractor's Warranty, Manufacturers' Warrantees, certificate(s) of occupancy, approved shop drawings and other action submittals, Change Directives, Proposal Requests, Requests for Interpretation, Addenda, Change Orders, Balancing Reports, and the final version of the approved Construction Progress Schedule.
<b>Record Drawings</b>	The Drawings, which have been revised by the A/E to show the changes made during the construction process, conformed to represent the Work as executed by the Contractor.
<b>Record Model</b>	The Building Information Model, which has been revised by the A/E to show the changes made during the construction process, conformed to represent the Work as executed by the Contractor.
<b>Record Project Manual</b>	The Project Manual of the Contract Documents, which has been revised by the A/E to show the changes made during the construction process, based on the As-Built Project Manual furnished by the Contractor.
<b>Request for Change Order</b>	A written notice from the Contractor accompanied by a Proposal for a change in the Work.
<b>Request for Interpretation</b>	A written request to the A/E seeking an interpretation or clarification of the Contract Documents.
<b>RFI</b>	See "Request for Interpretation."
<b>Samples</b>	Physical examples, color selection items, field samples, and mock-ups furnished by the Contractor to illustrate functional and aesthetic characteristics of products, materials, equipment, or workmanship and establish criteria by which the Work shall be judged.
<b>Schedule of Values</b>	A full, accurate, and detailed statement furnished by the Contractor reflecting a defined breakdown of the Contract Sum.
<b>School District</b>	A local, exempted village, or city school district as defined in ORC Chapter 3311, or a joint vocational school established pursuant to ORC Section 3311.18, performing essential governmental functions of state government pursuant to ORC Sections 3318.01 to 3318.20.

<b>School District Board</b>	The board of education of a School District.
<b>Separate Consultant</b>	A Person engaged by the Owner or Contracting Authority to provide Project-related professional services other than the services under this Contract. The term includes the Separate Consultant's authorized representatives, successors, assigns, and subconsultants regardless of tier.
<b>Separate Contract</b>	The contract between the Owner or Contracting Authority and a Separate Consultant or a Separate Contractor.
<b>Separate Contractor</b>	A Person under contract with the Owner or Contracting Authority to provide Project-related work other than the Work under this Contract. The term includes the Separate Contractor's authorized representatives, successors, assigns, and subcontractors regardless of tier.
<b>Shop Drawings</b>	Drawings, diagrams, illustrations, and schedules specifically prepared for the Project provided by the Contractor or a Subcontractor to illustrate some portion of the Work. Shop Drawings are not Contract Documents. Shop Drawings on equipment shall include a written statement from the manufacturer of the equipment certifying the equipment is in compliance with the Contract Documents.
<b>Site</b>	The location designated for the Project.
<b>Specifications</b>	Those portions of the Contract Documents consisting of detailed written administrative, procedural, and technical requirements, included in Divisions 01 through 49, for the construction of the Work, whether physically on the Drawings or bound in separate volumes, including identification of acceptable materials, methods, equipment, quality, and workmanship.
<b>Stage</b>	A distinct period in the life cycle of a facility from concept through construction, to use and deconstruction or demolition. Typical Stages include Program Verification, Schematic Design, Design Development, Construction Documents, Bidding and Award stages; and the Construction Stage, which includes Construction and Closeout activities.
<b>Standard Requirements</b>	The brief name of the "State of Ohio Standard Requirements for Public Facility Construction," including but not limited to General Conditions, and other Division 00 Documents and Division 01 Sections; currently in effect, which the Commission may modify from time to time.
<b>State</b>	The government of Ohio, including any organized body, office, or agency established by the laws of this state for the exercise of any function of state government, any state institution of higher education as defined in ORC Section 3345.011, or any School District Board as defined in ORC Section 3318.01.
<b>Subcontract</b>	Any contract or agreement between the Contractor and a Subcontractor for performance of a portion of the Work.
<b>Subcontract Form</b>	The <b>State of Ohio Subcontract Form</b> prescribed by OAC Section 153:1-3-02 and required for use with the General Contracting method of project delivery.
<b>Subcontractor</b>	A Person who undertakes to perform any part of the Work on the Project under a contract with a Contractor or with any Person other than the State, including all such Persons in any tier. The term "Subcontractor" includes Material Suppliers, but does not include any Separate Contractor unless expressly assigned in writing to the Contractor by the Owner and accepted by the Contractor.
<b>Substantial Completion</b>	The stage in the progress of the Work when the Work (or designated portion of the Work for which the Contracting Authority and Owner have agreed to take Partial Occupancy) is sufficiently complete in accordance with the Contract that the Owner can utilize the Work for its intended use, as determined by the A/E. The issuance of a certificate of occupancy or partial certificate of occupancy (if applicable) is a condition precedent to the achievement of Substantial Completion.
<b>Substantially Complete</b>	See "Substantial Completion."

**Substitution** An article, device, material, equipment, form of construction, or other item, proposed by a prospective Bidder prior to the bid opening and approved by the A/E by Addendum, for incorporation or use in the Work as being functionally and qualitatively equivalent to essential attributes of a Basis of Design or Acceptable Component specified in the proposed Contract Documents.

**Supplementary Conditions** Amendments to the General Conditions, issued as a separate document, which describe conditions of the Contract unique to a particular Owner or Project, which may include provisions regarding the assignment of responsibility for refuse removal, safety and security precautions and programs, temporary Project facilities and utilities, weather and fire protection, scaffolding and equipment, materials and services to be used commonly by the Contractor and Subcontractors and requiring the Contractor to provide assistance in the utilization of any applicable equipment system, preparation of operation and maintenance manuals, and training of Owner personnel for operation and maintenance of the Project. The General Conditions shall not be superseded or amended by Drawings and Specifications, unless so provided in Supplementary Conditions prepared by the Contracting Authority and approved by the Commission.

**Supplementary Instructions** Amendments to the Instructions to Bidders, issued as a separate document, which describe instructions unique to a particular Owner or Project. The Instructions to Bidders shall not be superseded or amended by Drawings and Specifications, unless so provided in Supplementary Instructions prepared by the Contracting Authority and approved by the Commission.

**Surety** A Person providing a Bid Guaranty or a Bond to a Bidder or a Contractor, as applicable, to indemnify the State against all direct and consequential damages suffered by failure of the Bidder to execute the Contract, or of the Contractor to perform the Contract and to pay all lawful claims of Subcontractors, Material Suppliers and laborers, as applicable.

**Systems Manual** A system focused composite document that includes the operation manual, maintenance manual, and additional information of use to the Owner after they begin using the facility.

**Unit Price** The cost of providing a unit of Work including labor, materials, services, and associated expenses. Unit Prices do not include the Contractor's Fee on account of the associated Unit Price Work.

**Work** The labor, materials, equipment, and services, individually or collectively which are required by the Contract Documents, to be performed or provided by the Contractor for the Project. The furnishing of all material, labor, detailing, layout, supplies, plants, tools, scaffolding, transportation, temporary construction, superintendence, demolition, and all other services, facilities and items reasonably necessary for the full and proper performance and completion of the requirements of the Project as set forth in the Contract Documents, and items reasonably inferable therefrom and consistent therewith for the proper execution and completion of the construction and other services required by the Contract Documents, whether provided or to be provided by the Contractor or a Subcontractor, or any other entity for whom the Contractor is responsible, and whether or not performed or located on or off of the Site.

**END OF DOCUMENT**

**Document 00 72 13 - General Conditions (General Contracting Project)**  
**State of Ohio Standard Requirements for Public Facility Construction**

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**ARTICLE 1 - CONTRACTOR'S RESPONSIBILITIES**

**1.1 Nondiscrimination**

**1.1.1** The Contractor shall comply with Applicable Law regarding equal employment opportunity, including ORC Section 153.59 and all Executive Orders issued by the Governor of the state of Ohio.

**1.1.1.1** As required under ORC Section 153.59, the Contractor agrees to both of the following:

- .1** "in the hiring of employees for the performance of work under the contract or any subcontract, no contractor, subcontractor, or any person acting on a contractor's or subcontractor's behalf, by reason of race, creed, sex, disability or military status as defined in section 4112.01 of the Revised Code, or color, shall discriminate against any citizen of the state in the employment of labor or workers who is qualified and available to perform the work to which the employment relates; and"
- .2** "no contractor, subcontractor, or any person on a contractor's or subcontractor's behalf, in any manner, shall discriminate against or intimidate any employee hired for the performance of work under the contract on account of race, creed, sex, disability or military status as defined in section 4112.01 of the Revised Code, or color."

**1.1.1.2** The Contractor shall cooperate fully with the State's Equal Opportunity Coordinator ("EOC"), with any other official or agency of the state or federal government that seeks to eliminate unlawful employment discrimination, and with all other state and federal efforts to assure equal employment practices under the Contract.

**1.1.1.3** In the event the Contractor fails to comply with these nondiscrimination clauses, the Contracting Authority shall deduct from the amount payable to the Contractor a forfeiture of the statutory penalty pursuant to ORC 153.60 for each person who is discriminated against or intimidated in violation of this **Section 1.1.1**.

**1.1.1.4** The Contract may be terminated or suspended in whole or in part by the Contracting Authority and all money to become due hereunder may be forfeited in the event of a subsequent violation of this **Section 1.1.1**.

**1.1.2 Hiring Under State Public Improvement Contracts.**

**1.1.2.1** Any provision of a hiring hall contract or agreement which obligates the Contractor to hire, if available, only employees referred to the Contractor by a labor organization shall be void as against public policy and unenforceable with respect to employment under any public improvement contract unless at the date of execution of the hiring hall contract or agreement, or within 30 days thereafter, the labor organization has procedures in effect for referring qualified employees for hire without regard to race, color, religion, national origin, military status as defined in ORC Section 4112.01, or ancestry and unless the labor organization includes in its apprentice and

journeyperson's membership, or otherwise has available for job referral without discrimination, qualified employees, both whites and non-whites (including African-Americans).

### **1.1.3 Affirmative Action.**

**1.1.3.1** The Contractor and Subcontractors shall comply with the State's Equal Employment Opportunity requirements described under OAC Sections 123:2-3 through 123:2-9 that include, without limitation, the requirements described under this **Section 1.1.3**.

**1.1.3.2** The Contractor shall demonstrate its good faith efforts to comply with the utilization goals currently established for minority and women employees and submit documentation to the EOC.

**1.1.3.3** By the 10th day of each month, the Contractor and Subcontractors shall submit to the EOC via the internet a completed Ohio Construction Contract Information Report - Input Form 29 (I-29) for the preceding month. The form shall be submitted through the Ohio Business Gateway: <http://business.ohio.gov/efiling/>.

## **1.2 Prevailing Wages**

**1.2.1** The Contractor shall comply with the prevailing wage requirements described under ORC Chapter 4115 that include, without limitation, the requirements described under this **Section 1.2**.

**1.2.2** If the Project is subject to payment of prevailing wage rates, the Contractor shall:

**1.2.2.1** pay to laborers and mechanics performing Work on the Project the prevailing wage rates of the Project locality, as determined by the Ohio Department of Commerce, Wage and Hour Bureau;

**1.2.2.2** post in a prominent place readily accessible by all workers on the Site, a legible listing of the current classifications of laborers, workers, and mechanics employed under this Contract;

**1.2.2.3** ensure that the rates posted are current and remain posted in legible condition during the period of the Contract; and

**1.2.2.4** not be entitled to an increase in the Contract Sum on account of an increase in prevailing wage rates, except as otherwise provided by Applicable Law.

**1.2.3** The Contractor may access the Ohio Department of Commerce, Wage & Hour Bureau at its website, <https://wagehour.com.ohio.gov/w3/webwh.nsf/wrlogin/?openform>, to obtain the current wage rates.

## **1.3 Royalties and Patents**

**1.3.1** The Contractor shall pay all royalties, license fees, and assume all costs incident to the use, in the performance of the Work or the incorporation in the Work, of any invention, design, process, product, or device that is the subject of patent rights or copyrights held by others.

**1.3.2** If the Contractor has reason to believe that use of the specified item is subject to patent or copyright protection, the Contractor shall immediately notify the Contracting Authority.

## **1.4 Assignment of Antitrust Claims**

**1.4.1** By signing the Agreement, the Contractor assigns, conveys and transfers to the Contracting Authority any right, title, and interest to any claims or causes of action it may have or acquire under state or federal antitrust laws relating to any goods, products, or services purchased, procured, or rendered to the State pursuant to the Contract.

## **1.5 Use of Domestic Steel**

**1.5.1** The Contractor is required by law to supply domestically produced steel products used for load bearing structural purposes on all projects funded in whole or in part with State funds.

**1.5.2** The Contractor and Subcontractors shall comply with ORC Section 153.011 regarding the use of domestically produced steel products, and furnish the certifications required by **Section 6.20.8**. Copies of [ORC Section 153.011](#) may be obtained from the Ohio Facilities Construction Commission.

## **1.6 Drug Free Safety Program Participation**

**1.6.1** Throughout the performance of the Work, the Contractor shall be enrolled in and remain in good standing in the Ohio Bureau of Workers' Compensation ("OBWC") Drug-Free Safety Program ("DFSP") or a comparable program approved by the OBWC that meets the requirements specified in ORC Section 153.03 ("OBWC-approved DFSP").

**1.6.2** As required under ORC Section 153.03(E):

**1.6.2.1** “Each contractor shall require all subcontractors with whom the contractor is in contract for the public improvement to be enrolled in and be in good standing in the Bureau of Workers’ Compensation’s Drug-Free Workplace Program or a comparable program approved by the Bureau that meets the requirements specified in section 153.03 of the Revised Code prior to a subcontractor providing labor at the project site of the public improvement.”

**1.6.2.2** “Each subcontractor shall require all lower-tier subcontractors with whom the subcontractor is in contract for the public improvement to be enrolled in and be in good standing in the Bureau of Workers’ Compensation’s Drug-Free Workplace Program or a comparable program approved by the Bureau that meets the requirements specified in section 153.03 of the Revised Code prior to a lower-tier subcontractor providing labor at the project site of the public improvement.”

**1.6.2.3** “Failure of a contractor to require a subcontractor to be enrolled in and be in good standing in the Bureau of Workers’ Compensation’s Drug-Free Workplace Program or a comparable program approved by the Bureau that meets the requirements specified in section 153.03 of the Revised Code prior to the time that the subcontractor provides labor at the project site will result in the contractor being found in breach of the contract and that breach shall be used in the responsibility analysis of that contractor or the subcontractor who was not enrolled in a program for future contracts with the State for 5 years after the date of the breach.”

**1.6.2.4** “Failure of a subcontractor to require a lower-tier subcontractor to be enrolled in and be in good standing in the Bureau of Workers’ Compensation’s Drug-Free Workplace Program or a comparable program approved by the Bureau that meets the requirements specified in section 153.03 of the Revised Code prior to the time that the lower-tier subcontractor provides labor at the project site will result in the subcontractor being found in breach of the contract and that breach shall be used in the responsibility analysis of that subcontractor or the lower-tier subcontractor who was not enrolled in a program for future contracts with the State for 5 years after the date of the breach.”

**1.6.3** Prior to authorizing a Subcontractor to commence Work on the Site, the Contractor shall obtain the Contracting Authority’s approval, and shall also submit written confirmation of the Subcontractor’s enrollment on the **Subcontractor and Material Supplier Declaration** form to the A/E.

**1.6.4** In addition to OBWC-approved DFSP Basic requirements, the Contractor, each Subcontractor, and each Separate Contractor that provides labor on the Site shall participate in a pool that performs random drug testing of at least 5 percent of its employees who perform labor on the Site. The random drug testing percentage shall also include the on-site supervisors of the Contractor, Subcontractors, and Separate Contractors. Basic random drug testing shall otherwise comply with the same testing guidelines and criteria as required for OBWC-approved advanced testing. The Contractor and Subcontractor shall provide evidence of required testing to the Contracting Authority upon request.

**1.7 Use of the State’s Web-based Project Management Software**

**1.7.1** If the Contracting Authority decides, in its sole discretion, to utilize the State’s web-based project management software for the Project, the Contractor shall use such software for all compatible services required under this Contract.

**1.7.2** All costs for the Contractor’s use of the State’s web-based project management software for the Project shall be included in the Contract Sum. If the Contractor is unfamiliar with the proper use of such software, the Contractor shall provide its employees for training without additional compensation.

**1.8 EDGE Participation and Reporting**

**1.8.1** The Contractor shall participate in the “Encouraging Diversity, Growth and Equity” (“EDGE”) Program by subcontracting with, and using one or more, businesses certified as an EDGE Business Enterprise (“EDGE-certified Business”) by the EOC.

**1.8.1.1** If the Contractor is an EDGE-certified Business, the Contractor may include its own compensation under this Contract in the reporting.

**1.8.1.2** The amount of EDGE participation cannot exceed 100 percent of the Contract Sum.

**1.8.1.3** The Contractor shall include in the reporting only those expenditures to EDGE-certified Businesses that perform a commercially useful function as described in OAC Section 123:2-16-15.

**1.8.2** The Contractor shall provide an EDGE Participation Report with each Contractor Payment Request.

**1.8.2.1** The Contractor shall provide status reports, produced by the Contractor and each applicable EDGE-certified Business for the Contract, indicating:

- .1 the name of each EDGE-certified Business;
- .2 the federal tax identification number of each EDGE-certified Business;
- .3 the date of the EDGE-certified Business contract, Subcontract, or purchase order;
- .4 the projected and actual start and end dates of the EDGE-certified Business contract, Subcontract, or purchase order;
- .5 the original amount of the EDGE-certified Business contract, Subcontract, or purchase order with the Contractor;
- .6 the current amount of the EDGE-certified Business contract, Subcontract, or purchase order;
- .7 the amount invoiced to date;
- .8 the amount paid to date;
- .9 the status of the EDGE-certified Business contract, Subcontract, or purchase order (active, complete, or void); and
- .10 a statement describing any substantive product or performance deficiencies.

**1.8.2.2** The Contractor shall provide reports for each EDGE-certified Business; however, the reports may be consolidated and submitted as one document.

**1.8.3** The Contractor shall provide an EDGE Participation Final Report simultaneously with its final Contractor Payment Request.

**1.8.3.1** The Contractor and each EDGE-certified Business shall provide in the report certification that the submitted document is a true and accurate accounting of the original contract amount paid to, and received by, each EDGE-certified Business.

**1.8.4** The Contractor shall provide the EDGE Participation Reports in detail and form acceptable to the Contracting Authority.

**1.8.4.1** Failure to timely submit EDGE Participation Reports may result in withholding payment in accordance with **Section 9.8**.

**1.8.5** If the Project is administered using the State's web-based project management software, the Contractor shall submit its EDGE Participation Reports, using the "Contractor Pay Request" (Agency/Higher Education) or "Applications for Payment" (School Facilities) business process.

**1.8.6** The Contractor shall cooperate fully with requests for additional EDGE information and documentation from the EOC or Contracting Authority.

## **1.9 Owner Work Rules**

**1.9.1** The Contractor shall consult with the Owner to obtain full knowledge of the Owner's rules, regulations, or requirements affecting the Project.

## **1.10 Emergency**

**1.10.1** In the event of an emergency affecting the safety of the Project, other property, or individuals, the Contractor, without special instruction or authorization, shall act to prevent the threatened damage, injury, or loss.

**1.10.2** If the Contractor believes that it is entitled to an adjustment of the Contract Sum or Contract Times, or both, on account of its actions in response to an emergency, the Contractor may request a Modification by giving written notice under **Section 7.3.2**.

## **1.11 Contractor's Standard of Care**

**1.11.1** The Contractor shall perform the Work in a workmanlike manner, consistent with the standards of skill and care exercised by entities licensed to perform (where required under Applicable Law) and regularly performing comparable work in the same or similar locality under the same or similar circumstances.

## **1.12 Limit of Contractor's Responsibility**

**1.12.1** The Contractor is not responsible for the A/E's negligence or the A/E's failure to properly perform the A/E's contract.

### 1.13 Sustainability Requirements

**1.13.1** This Project shall be designed and constructed in accordance with the requirements of Am. Sub. H.B. 251 of the 126<sup>th</sup> General Assembly and the resulting rules, policies, and procedures adopted by the Ohio Facilities Construction Commission establishing Sustainability Requirements for Capital Improvements Projects, including but not limited to the applicable provisions of OAC 3318-3.

**1.13.2** If the Project is designed and constructed under the Leadership in Energy and Environmental Design (“LEED”) Rating System developed by the U.S. Green Building Council or another rigorous rating system used to facilitate achievement of sustainability goals for the Project, the Contractor shall provide submittals certifying achievement of sustainable design rating system criteria for verification by the Green Building Certification Institute or other third party in accordance with the Contract Documents.

## ARTICLE 2 - STATE’S RIGHTS AND RESPONSIBILITIES

### 2.1 Contracting Authority

**2.1.1** The Contracting Authority shall designate a Project Manager for the Project. The Project Manager is authorized to act on behalf of the Contracting Authority to perform specific responsibilities under the Contract.

**2.1.2** The Contracting Authority shall furnish information and services required of it in a timely manner.

**2.1.3** The Contracting Authority shall have access to the Work at all times, whenever the Project is in preparation or progress.

**2.1.4** The Ohio Facilities Construction Commission requires use of its forms where indicated in the Contract Documents. The party responsible for initiating forms shall utilize the latest edition obtained from the Commission’s website: <http://ofcc.ohio.gov>. The Commission may make modifications to its forms at any time.

**2.1.4.1** The Contractor shall not modify any form provided by the Commission or Contracting Authority.

**2.1.4.2** If the Project is administered using the State’s web-based project management software, the Contractor shall utilize the web-based forms and reports within the applicable business process. The State’s web-based project management software is sponsored by the Commission, and such web-based forms and reports are acceptable to the Commission in lieu of its paper forms.

**2.1.5** The Contracting Authority is not responsible for construction means, methods, manners, techniques, sequences, procedures, or for safety precautions and programs in connection with the Work, or for the Contractor’s failure to carry out the Work in conformity with the Contract Documents.

### 2.2 Owner

**2.2.1** The Owner shall designate a representative authorized to act on behalf of the Owner during the Project.

**2.2.2** The Owner shall furnish information and services required of it in a timely manner.

**2.2.3** The Owner shall have access to the Work at all times whenever the Project is in preparation or progress.

**2.2.4** Upon issuance of the Notice to Proceed, the Owner shall provide the Site to the Contractor in a condition to permit the Contractor to perform the Work.

**2.2.5** The Owner may request a change in the Work if the A/E recommends and the Contracting Authority approves the change.

**2.2.6** The Owner shall communicate with the Contractor through the Contracting Authority.

**2.2.7** The Owner is not responsible for construction means, methods, manners, techniques, sequences, procedures, or for safety precautions and programs in connection with the Work, or for the Contractor’s failure to carry out the Work in conformity with the Contract Documents.

### 2.3 Approval of Owner, Contracting Authority, and State

**2.3.1** The Owner, Contracting Authority, or State’s review and approval of the Work and any information the Contractor submits to them is for the sole purpose of determining whether the Work and information are generally consistent with the Contract’s intent, and will not relieve the Contractor of its sole responsibility for the performance, preparation, completeness, and accuracy of the Work and information.

## 2.4 Neutral Facilitation

**2.4.1** The Contracting Authority or Owner may engage a Neutral Facilitator for the purposes of **(1)** building cooperative relationships among the Project participants to achieve discrete objectives; **(2)** encouraging educated, productive, and expedited attempts to avoid, minimize, and resolve disputes; and **(3)** maximizing the effectiveness of each participant's resources.

**2.4.1.1** For example, a Neutral Facilitator may facilitate the organizational meeting, partnering session(s), and efforts to resolve disputes throughout the Project.

**2.4.2** The Contracting Authority, Owner, and Contractor are entitled to interact with the Neutral Facilitator with the full expectation that **(1)** they may act, speak, and disclose information with complete candor and **(2)** all communication, whether oral or written, made in the course of facilitated sessions is confidential.

**2.4.3** At any hearing or proceeding regarding any dispute arising out of or related to the Project **(1)** the Neutral Facilitator will not be competent to testify and shall not be called as a witness and **(2)** the Neutral Facilitator's testimony and work product will not be admissible.

**2.4.4** The Neutral Facilitator will not **(1)** perform any services with respect to or bear any responsibility for any legal services, design-professional services, construction, or construction management associated with the Project or **(2)** have any liability whatsoever for any claims related to any legal services, design-professional services, construction, or construction management associated with the Project, including without limitation, claims for legal or design-professional errors or omissions, delays, cost overruns, faulty construction, or increased costs.

**2.4.5** The Neutral Facilitator's participation in the Project will not relieve the Contracting Authority, Owner, and Contractor of any of their respective rights or obligations under the Contract.

## 2.5 Contractor Performance Evaluation

**2.5.1** The Contracting Authority may evaluate the Contractor's performance during the progress of the Work, at completion of a phase of the Project, completion of the Project, or any of the foregoing. The Contracting Authority shall retain the evaluation(s).

**2.5.1.1** The Contractor may request a copy of the completed evaluation(s). If the Contractor wishes to comment or take exception to any rating or remark, the Contractor must send a response in writing to the Contracting Authority within 30 days of receiving the evaluation(s).

**2.5.1.2** The Contracting Authority may use the evaluation(s) in determining the responsibility of the Contractor for award of future contracts.

**2.5.1.3** The Contracting Authority may request information from the Contractor for use in evaluating the A/E's performance. If information is requested, the Contractor must comply in a timely and responsive manner.

**2.5.1.4** If a breach of the Contract is committed by the Contractor or is attributable to a Subcontractor, that breach will be used in the responsibility analysis of the Contractor and Subcontractor (where applicable) for future contracts with the State or subcontracts on State projects for 5 years after the date of the breach.

**2.5.1.5** If the Project is administered using the State's web-based project management software, the Contractor shall receive and review the Contracting Authority's evaluation of the Contractor's performance and respond with its comments, using the "Contractor Evaluation" business process.

## ARTICLE 3 - A/E'S RESPONSIBILITIES

### 3.1 The A/E's Contract Administration Duties

**3.1.1** The A/E shall administer the Contract as provided in the Contract Documents and Architect/Engineer Agreement, including, but not limited to, performance of the functions described as follows:

**3.1.1.1** The A/E shall attend and conduct progress meetings. The A/E shall prepare an agenda and produce a written report of each progress meeting, and distribute the report to the Contracting Authority, Owner, and Contractor within 3 business days after the meeting. The A/E shall not delegate the duty to prepare the agenda and written reports of any progress meeting.

**3.1.1.2** The A/E may authorize minor changes or alterations in the Work that are consistent with the intent of the Contract Documents and do not involve adjustment of the Contract Sum or Contract Times, or both. The A/E has no authority to authorize the Contractor to perform additional or extra Work for which the Contractor may seek adjustment of the Contract Sum or Contract Times, or both.

**3.1.1.3** The A/E shall review and recommend, certify, or approve applicable forms required under the Contract Documents.

**3.1.1.4** The A/E shall render decisions in connection with the Contractor's responsibilities under the Contract Documents, and submit recommendations to the Contracting Authority for enforcement of the Contract as necessary.

**3.1.2** The A/E is the initial interpreter of all requirements of the Contract Documents. All decisions of the A/E are subject to final determination by the Contracting Authority.

### **3.2 Site Visits and Observation**

**3.2.1** The A/E shall notify, advise, and consult with the Contracting Authority and Owner and protect the State against Defective Work throughout completion of the Project, which includes the Correction Period.

**3.2.1.1** The A/E shall designate a field representative, subject to the Contracting Authority's approval, to attend to the Project, to observe and check the progress and quality of the Work, and to take action as necessary or appropriate to achieve conformity with the Contract Documents.

**3.2.1.2** The A/E shall have its consultants attend to the Project at intervals required by its agreement or the Contracting Authority.

**3.2.2** The A/E is authorized to disapprove or reject Defective Work. The A/E shall immediately notify the Contracting Authority any time the A/E disapproves or rejects an item of Work.

**3.2.3** The A/E is not responsible for construction means, methods, manners, techniques, sequences, procedures, or for safety precautions and programs in connection with the Work, or for the Contractor's failure to carry out the Work in conformity with the Contract Documents.

### **3.3 Testing and Inspection Services**

**3.3.1** Unless otherwise specified in the Contract Documents, the A/E shall apply for, secure, and pay for the costs of structural testing and special inspections under Chapter 17 of the Ohio Building Code; testing including geotechnical analysis, environmental testing and analysis, concrete, masonry, structural steel, reinforcing steel, welding, bolts, steel connections, HVAC systems and controls, plumbing and piping, air and water balancing and testing, or other testing; or approval required by Applicable Law.

### **3.4 Approval of A/E**

**3.4.1** The A/E's review and approval of the Work and any information the Contractor submits to the A/E is for the sole purpose of determining whether the Work and information are generally consistent with the Contract's intent, and will not relieve the Contractor of its sole responsibility for the performance, preparation, completeness, and accuracy of the Work and information.

### **3.5 Limitation of A/E's Authority**

**3.5.1** Under no circumstances is the A/E authorized to:

**3.5.1.1** bind the Owner or Contracting Authority to any authorizations under, modifications of, or amendments to any contract other than as expressly described under **Section 3.1.1.2**;

**3.5.1.2** accept any defective or non-conforming services, Work, or vendor-furnished items;

**3.5.1.3** make any settlements on behalf of the Owner or Contracting Authority; or

**3.5.1.4** assume any responsibilities of the Contractor or Subcontractors.

## **ARTICLE 4 - SUBCONTRACTORS**

### **4.1 Evaluation and Approval**

**4.1.1** Within 10 days after the Notice to Proceed, or other period as mutually agreed by the Contractor and Contracting Authority, the Contractor shall submit to the A/E a **Subcontractor and Material Supplier Declaration** form through which the Contractor identifies its Subcontractors.

**4.1.2** The Contractor's failure to timely submit the information regarding a proposed Subcontractor may result in withholding payment in accordance with **Section 9.8**.

**4.1.3** After receiving the **Subcontractor and Material Supplier Declaration** form, the A/E shall verify that it is complete and deliver it to the Contracting Authority and Owner. If the A/E finds the form incomplete, the A/E shall return it to the Contractor and identify the incomplete information.

**4.1.4** If the Contracting Authority rejects any proposed Subcontractor, the Contractor shall propose a replacement Subcontractor with no adjustment of the Contract Sum. The proposed replacement Subcontractor will be evaluated as described above.

**4.1.5** No less than 10 days before Work is to be performed by the Subcontractor, or within a shorter period as mutually agreed by the Contractor and Contracting Authority, the Contractor shall submit to the Contracting Authority a complete copy of the executed Subcontract between the Contractor and Subcontractor.

**4.1.6** If the Project is administered using the State's web-based project management software, the Contractor shall identify its proposed Subcontractors and submit its Subcontracts through the "Subcontractor Supplier Declaration" business process.

## **4.2 Form of Subcontract**

**4.2.1** All Subcontracts shall be on the **State of Ohio Subcontract Form** prescribed by OAC Section 153:1-03-02.

**4.2.2** No less than 10 days before Work is to be performed by a Subcontractor, or within a shorter period as mutually agreed by the Contractor and Contracting Authority, the Contractor shall submit to the Contracting Authority and A/E a complete copy of the executed Subcontract between the Contractor and Subcontractor. After receiving the Subcontract, the A/E shall verify that it is complete and deliver it to the Contracting Authority. If the A/E finds the Subcontract incomplete, the A/E shall return it to the Contractor and identify the incomplete information.

## **4.3 Replacement of Subcontractors**

**4.3.1** The Contractor shall not replace any Subcontractor after execution of the Subcontract without the prior written approval of the Contracting Authority.

## **4.4 Contractor's Responsibility**

**4.4.1** The Contractor is fully responsible for all acts and omissions of its Subcontractors and is responsible for scheduling and coordinating the Work of its Subcontractors.

**4.4.1.1** The Contractor is fully responsible for any delay, interference, disruption, or hindrance attributable to the Contractor's Subcontractors.

**4.4.1.2** The Contractor shall require that each of its Subcontractors have a competent supervisor at the Site whenever the Subcontractor is performing Work.

**4.4.1.3** The Contractor shall bind its Subcontractors to the terms of the Contract Documents, so far as applicable to the Work of the Subcontractor, and shall not agree to any provision, which seeks to bind the State to terms inconsistent with or at variance from the Contract Documents.

**4.4.2** The Contractor will not be relieved of its full responsibility for Subcontractors and their performance of the Work by (1) the participation of the Owner, Contracting Authority, and A/E in the processes described under this **Article 4** or other related provisions of the Contract Documents or (2) the Contracting Authority's rejection of a Subcontractor or failure to reject a Subcontractor under **Section 4.1**.

## **4.5 Contingent Assignment of Subcontracts**

**4.5.1** The Contractor hereby assigns its agreement with each Subcontractor to the Contracting Authority provided that the assignment is effective only after termination of the Contract by the Contracting Authority and only for those agreements that the Contracting Authority accepts by notifying the Contractor and applicable Subcontractor in writing. The Contracting Authority may re-assign accepted agreements.

## **4.6 Prompt Payment**

**4.6.1** The Contractor shall make payments to Subcontractors in accordance with Applicable Law, including ORC Section 4113.61 that include, without limitation, the requirements described under this **Section 4.6**.

**4.6.1.1** If a Subcontractor requests payment in time to allow the Contractor to include the request in its Contractor Payment Request, the Contractor shall pay within 10 days after receipt of payment from the State:

- .1** To a Subcontractor other than a Material Supplier, an amount equal to the percent of completion allowed by the Contracting Authority for the Subcontractor's Work.

- .2 To a Material Supplier, an amount equal to all or that portion of the Contractor Payment Request that represents the materials furnished by the Material Supplier.

**4.6.2** The Contractor may reduce the amount paid to a Subcontractor pursuant to **Section 4.6.1** at a rate equal to the percentage retained from the Contractor and may withhold amounts necessary to **(1)** resolve disputed liens or claims involving the Work of the Subcontractor or **(2)** account for the failure of the Subcontractor to perform its obligations under its agreement with the Contractor.

**4.6.2.1** Labor Payments.

- .1 Partial payments to the Subcontractor for labor performed under either a Unit Price or lump sum Subcontract shall be made at the rate of 92 percent of the amount invoiced through the Subcontractor's request for payment that shows the Work of the Subcontractor is 50 percent complete.
- .2 After the Work of the Subcontractor is 50 percent complete, as evidenced by payments of at least 50 percent of the total amount due under the Subcontract, no additional funds shall be retained from payments for labor.

**4.6.2.2** Material Payments.

- .1 The Contractor shall pay the Subcontractor at the rate of 100 percent of the scheduled value for materials incorporated into the Project.
- .2 The Contractor shall pay the Subcontractor at the rate of 92 percent of the invoice cost, not to exceed the scheduled value in a Unit Price or lump sum Subcontract, for materials delivered to the Site, or other off-site storage location approved by the A/E, provided the Subcontractor provides the information required by **Sections 9.6.2.1** and **9.6.2.2** with its request for payment.

**4.6.3** If the Contractor fails to comply with this **Section 4.6**, the Contractor shall pay to the applicable Subcontractor 18 percent interest, compounded annually, on any unpaid amount beginning on the 11th day after receipt of payment from the State.

**4.6.4** In order to establish lien rights, Subcontractors shall comply with Applicable Law, including ORC Sections 1311.26, 1311.261, and 1311.29.

**4.6.5** If the Contracting Authority receives a Claim Affidavit from a Subcontractor, it shall proceed as required by Applicable Law, including ORC Sections 153.63 and 1311.31.

**4.6.6** Laborers, Subcontractors, and Material Suppliers may secure payment rights in accordance with Applicable Law, including ORC Section 153.56.

## **ARTICLE 5 - PRECONSTRUCTION ACTIVITIES**

### **5.1 Partnering**

**5.1.1** The formation of a cohesive, mutually beneficial partnering arrangement among the Contractor, Contracting Authority, A/E, and Owner will accomplish the construction of the Project most effectively and efficiently. This arrangement draws on their collective strengths, skills, and knowledge to achieve a Project of the intended quality, within budget, and on schedule. To achieve that objective, participation in a partnering session is required for the following key stakeholders:

- 5.1.1.1** Contracting Authority: Project Manager
- 5.1.1.2** Owner: Primary representative
- 5.1.1.3** A/E: Principal-in-charge, project manager, field representative, major consultants
- 5.1.1.4** Contractor: Principal-in-charge, project manager, and superintendent
- 5.1.1.5** Major Subcontractors (e.g., plumbing, HVAC, electrical): Principal-in-charge, project manager or superintendent
- 5.1.1.6** CxA, if applicable

**5.1.2** The purpose of the partnering arrangement is to build cooperative relationships between the Project's key stakeholders, avoid or minimize disputes, and nurture a more collaborative ethic characterized by trust, cooperation and teamwork. This arrangement is intended to produce a voluntary, non-binding, but formally structured agreement among the Project's key stakeholders, leading to an attitude that fosters risk sharing.

**5.1.3** To create and implement the partnering arrangement, the Project's key stakeholders shall meet prior to the construction of the Project for developing a partnering agreement. The agreement should be comprehensive and focus on all issues necessary for successful completion of the Project, and shall identify common goals and objectives, develop a problem solution process, an Alternative Dispute Resolution ("ADR") strategy in accordance with **Section 8.13**, and an implementation plan for the partnering arrangement.

**5.1.4** Formal contractual relations, responsibilities, and liabilities are not affected by any partnering arrangement. The cost associated with establishing this partnership, including but not limited to engaging the services of a Neutral Facilitator, shall be included in an allowance in the Contractor's bid. The Contractor shall include in its base bid the resources necessary to participate in the partnering session.

**5.1.5** Partnering services may extend over the entire period of performance of the Contract and may include intervention or project realignment services to be utilized if serious disputes arise. The Project's key stakeholders should agree, during the initial partnering session, to the types of situations and circumstances in which intervention or realignment services shall be utilized.

## **5.2 Building and Trade Permits and Licenses**

### **5.2.1 Plan Approval.**

**5.2.1.1** The A/E shall secure the required structural, plumbing, HVAC, and electrical plan approvals.

**5.2.1.2** The Contractor shall schedule and attend all intermediate and final inspections required for any permit applicable to the Work. The Contractor shall schedule the State Fire Marshal or local fire authority for the life safety inspection for occupancy permits. The Contractor shall give the A/E, Contracting Authority, and Owner reasonable notice of the dates and times arranged for inspections.

- .1 The Contractor shall pay for any reinspections required as a result of the Contractor's failure to receive approval of its Work.

### **5.2.2 Trade Permits and Licenses.**

**5.2.2.1** The Contractor shall obtain, maintain, and pay for any permit, inspection, or license applicable to the Contractor's particular trade.

### **5.2.3 Local Permits.**

**5.2.3.1** The Contractor shall secure and pay the fees for any permits, inspections, licenses, capacity charges, or tap fees required by local authorities having jurisdiction over the Project. The Contractor shall give the A/E, Contracting Authority, and Owner reasonable notice of the date arranged for inspections.

### **5.2.4 National Pollutant Discharge Elimination System ("NPDES") Storm Water General Permit.**

**5.2.4.1** The A/E shall secure the NPDES general permit by submitting a Notice of Intent ("NOI") application form to the Ohio Environmental Protection Agency at least 45 days prior to the start of construction. The Contractor shall be a "co-permittee" if required under Applicable Law.

**5.2.4.2** The A/E shall prepare and certify a storm water pollution prevention plan to provide sedimentation and erosion controls at the Project.

**5.2.4.3** The A/E shall prepare and process the required Notice of Termination ("NOT") prior to Contract Completion.

## **ARTICLE 6 - CONSTRUCTION AND CLOSEOUT**

### **6.1 Commencement of Work on the Site**

**6.1.1** Unless the Contracting Authority agrees otherwise in writing, the Construction Stage will commence with the Contracting Authority's issuance of the Notice to Proceed and will terminate upon Contract Completion.

### **6.2 Responsibility of the Contractor**

**6.2.1** The Contractor shall complete portions of the Work in the sequence and time in the Construction Progress Schedule.

**6.2.2** The Contractor shall supervise the Work.

**6.2.3** The Contractor must perform the Work so as not to interfere with, disturb, hinder, or delay the services of Separate Consultants or the work of Separate Contractors. The Contractor must cooperate and coordinate fully with all Separate

Consultants and Separate Contractors and must freely share all of the Contractor's Project-related information with them to facilitate the timely and proper performance of the Work and of the services and work of the Separate Consultants and Separate Contractors.

**6.2.4** The Contractor must afford every Separate Consultant and Separate Contractor proper and safe access to the Site and a reasonable opportunity for the introduction and storage of materials and equipment and the execution of their services and work.

**6.2.5** If the Contractor damages the property or work of any Separate Consultant or Separate Contractor, or by failure to perform the Work with due diligence, delays, interferes with, hinders, or disrupts the services of any Separate Consultant or the work of any Separate Contractor who suffers additional expense and damage as a result, the Contractor is responsible for that damage, injury, or expense.

**6.2.6** The intent of **Sections 6.2.3** through **6.2.5** is to benefit the Separate Consultants and Separate Contractors, and to demonstrate that the Separate Consultants and Separate Contractors are intended third-party beneficiaries of the Contractor's obligations under the Contract.

**6.2.7** If the proper execution or results of any part of the Work depends upon work performed or services provided by the Owner, a Separate Consultant, or a Separate Contractor, the Contractor must inspect that other work and appropriate instruments of service, and promptly report to the Contracting Authority in writing any defects or deficiencies in that other work or services that render it unavailable or unsuitable for the proper execution and results of the Work. The Contractor's failure so to report will constitute an acceptance of the other work and services as fit and proper for integration with the Contractor's Work except for defects and deficiencies in the other work or services that were not reasonably discoverable at the time of the Contractor's inspection.

**6.2.8** The Contractor shall not delay the Work on account of any claim, dispute, or action between the Contractor and a Separate Consultant or Separate Contractor.

**6.2.9** The Contractor shall develop and keep current the Construction Progress Schedule in accordance with **Section 6.5**, and prepare and keep current a schedule of submittals that is coordinated with the Construction Progress Schedule, for the A/E and Contracting Authority's acceptance.

**6.2.10** The Construction Progress Schedule shall not exceed the time limits current under the Contract Documents, shall provide for reasonable, efficient, and economical execution of the Project, and shall relate to the entire Project to the extent required by the Contract Documents.

**6.2.11** The Contractor shall use the Construction Progress Schedule to plan, organize, and execute the Project, record and report actual performance and progress, and show how it plans to coordinate and complete all remaining work by Contract Completion.

**6.2.12** The Contractor shall monitor the progress of the Work for conformance with the Construction Progress Schedule and shall initiate revisions as required by **Section 6.5.14**.

**6.2.13** The Contractor shall establish the Project's regular working hours, subject to approval by the A/E and the Owner.

**6.2.14** The Contractor shall coordinate the Work with the activities and responsibilities of the A/E, Owner, and Contracting Authority to complete the Project in accordance with the Contract Documents.

**6.2.15** In the event of default of the Contractor, the Contractor shall cooperate with the A/E, Contracting Authority, and Contractor's Surety to achieve the Substantial Completion date and Contract Completion.

**6.2.16** The Contractor shall remove all snow and ice as may be required for reasonably safe access to the Project including, but not limited to, building entries, driveways, parking lots, and sidewalks.

**6.2.17** The Contractor shall keep a daily log containing a record of weather, number of workers on Site for the Contractor, identification of equipment, Work accomplished, problems encountered, and other similar relevant data.

### **6.3 Construction Procedures**

**6.3.1** The Contractor is solely responsible for and has control over all construction means, methods, manners, techniques, sequences, and procedures, for safety precautions and programs in connection with the Work, and for coordinating all portions of the Work.

**6.3.1.1** If the Contract Documents give instructions that affect construction means, methods, manners, techniques, sequences, or procedures, the Contractor shall evaluate the jobsite safety of them and, except as stated below, shall

be fully and solely responsible for the jobsite safety of the means, methods, manners, techniques, sequences, or procedures.

**6.3.1.2** If the Contractor determines that the means, methods, manners, techniques, sequences, or procedures specified in the Contract Documents may not be safe, the Contractor shall give timely written notice to the A/E, Owner, and Contracting Authority. The Contractor shall not proceed with that portion of the Work without further written instructions from the A/E. Any modification of the Contract shall be in accordance with **Article 7**.

**6.3.2** The Contractor shall lay out and coordinate all lines, levels, elevations, and measurements for all of the Work, coordinate and verify existing conditions, and notify the A/E of discrepancies and conflicts before proceeding with installation or excavation.

**6.3.3** The Contractor shall perform all cutting, fitting, or patching required for the Work and shall not endanger the Project by cutting, excavating, or otherwise altering the Project, or any part of it.

**6.3.3.1** If the Contractor requires sleeves for the Work, the Contractor shall furnish and install the sleeves. The Contractor is responsible for the exact location and size of all holes and openings required to be formed or built for the Work.

**6.3.3.2** The Contractor's patching shall match and blend with the existing or adjacent surface(s).

**6.3.4** The Contractor shall comply with ORC Sections 3781.25 through 3781.32. In addition, before starting excavation or trenching, the Contractor shall determine the location of any underground utilities and notify any public authority or utility having jurisdiction over the Project and secure any required approval.

**6.3.4.1** The Contractor shall give notice at least 2 business days in advance of excavation to the owners of underground utilities registered with the Ohio Underground Utility Protection Services ("OUPS" at <http://oups.org>, phone 811 or 800-362-2764), and the owners of underground utilities shown on the Drawings and Specifications who are not registered members of OUPS. The owner of an underground utility is required within 48-hours' notice to stake, mark, or otherwise designate the location of its utilities in the construction area together with its approximate depth. In the event that any underground utility owner fails to timely perform, the Contractor shall notify the A/E and contact the owner of the underground utility.

**6.3.5** The Contractor shall install all Work in accordance with the Contract Documents and any installation recommendations of the manufacturer, including required temperature and humidity limits for installation of the various materials.

**6.3.6** The Contractor shall comply with all requirements and conditions of the NPDES general permit, including, but not limited to, implementing and maintaining the sedimentation and erosion control measures specified in the storm water pollution prevention plan prepared by the A/E pursuant to **Section 5.2.4**, which are related to the Work, maintaining records of its construction activities, removing materials no longer required, and taking proper action if there is a reportable quantity spill.

**6.3.7** The Contractor shall communicate with the Contracting Authority and Owner through the A/E.

## 6.4 Construction Supervision

**6.4.1** Unless waived by the Contracting Authority in writing, the Contractor shall provide continuous supervision at the Site by a competent superintendent when any Work is being performed and the Contractor's superintendent shall not be involved with any work other than the Project.

**6.4.2** The Contractor's project manager and superintendent shall each have the responsibility and authority to act on behalf of the Contractor. All communications to the Contractor's project manager or superintendent shall be binding as if given directly to the Contractor.

**6.4.3** The Contractor shall submit an outline of the qualifications and experience of the Contractor's proposed project manager and proposed superintendent, including references, to the Contracting Authority no less than 10 days of the Notice to Proceed. For all Subcontracts in excess of \$200,000, and for all other Subcontracts on request from the Contracting Authority, the Contractor shall submit an outline of the qualifications and experience of the Subcontractor's proposed project manager and proposed superintendent, including references, to the Contracting Authority no less than 10 days before the Subcontractor is scheduled to begin Work on the Site.

**6.4.3.1** The Contracting Authority may reject the Contractor or Subcontractor's proposed project manager or proposed superintendent. If the Contracting Authority does not notify the Contractor of the rejection within 30 days after receiving the required information, it shall indicate that the Contracting Authority has no objection, but does

not affect the Contracting Authority's rights under **Section 6.12.2** or any other provision relative to that project manager or superintendent.

**6.4.3.2** If the Contracting Authority rejects the Contractor or Subcontractor's proposed project manager or proposed superintendent, the Contractor shall replace, or cause the Subcontractor to replace the project manager or superintendent (as appropriate) with someone acceptable to the Contracting Authority at no additional cost.

**6.4.4** The Contractor and its Subcontractors subject to **Section 6.4.3** shall not replace their respective project managers or superintendents without prior written approval of the Contracting Authority.

**6.4.4.1** If the Contractor or a Subcontractor subject to **Section 6.4.3** proposes to change its project manager or superintendent, the Contractor shall submit written justification to the Contracting Authority, along with the name and qualifications of the proposed replacement.

**6.4.4.2** The procedure provided in **Section 6.4.3** shall be conducted to evaluate the Contractor or Subcontractor's (as applicable) proposed replacement project manager or superintendent.

## 6.5 Construction Progress Schedule

**6.5.1** If the Estimated Construction Cost is less than \$500,000, the Contractor may provide a bar chart schedule with a logical sequence of events and sufficient detail to properly anticipate and monitor construction progress. If the Estimated Construction Cost for the Project is \$500,000 or more, the Contractor shall prepare and maintain a resource-loaded Construction Progress Schedule using the critical-path method of scheduling that provides the following information:

**6.5.1.1** a graphic presentation of the sequence of the Work for the Project in the media and format required for the Project;

**6.5.1.2** identification of each stage of the Work and any Milestone dates;

**6.5.1.3** identification of activities and durations for review and approval of Shop Drawings and other action submittals, fabrication and review of mock-up Work, product review and procurement, fabrication, shop inspection, and delivery, including, but not limited to, lead time, coordination drawing delivery, Substantial Completion, Punch List, Punch List Correction, Project close-out requirements, occupancy requirements, and Contract Completion;

**6.5.1.4** identification of disruptions and shutdowns due to other operations;

**6.5.1.5** identification of the critical path of the Work;

**6.5.1.6** identification of the crew size and total resource hours for each activity in the schedule; and

**6.5.1.7** the Contractor's signature and date indicating approval.

**6.5.2** The Contractor shall develop the Construction Progress Schedule using commercially available, personal computer software acceptable to the Contracting Authority and shall submit all baseline and updated schedules to the A/E in the schedules' native electronic format.

**6.5.3** The Construction Progress Schedule shall not exceed the time limits current under the Contract Documents, shall provide for reasonable, efficient, and economical execution of the Project, and shall relate to the entire Project to the extent required by the Contract Documents.

**6.5.4** The Contractor shall use the Construction Progress Schedule to plan, organize, and execute the Project, record and report actual performance and progress, and show how it plans to coordinate and complete all remaining Work within applicable Milestones. The Project participants shall use the Construction Progress Schedule as a tool for scheduling and reporting sequenced progress of the Work. The Contractor shall provide a clear graphics legend and other data including, but not limited to, Milestone dates, constraints, and other items required by the Project, A/E, Contracting Authority, and Owner. Each submission shall show the Contracting Authority's Project number and Project name, and provide a signature approval and date line for the Contractor.

**6.5.5** The Contractor shall provide in each schedule: Activity identification and description for each activity broken down to a maximum duration that is appropriate for the activity, responsibility of the Contractor, Contractor's resources and crew size for each activity, provide early start, early finish, late start, late finish dates. Each schedule shall show predecessor activities and successor activities for each activity, entry free float, total float, and percentage of completion, and identify the appropriate predecessors and successors for all related activities.

**6.5.6** The Construction Progress Schedule shall show all submittal dates, review and approval durations for coordination drawings, Shop Drawings, other action submittals, and mock-up Work.

**6.5.7** Within 30 days of the date of the Notice to Proceed, the Contractor shall submit to the A/E a proposed Construction Progress Schedule approved by the Contractor. If the Project is \$4 million total construction cost or more, the Contractor

may submit an intermediate Bar Chart Schedule for the first 120 days to the A/E within 30 days of the date of the Notice to Proceed; followed by the complete resource-loaded precedence or arrow diagram schedule within 90 days of the date of the Notice to Proceed.

**6.5.7.1** The Contractor shall submit the initial and all updates of the Construction Progress Schedule in graphic and tabular form to the A/E. With each monthly schedule update, the Contractor shall include a list of all changes to the previously approved baseline schedule or monthly updated schedule.

**6.5.7.2** After receiving the Construction Progress Schedule, the A/E shall review and submit a copy of the Construction Progress Schedule to the Contracting Authority and Owner for review and acceptance, or reject and return it to the Contractor with recommendations for revisions.

**6.5.7.3** If the Project is administered using the State's web-based project management software, the Contractor shall create, approve, and submit the initial and all updates of the Construction Progress Schedule to the A/E, Contracting Authority, and Owner through the "Schedule Approvals" business process.

**6.5.8** The Construction Progress Schedule shall be managed using early start dates and early finish dates. The Contractor must exhaust existing float before claiming additional time for a Change Order, or show that it is not possible to use float to cover the time requirements of the Change Order.

**6.5.9** The Contractor's failure to timely submit and properly maintain an approved Construction Progress Schedule may result in withholding payment in accordance with **Section 9.8**.

**6.5.10** For each progress meeting, the Contractor shall provide a 2- to 6-week look-ahead schedule, as appropriate for the Project.

**6.5.11** On a weekly basis, the Contractor shall prepare and submit to the A/E a written report describing:

**6.5.11.1** activities begun or finished during the preceding week;

**6.5.11.2** activities in progress and expected completion;

**6.5.11.3** activities to be started or finished in the upcoming 2 weeks, including but not limited to, the Contractor's workforce size and total resource hours associated with those activities; and

**6.5.11.4** other information requested by the A/E.

**6.5.12** The A/E shall attach the above information to the minutes of the weekly progress meetings.

**6.5.13** The Contractor shall provide monthly Progress Status Reports to the Contracting Authority, A/E, and Owner, which shall include recommendations for adjusting the Construction Progress Schedule to meet Milestone dates and the Substantial Completion date.

**6.5.13.1** If it is apparent to the A/E that the Contractor may be unable to meet critical path activities, Milestone completion dates, or the Substantial Completion date, the A/E shall direct the Contractor to submit within 3 days a recovery plan to avoid or minimize delay to the Project.

**6.5.13.2** A recovery plan shall include, but is not limited to, adjustments to one or more of the following:

- .1 workforce
- .2 hours per shift
- .3 shifts per workday
- .4 workdays per week
- .5 equipment
- .6 activity logic

**6.5.13.3** If the A/E approves the recovery plan, the Contractor shall prepare a revised Construction Progress Schedule approved in accordance with **Section 6.5.7**. If the A/E does not approve the recovery plan, the Contractor shall submit within 3 days an alternate recovery plan to the A/E in writing for review and approval in accordance with **Section 6.5.7**.

**6.5.14** The Contractor shall update the Construction Progress Schedule on a monthly basis, or other interval approved by the Contracting Authority, in accordance with **Section 6.5.7**.

**6.5.14.1** The updated Construction Progress Schedule approved by the Contractor shall serve as an affirmation that the Contractor can meet the requirements of the updated Construction Progress Schedule.

**6.5.14.2** The Contractor shall submit a tabular copy showing all changes to the previously approved schedule including, but not limited to, logic, float, and actual start date of activities. The original or initially approved

Construction Progress Schedule and all subsequent Construction Progress Schedules submitted by the Contractor, and accepted by the A/E, shall serve as an affirmation that the Contractor agrees to and can meet the applicable requirements of the updated Construction Progress Schedule.

**6.5.15** The Contractor's failure to timely submit an approved, updated Construction Progress Schedule may result in withholding payment in accordance with **Section 9.8**.

## 6.6 Progress Meetings

**6.6.1** The A/E shall schedule a weekly progress meeting for the Contractor and other Persons involved in the Project. The purpose of the progress meeting is to review progress on the Project during the previous week, discuss anticipated progress during the following weeks, review critical operations, and discuss critical problems.

**6.6.2** The Contractor shall be represented at every progress meeting by a Person authorized with signature authority to make decisions regarding possible modification of the Contract Documents or Construction Progress Schedule.

**6.6.2.1** The A/E shall notify the Contractor and other Persons involved in the Project of the time and place of the progress meeting that shall thereafter be the same day and hour of the week for the duration of the Project, unless the A/E notifies the Contractor and other Persons involved in the Project of a different day and hour at least 2 days in advance.

**6.6.2.2** The Contractor shall have any of its Subcontractors attend the progress meeting as determined advisable by the Contractor, or as requested by the A/E.

**6.6.3** The A/E shall prepare a written report of each progress meeting and distribute the report to the Contracting Authority, Owner, and Contractor. The A/E shall not delegate the duty to prepare a written report of any progress meeting.

**6.6.3.1** If any Person in attendance objects to anything in a report of a progress meeting, the Person shall notify the A/E, Contracting Authority, and any other affected Person in writing explaining the objection within 5 days.

**6.6.3.2** The report of each progress meeting shall reflect any objection made to the report of the previous progress meeting and any response.

**6.6.3.3** If the Project is administered using the State's web-based project management software, the Contractor shall receive written reports of progress meetings from the A/E through the "Meeting Minutes" business process, and issues identified during progress meetings that require resolution by one or more Project participants shall be documented through the "Action Items" business process.

## 6.7 Project Coordination

**6.7.1** The Contractor shall prepare drawings ("Coordination Drawings") after the Contractor and appropriate Subcontractors ("Coordination Participants") **(1)** determine the sequence of the Project, **(2)** identify the areas requiring special attention ("Coordination Areas"), and **(3)** determine the need for a coordination drawing for any Coordination Area. The Contractor shall prepare the Coordination Drawings with Computer-Aided Design ("CAD") or Building Information Modeling ("BIM") software acceptable to the Contracting Authority. The Coordination Drawings shall show the sheet metal work with plan and elevation dimensions, which specifically locate all HVAC ductwork, HVAC equipment, and HVAC piping for each Coordination Area based upon the information, discussion, and resulting consensus of the Coordination Participants during the coordination meetings.

**6.7.1.1** After the Contractor completes the Coordination Drawings, the Contractor shall forward a copy of the Coordination Drawings to the A/E, Contracting Authority, and Owner.

**6.7.1.2** The A/E shall review the Coordination Drawings to determine whether the Coordination Participants achieved the goals listed in **Section 6.7.1**. The A/E shall report any concerns, in writing, to the Coordination Participants within 14 days after receiving the drawings.

**6.7.1.3** If the Project is administered using the State's web-based project management software, the Contractor shall submit the Coordination Drawings to the A/E, and CxA if applicable, through the "Submittals" business process.

## 6.8 Additional Tests and Inspections

**6.8.1** If the A/E or the Contracting Authority determines that any portion of the Work requires special inspection, testing, or approval not otherwise required under the Contract Documents, the A/E shall order such inspection, testing, or approval.

**6.8.1.1** If the special inspection, testing, or approval reveals Defective Work, the Contractor shall pay all associated costs and will not be entitled to any related adjustment of the Contract Times. Those costs may include, but are not limited to:

- .1 the cost of the special inspection, testing, or approval;
- .2 the cost of additional special inspections, testing, or approvals to evaluate remedial Work;
- .3 the cost of correcting the Defective Work; and
- .4 all related Owner-incurred fees and charges of contractors, engineers, architects, attorneys, and other professionals.

**6.8.1.2** The Contracting Authority may deduct the costs described under **Section 6.8.1.1** from payments then or thereafter due the Contractor. If payments then or thereafter due the Contractor are not sufficient to cover those amounts, the Contractor shall immediately pay the amount of the insufficiency to the Owner.

**6.8.1.3** If the special inspection, testing, or approval reveals that the Work complies with the Contract Documents, and the Contractor believes that it is entitled to an adjustment of the Contract Sum or Contract Times, or both, on account of the special inspection, testing, or approval, the Contractor may request a Change Order by giving written notice under **Section 7.3.2** within 7 days after the special inspection, testing, or approval.

**6.8.2** If the Contractor is aware of a need for inspection, testing, or approval, or of a need to have any inspection, testing, or approval completed by a particular time to avoid delay, then the Contractor shall timely communicate such information to the A/E and Contracting Authority.

**6.8.3** Except as described under **Section 6.8.1**, the Owner shall pay for any inspection, testing, or approval that did not become a requirement until after it awarded the Contract.

**6.8.4** The Contractor shall coordinate with and give the A/E, Contracting Authority, and Owner reasonable notice of the anticipated dates of all inspections, testing, or approvals.

**6.8.5** Within 5 days after completion of an inspection, testing, or approval, the A/E shall provide an original report/certificate of the inspection, testing, or approval to the Contractor and Contracting Authority with a recommendation for or against acceptance of the results therein.

## **6.9 Review of Contract Documents and Field Conditions**

**6.9.1** Before starting each portion of the Work, the Contractor shall carefully study and compare the various Contract Documents relative to that portion of the Work, shall take field measurements of any existing conditions related to that portion of the Work, and shall observe any conditions at the Site affecting it.

**6.9.2** If the Contractor finds any perceived ambiguity, conflict, error, omission, or discrepancy on or between any of the Contract Documents, or between any of the Contract Documents and any Applicable Law, the Contractor, before proceeding with the Work, shall promptly submit a Request for Interpretation (“RFI”) to the A/E for an interpretation or clarification.

**6.9.2.1** Before submitting any RFI to the A/E, the Contractor shall carefully review the Contract Documents to ensure that the Contract Documents do not answer the RFI.

**6.9.2.2** The A/E shall respond to an RFI within 3 days of receiving the RFI.

**6.9.2.3** Any interpretation or clarification of the Contract Documents made by any Person other than the A/E, or in any manner other than writing, shall not be binding and the Contractor shall not rely upon it.

**6.9.2.4** If the Project is administered using the State’s web-based project management software, the Contractor shall submit RFIs to the A/E through the “Requests for Interpretation” business process.

**6.9.3** If the Contractor believes that it is entitled to an adjustment of the Contract Sum or Contract Times, or both, on account of clarifications or instructions issued by the A/E in response to a RFI, the Contractor may request a Change Order by giving written notice under **Section 7.3.2** within 7 days of receiving the A/E’s RFI response.

**6.9.4** If the Contractor does not notify the A/E per **Section 6.9.3**, the Contractor will have accepted the RFI response without an adjustment to the Contract Sum or Contract Times.

## **6.10 Protection of the Project**

**6.10.1** The Contractor shall protect the Work from weather and maintain the Work and all materials, apparatus, and fixtures free from injury or damage until Substantial Completion of the Work.

**6.10.1.1** The Contractor shall at all times cover or protect the Work.

**6.10.1.2** The Contractor, at its expense, shall remove, and replace with new, any Work damaged as a result of the Contractor's failure to provide coverage or protection.

**6.10.1.3** The Contractor, at its expense, shall repair or replace any adjacent property, including, but not limited to, roads, walks, shrubbery, plants, trees, or turf, damaged during performance of the Work.

**6.10.1.4** After the date of Substantial Completion of the Work, the Owner is responsible for protecting and maintaining all materials, apparatus, and fixtures for the occupied portion of the Project free from injury or damage.

**6.10.2** The Contractor shall protect the Project and existing or adjacent property from damage at all times and shall erect and maintain necessary barriers, furnish and keep lighted necessary danger signals at night, and take reasonable precautions to prevent injury or damage to individuals or property.

**6.10.3** The Contractor shall not load, or permit any part of the Project to be loaded, in any manner that endangers the Project, or any portion thereof. The Contractor shall not subject any part of the Project or existing or adjacent property to stress or pressure that endangers the Project or property.

**6.10.4** The Contractor shall provide all temporary bracing, shoring, and other structural support required for safety of the Project and proper execution of the Work.

**6.10.5** Vibration, Noise, and Dust Control.

**6.10.5.1** The Contractor shall provide controls/barriers for vibrations, noise, and dust control in occupied buildings as required by the construction operations.

**6.10.5.2** The Contractor will not be permitted to exhaust or release unfiltered air, dust, construction debris, or other undesirable products into the exterior atmosphere or into occupied areas of the building outside the Site. The Project Manager may limit or stop the Work if the Contractor does not maintain proper air-quality standards.

**6.10.5.3** In certain occupied buildings, tasks might be of such a nature that noise and vibration cannot be tolerated. In such spaces, Work shall be scheduled for other than normal working hours. The Contractor is cautioned that weekend or overtime work, if required, shall be performed at no additional cost. Permission to work other than standard hours shall be received from the Contracting Authority prior to the occurrence. Weekend and overtime Work shall be reflected in the Construction Progress Schedule.

**6.10.5.4** The Contractor is responsible for vibration control and control of transmission of noise arising from the Work. Principal considerations that shall be given to noise and vibration control are:

- .1 Noise control in compliance with Occupational Safety and Health Administration ("OSHA") requirements for the health and safety of building occupants; control shall be for all areas of the facility, including equipment rooms, boiler rooms, and fan rooms.
- .2 Vibration control to limit sound produced by construction equipment, and for protection of the equipment existing in a building and the building structure.
- .3 Vibration control to provide for maximum usefulness of the facility by keeping levels of vibration within ranges conducive to study and work or other uses for which the facility is designed.

## **6.11 Materials and Equipment**

**6.11.1** The Contractor shall provide new materials and equipment of the quality specified in the Contract Documents.

**6.11.2** The Contractor shall bring to or store at the Site only the materials and equipment required in the Work. If possible, materials and equipment should be installed in their final positions when brought to the Site.

**6.11.2.1** The Contractor shall properly store and protect all materials and equipment it provides to the Project.

**6.11.2.2** The Contractor shall timely remove from the Site any materials or equipment no longer required for the Work.

**6.11.3** The Contractor shall not allow materials or equipment to damage the Project or adjacent property, nor to endanger any individual at or near the Site.

**6.11.4** If the Contractor provides an Acceptable Component, the Contractor shall be solely responsible for the costs of coordination and modification required.

**6.11.5** If the Contractor provides approved Substitutions that require changes to the Contract Documents, the Contractor shall be solely responsible for the additional costs incurred as a result, including, but not limited to, changes to the design by the A/E.

**6.11.6** The A/E shall consider Requests for Substitutions after the bid opening only when the Contractor can conclusively demonstrate to the A/E the following conditions:

**6.11.6.1** the specified Basis of Design Components, Acceptable Components, or previously-approved Substitutions, through no fault of the Contractor or a Subcontractor, are not available; or

**6.11.6.2** the specified Basis of Design Components, Acceptable Components, or previously-approved Substitutions will not perform as designed or intended.

**6.11.7** The Contractor's incorporation of unapproved Substitutions in the Work shall constitute Defective Work.

## **6.12 Labor**

**6.12.1** The Contractor shall maintain a sufficient workforce and enforce good discipline and order among its employees and the employees of its Subcontractors. The Contractor shall not permit employment of individuals not skilled in tasks assigned to them.

**6.12.2** The Contractor shall dismiss from the Project any individual employed by the Contractor, or a Subcontractor, who the Contracting Authority finds, in its sole discretion, to be incompetent, guilty of misconduct, or detrimental to the Project.

**6.12.3** The Contractor shall employ all legal efforts to minimize the likelihood or effect of any strike, Work stoppage, or other labor disturbance. Informational pickets shall not justify any Work stoppage.

## **6.13 Safety Precautions**

**6.13.1** The Contractor shall take reasonable precautions to ensure the safety of individuals on the Project.

**6.13.1.1** The Contractor is responsible for designing and implementing its own safety program, including compliance with OSHA regulations. The Contractor's safety plans, such as fall protection, hazards, communications, competent person, etc., shall meet or exceed the Owner's safety plan (if any).

**6.13.2** The Contractor shall pay any fine or cost incurred because of the Contractor's violation, or alleged violation, of Applicable Law.

**6.13.3** Before starting any Work, the Contractor shall submit to the Contracting Authority a copy of the Contractor's site-specific safety plan and safety manuals.

**6.13.4** The Contractor shall not introduce Hazardous Materials to the Project or burn any fires on the Site.

**6.13.4.1** The Contractor shall notify the Project Manager 24 hours before the start of non-routine or non-recurring hot-work. Use of sources of fire, flame or sparks and flammable materials shall be kept to an absolute minimum. At the beginning of the Project, the Contractor shall inform the Project Manager of its intent to use blowtorches, welding apparatus or similar exposed flame and sparking devices. Similar notice shall be given in regard to the use of flammable liquids, adhesives, and cleaners.

**6.13.4.2** The Contractor shall furnish an appropriate number of fire extinguishers (minimum of 1), which shall be within the immediate areas where work is being done at all times. The extinguisher shall be adequate and suitable for the class of fire likely to be caused by the Contractor's operations.

**6.13.5** Work Stoppage Due to Hazardous Materials.

**6.13.5.1** If the Contractor encounters material the Contractor reasonably believes to be, or contain, a Hazardous Material that has not been rendered harmless, the Contractor shall immediately stop Work in the affected area and verbally report the condition to the Contracting Authority and A/E, and within 1 business day deliver written notice of the condition to the Contracting Authority and A/E.

**6.13.5.2** The Contracting Authority will promptly determine the necessity of the Owner retaining a qualified environmental consultant to evaluate the suspected Hazardous Material and to issue a related written report. Where appropriate, the Owner will engage a licensed abatement contractor to remove the material or render it harmless as directed.

**6.13.5.3** The Contractor shall resume Work in the affected area upon written notice from the A/E that **(1)** the suspect material was evaluated and found not to be or contain a Hazardous Material, or **(2)** the suspect material has been removed or rendered harmless.

**6.13.5.4** If the Contractor knowingly or negligently proceeds with the Work in an area where a Hazardous Material exists and has not been rendered harmless, the Contractor shall be solely responsible for all related claims, damages,

losses, and expenses, including, but not limited to, attorneys' fees, arising out of or resulting from performing the Work in the affected area.

**6.13.5.5** The term "rendered harmless" means that the level of exposure is less than any applicable exposure standards set forth in Applicable Law.

**6.13.6** Safety Data Sheets.

**6.13.6.1** The Contractor shall identify any material it uses at the Site with a Safety Data Sheet ("SDS") meeting the requirements of OSHA's Hazard Communication Standard (formerly known as a Material Safety Data Sheet).

**6.13.6.2** The Contractor shall maintain a notebook containing all of its applicable SDSs. This notebook shall be kept at the Site for the duration of the Project.

**6.14 Construction Facilities, Utilities, and Equipment**

**6.14.1** Facilities.

**6.14.1.1** The Contractor shall provide and maintain in a clean condition suitable temporary facilities, equipment, services, and enclosed storage for its use at the Site.

**6.14.1.2** The Contractor shall provide and maintain in a clean condition:

- .1 suitable facilities, equipment, and services for use by the A/E and Contracting Authority;
- .2 adequate space, equipment, and furnishings to conduct progress meetings, and store approved documents and permits; and
- .3 adequate sanitary facilities for use by all Persons at the Site.

**6.14.2** Environmental Controls.

**6.14.2.1** The Contractor shall protect its Work and materials from weather and damage from heat, cold, and humidity.

**6.14.2.2** Until the permanent HVAC system is complete and available for use:

- .1 the Contractor shall make arrangements and pay for installation and maintenance of temporary heating and ventilating systems; and
- .2 the Contractor shall pay the costs incurred in operating the temporary heating and ventilating systems.

**6.14.2.3** When the permanent HVAC system is complete and available for use:

- .1 The Contractor shall start up and maintain operation of the permanent HVAC system, including filters, and promptly remove temporary heating and ventilating systems.
- .2 If the Project consists entirely of new construction, the Contractor shall pay the costs of energy consumed in operating the permanent HVAC system until Substantial Completion.
- .3 If the Project is a renovation of an existing building or structure, addition(s) to an existing building or structure, or any combination of new construction and renovation work that does not allow separate metering of utilities, the Owner shall pay the costs of energy consumed in operating the permanent HVAC system.

**6.14.2.4** From the date of Substantial Completion, the Owner shall pay the cost of operating the permanent HVAC system for the occupied portion of the Project.

**6.14.2.5** If the permanent HVAC system is used during construction, the Contractor shall furnish an extended warranty and service contract in effect until the expiration of the Correction Period.

**6.14.3** Water and Drainage.

**6.14.3.1** The Contractor shall provide water necessary for the Work until the permanent plumbing system is available for use.

**6.14.3.2** The Contractor shall provide temporary drainage and dewatering necessary for the Work and shall employ pumps, trenches, drains, sumps, and other necessary elements required to provide satisfactory working conditions for the protection, execution, and completion of the Project.

**6.14.3.3** The Contractor shall make arrangements and pay for installation and maintenance of temporary plumbing systems until the permanent plumbing system is available for use.

**6.14.3.4** When the permanent plumbing system is complete and available for use:

- .1 The Contractor shall start up and maintain operation of the permanent plumbing systems, and make arrangements and pay for removal of temporary plumbing systems.

- .2** If the Project consists entirely of new construction, the Contractor shall pay the costs of water consumed and sewerage charges until Substantial Completion.
- .3** If the Project is a renovation of an existing building or structure, addition(s) to an existing building or structure, or any combination of new construction and renovation work that does not allow separate metering of utilities, the Owner shall pay the costs of water consumed and sewerage charges.

**6.14.3.5** From the date of Substantial Completion, the Owner shall pay the costs of water consumed and sewerage charges for the occupied portion of the Project.

**6.14.3.6** If the permanent plumbing system is used during construction, the Contractor shall furnish an extended warranty and service contract in effect until the expiration of the Correction Period.

**6.14.4** Electric Service.

**6.14.4.1** The Contractor shall provide temporary light and power; pay the charges for temporary electric service installation, and removal if required.

**6.14.4.2** If the Project consists entirely of new construction, the Contractor shall pay the cost of energy consumed until Substantial Completion.

**6.14.4.3** If the Project is a renovation of an existing building or structure, addition(s) to an existing building or structure, or any combination of new construction and renovation work that does not allow separate metering of utilities, the Owner shall pay the cost of energy consumed.

**6.14.4.4** From the date of Substantial Completion, the Owner shall pay the cost of energy consumed for the occupied portions of the Project.

**6.14.4.5** If the permanent electrical system is used during construction, the Contractor shall furnish an extended warranty and service contract in effect until the expiration of the Correction Period.

**6.14.5** Hoisting Facilities.

**6.14.5.1** The Contractor shall erect and maintain any hoisting equipment required for its Work.

**6.14.5.2** If the electric service requirements of hoisting facilities differ from that available at the Site, the Contractor shall provide and pay for all necessary connections.

**6.14.5.3** If a permanent elevator is identified in the Contract Documents to be used for hoisting materials or personnel during construction, the Contractor shall furnish an extended warranty and service contract in effect until the expiration of the Correction Period.

**6.15** Progress Cleaning

**6.15.1** The Contractor shall remove all waste materials, rubbish, and mud attributable to the Work to an appropriate disposal location at, or near, the Site.

**6.15.2** The Contractor shall perform weekly broom cleaning of hard flooring surfaces in the area of the Work.

**6.15.3** The Contractor shall remove, once each working day or as appropriate for the Project, all waste materials and rubbish from the disposal location at, or near, the Site.

**6.15.4** The Contractor shall remove, as appropriate for the Project or as the A/E or Owner directs, any waste materials or rubbish from areas adjacent to the Project.

**6.15.4.1** The Contractor shall dispose of waste materials, rubbish, and construction debris in a lawful manner in approved recycling facilities or landfills.

**6.15.5** If the Contractor fails to clean up during the progress of the Work, the Contracting Authority may clean up on behalf of the Contractor and at the Contractor's expense. If the Contractor fails to maintain the areas adjacent to the Project clean and free of waste materials and rubbish, the Contracting Authority may also direct the local jurisdiction responsible for the area to have the area cleaned to its satisfaction at the Contractor's expense.

**6.15.5.1** The Contracting Authority may deduct the cleaning costs from payments then or thereafter due the Contractor. If payments then or thereafter due the Contractor are not sufficient to cover those amounts, the Contractor shall immediately pay the amount of the insufficiency to the Owner.

**6.15.6** The Contractor shall remove excavated material and spoil to a suitable off-site location approved by the Contracting Authority.

**6.15.6.1** If the Owner designates a location on its property for disposal or storage of clean topsoil and/or subsoil in the Contract Documents, the Contractor shall remove such materials to the designated location.

## 6.16 Use of Premises

**6.16.1** The Contractor shall use corridors, stairs, and elevators as designated by the Contracting Authority. The Contractor shall exercise extreme care to not exceed the carrying capacity of elevators or damage the cab interior in any way.

**6.16.2** Loitering or wandering through interior of buildings or exterior grounds outside the limits of the Work will not be permitted.

**6.16.3** The Contractor shall confine its apparatus, materials, and the operations of its workers to the limits indicated by law, ordinances, permits and the directions of the A/E or Project Manager.

**6.16.4** No signs or advertising of any kind will be permitted on or about the Site, except those appearing on trucks and trailers.

### **6.16.5** Site Logistics Plan.

**6.16.5.1** The Contractor shall prepare a plan of the Site indicating how the Contractor intends to use the Site. The plan should illustrate, as an example, areas to be used for lay down of material and equipment; office and storage trailer locations; vehicular access gates with ingress and egress routes; locations of wheel wash and concrete truck wash out activities; and offloading and hoisting locations.

### **6.16.6** Smoking and Tobacco Products.

**6.16.6.1** All State buildings are smoke free. Smoking will not be permitted in any indoor area. The ban on tobacco products will be observed in all indoor and outdoor areas and parking areas on all State-owned and leased property. The Contractor shall enforce these restrictions on any individual employed by the Contractor, or a Subcontractor.

## 6.17 Interruption of Existing Services

**6.17.1** Whenever it becomes necessary to interrupt existing services in use by the Owner or its tenants, including but not limited to sewer, water, gas, and steam lines, electric, telephone, and cable service, the Contractor shall continue the associated Work on a non-stop 24-hour per day basis until that Work is completed and the service restored, or at an alternate time required by the Contracting Authority.

**6.17.2** Before beginning that Work, the Contractor shall apply in writing to, and receive approval in writing from, the Owner, through the A/E, to establish a time when interruption of the service will cause a minimum of interference with the activities of the Owner and its tenants.

## 6.18 Explosives and Blasting

**6.18.1** The Contractor shall not conduct blasting on, or bring explosives to, the Site without the prior written approval of the Contracting Authority, Owner, and other authorities with jurisdiction.

**6.18.2** The Contractor shall perform all blasting, storing, and handling of explosives as required under Applicable Law.

**6.18.2.1** The Contractor shall carry appropriate liability insurance coverage, as required by the Contract Documents, for its blasting and explosives storage and handling operations. Immediately upon request, the Contractor shall deliver evidence of that insurance to the Contracting Authority.

## 6.19 Building Commissioning

**6.19.1** If the Project scope includes building commissioning, the Contractor shall participate in the Commissioning Process, as prescribed in the Contract Documents.

**6.19.2** The Contractor shall permit the A/E, or a third-party Commissioning Agent (“CxA”) if applicable, access to commission performance based equipment, fixtures, and/or systems (e.g., HVAC, fire protection, smoke evacuation, fume hoods, emergency power, etc.), prior to Substantial Completion.

**6.19.3** The A/E, or CxA if applicable, shall promptly notify, in writing, the Contractor of any deficiency identified during the Commissioning Process.

**6.19.4** To facilitate the Commissioning Process, the Contractor shall submit 4 sets of Operation and Maintenance Manuals for dynamic and engineered systems to the A/E, and CxA if applicable, for approval. This submission shall occur within 30 days following approval of all related Contractor submittals required by the Contract Documents.

## 6.20 Action Submittals

**6.20.1 Submittal Description.** Shop Drawings, Product Data, Samples, and other submittals for the A/E's review and action shall be provided by the Contractor for any item required by the Contract Documents but not fully described in the Contract Documents, unless waived by the A/E, and include, but are not limited to:

- 6.20.1.1** construction of the various parts, method of joinery, type of materials, grade, quality and thickness of materials, alloy of materials, profiles of all sections, reinforcement, method of hanging doors or installing windows, anchorage, and type and grade of finish;
- 6.20.1.2** capacities, types of materials and performance charts that are pertinent to the materials, and performance charts that are pertinent to the equipment item; and
- 6.20.1.3** wiring diagrams, control diagrams, schematic diagrams, working and erection dimensions, arrangement and specifications.

**6.20.2 Form of Submittals.** The Contractor shall provide a transmittal letter, review and stamp its approval, and transmit the submittals to the A/E in accordance with the submittal schedule established by the A/E and Contractor.

**6.20.2.1** The Contractor shall submit a minimum of 1 reproducible and 3 copies of Shop Drawings, and a minimum of 4 copies of any other submittal, except when using the State's web-based project management software under **Section 6.20.2.4**.

**6.20.2.2** The data shown on the Shop Drawings shall be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to communicate to the A/E the materials and equipment that the Contractor proposes to provide.

**6.20.2.3** Each Sample shall be identified clearly as to materials, supplier, pertinent data as catalog numbers, the intended use, and other uses as the A/E may require enabling the A/E to review the submittal.

**6.20.2.4** If the Project is administered using the State's web-based project management software, the Contractor shall submit electronic files of its submittals for review, using the "Submittals" business process.

**6.20.3 Variation from Contract Documents.** If the submittals show variations from the requirements of the Contract Documents, the Contractor shall specifically and clearly identify the variations in its letter of transmittal.

**6.20.3.1** Variations that may affect the construction quality, cost or timeline shall be submitted by the A/E to the Contracting Authority for review, and if approved, shall be incorporated into the Work by Change Order.

**6.20.3.2** The Contractor shall not be relieved of responsibility for deviations from the Contract Documents by the A/E's approval of submittals.

**6.20.3.3** Submittals are not Contract Documents. In the event of conflicts between submittals and the Contract Documents, the Contract Documents take precedence and govern the Work.

**6.20.4 Contractor's Submittal Review.** The Contractor shall review and stamp "approved" all submittals before forwarding them to the A/E. If it is apparent to the A/E that the Contractor has not reviewed the submittals, or has conducted an incomplete review, the A/E may reject the submittals.

**6.20.4.1** The Contractor shall field verify conditions as necessary and make corrections of dimensions, locations of various items, encroachments of work of Separate Contractors, or variations from the requirements of the Contract Documents.

**6.20.4.2** If required by the Contract Documents or Applicable Law, the Contractor shall have Shop Drawings or other submittals prepared by Persons possessing expertise and experience in an appropriate trade or profession or by a registered architect, professional engineer, or other professional.

**6.20.4.3** By approving and submitting submittals, the Contractor represents that the Contractor has determined and verified materials, field measurements, and field construction criteria related to the associated Work, or shall do so, and has checked and coordinated the information contained within the submittals with the requirements of the Work and of the Contract Documents.

**6.20.5 A/E's Submittal Review.** The A/E shall review submittals for conformity with design intent within 14 days of receiving them or in accordance with the approved submittal schedule, or other period as mutually agreed by the A/E and Contractor. The A/E's review of submittals is to determine if the items covered by the submittals will, after installation and incorporation into the Work, conform to the Contract Documents and be compatible with the design concept of the Project as a functioning whole.

**6.20.5.1** The Contractor shall make corrections required by the A/E and resubmit the required number of corrected copies of submittals until approved, which resubmission shall be acted upon by the A/E within 14 days of receiving them, or other period mutually agreed by the A/E and Contractor.

**6.20.5.2** When resubmitting corrected submittals, the Contractor shall direct the A/E's attention to revisions made by noting revisions on the resubmittal.

**6.20.5.3** The Contractor shall pay all reasonable costs of the A/E, Owner, and Contracting Authority for attendant delay, interference, hindrance or disruption of the Project due to excessive resubmittals without fault of the A/E, the Owner, or Contracting Authority. Resubmittals in excess of 2 without fault of the A/E, Owner, or Contracting Authority may be determined excessive by the Contracting Authority.

**6.20.5.4** The A/E may hold Samples and other submittals used to coordinate finishes, colors, patterns, textures, or other characteristics until submittals for adjacent materials are available. The A/E shall issue a written notice to the Contractor stating that the submittal is being held, within 7 days of receiving it.

**6.20.5.5** If coordinating submittals are not received within the period required for action on previously received submittals that are held in accordance with **Section 6.20.5.4**, review of the previously received submittals may be delayed.

**6.20.5.6** The A/E's review shall not extend to means, methods, manners, techniques, sequences, or procedures of construction, or to safety precautions or incident programs.

**6.20.5.7** The review and approval of a separate item shall not indicate approval of the assembly in which the item functions.

**6.20.6** Risk of Nonpayment. The Contractor shall not commence any portion of the Work requiring Shop Drawings, Product Data, Samples, or other submittals until the submittal has been approved by the A/E. If the Contractor starts Work before the A/E's final approval of the submittal, the Contractor does so at its own risk that payment may not be approved by the Contracting Authority or made by the Owner for the related Work.

**6.20.7** Equipment Statement. Shop Drawings on equipment shall include the following written statement from the manufacturer of the equipment:

**6.20.7.1** "This equipment submitted for approval shall perform as specified when installed in the arrangement shown on this drawing and in the Contract Documents and in conjunction with all other accessories as flues, breechings, piping, controls, and equipment not furnished by this manufacturer, but required as an accessory or supplement to this equipment, providing that the accessory or supplementary items perform as specified and are installed as shown in the Contract Documents."

.1 The Contractor will be deemed to have included the above statement as required even if the associated Shop Drawing does not actually contain the statement.

**6.20.7.2** This equipment statement shall not be required for Samples, Product Data, and other standard submittals that are not created specifically for this Project.

**6.20.8** Domestic Steel Certifications. The Contractor shall include the following written certifications on the front cover or initial sheet of each structural steel fabrication Shop Drawing, signed and dated prior to fabrication:

**6.20.8.1** "Steel Fabricator Certification: The steel fabricator identified below certifies that for this project all load-bearing structural steel has been fabricated or produced, to the best of its knowledge, only from steel made in the United States in accordance with Ohio Revised Code Section 153.011. Further, the steel fabricator hereby certifies that it has read and understands that a monetary penalty for violations may be imposed under the authority of Ohio Revised Code Section 153.99." This certification shall be followed by the name of the fabrication company, name of the company official signing the certification, the signature of that company official, and the date of that signature.

.1 The Contractor will be deemed to have included the above certification as required even if the associated Shop Drawing does not actually contain the certification.

**6.20.8.2** "Contractor Certification: The contractor identified below certifies that it has required as a condition of purchase, that for this project all load-bearing structural steel shall be fabricated and produced using, to the best of its knowledge, only steel made in the United States in accordance with Ohio Revised Code Section 153.011. Further, the contractor hereby certifies that it has read and understands that a monetary penalty for violations may be imposed under the authority of Ohio Revised Code Section 153.99." This certification shall be followed by the name of the Contractor company, name of the company official signing the certification, the signature of that company official, and the date of that signature.

.1 The Contractor will be deemed to have included the above certification as required even if the associated Shop Drawing does not actually contain the certification.

## 6.21 Warranty

**6.21.1** The Contractor warrants to the Contracting Authority and Owner that all materials and equipment furnished under the Contract shall be new and of good quality unless otherwise required or permitted by the Contract Documents, that the Work shall be free from defects not inherent in the quality required or permitted, and that the Work shall conform to the requirements of the Contract Documents. Work not conforming to those requirements, including Substitutions not properly approved and authorized, may be considered Defective Work. If required by the A/E, the Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment.

**6.21.1.1** If the Contractor or a Subcontractor recommends a particular product, material, system, or item of equipment for incorporation into the Project and the Owner accepts that recommendation, the above warranty includes a warranty from the Contractor to the Owner that the recommended product, material, system, or item of equipment is fit and appropriate for the associated purpose.

## 6.22 Uncovering the Work

**6.22.1** If the Contractor covers Work contrary to the requirements of the Contract Documents or contrary to the written request of the Contracting Authority or A/E, the Contractor shall, if the Contracting Authority or A/E requests in writing, uncover that Work for observation, correct it if not in conformity with the Contract Documents, and recover it at the Contractor's expense without adjustment of the Contract Times.

**6.22.2** If the Contractor covers Work in accordance with the Contract Documents and not contrary to a request from the A/E or Contracting Authority for an opportunity to observe the Work prior to covering, the Contractor shall, if the A/E requests in writing, uncover that Work.

**6.22.2.1** If the uncovered Work is Defective Work, the Contractor shall pay the costs of uncovering, correcting, and recovering the Work and shall not be entitled to an adjustment of the Contract Times.

**6.22.2.2** If the uncovered Work is not Defective Work and the Contractor believes that it is entitled to an adjustment of the Contract Sum or Contract Times, or both, on account of the uncovering and recovering of the Work, the Contractor may request a Change Order by giving written notice under **Section 7.3.2** within 7 days after the Contracting Authority or A/E observes the uncovered Work.

## 6.23 Correction of the Work

### 6.23.1 Before Substantial Completion.

**6.23.1.1** If the Contractor provides Defective Work or fails or neglects to perform the Work in accordance with the Construction Progress Schedule, the Contracting Authority or A/E may issue a written notice to the Contractor and Contractor's Surety directing the Contractor to correct the Defective Work or recover schedule deficiencies. Unless otherwise specified in that written notice, the Contractor shall begin to correct the Defective Work and recover the schedule deficiencies within no more than three days after the Contracting Authority issues the written notice ("72-Hour Notice").

**6.23.1.2** If the Contractor fails to promptly commence and diligently pursue correction of Defective Work or recovery of schedule deficiencies required under **Section 6.23.1.1**, the Owner may correct the Defective Work or take action to recover schedule deficiencies without giving further notice to the Contractor or Contractor's Surety.

### 6.23.2 After Substantial Completion.

**6.23.2.1** In addition to the Contractor's other obligations under the Contract Documents, if any of the Work is found to be Defective Work after Substantial Completion, the Contractor shall correct it promptly after receipt of written notice from the A/E, Contracting Authority, or Owner to do so, unless the Contracting Authority and Owner have previously acknowledged and accepted the Defective Work in writing. The A/E, Contracting Authority, or Owner may send a copy of the written notice to the Contractor's Surety, but are not obligated to do so.

**6.23.2.2** During the Correction Period. If the Contracting Authority or Owner issues a notice under **Section 6.23.2.1** during the Correction Period, the Owner may correct the Defective Work itself without giving further notice to the Contractor or Contractor's Surety if the Contractor fails to (1) notify the Owner in writing of the Contractor's intent to correct the Defective Work within 7 days after the Contracting Authority or Owner issues the notice and (2) thereafter promptly commence and diligently pursue correction of Defective Work.

**6.23.2.3** The Correction Period:

- .1 commences on the date of Substantial Completion of the Work or a designated portion of the Work which the Contracting Authority and Owner have agreed to take Partial Occupancy;

- .2 relates only to the Contractor's specific obligation and opportunity to correct the Work during the Correction Period;
- .3 does not establish a period of limitation with respect to any of the Contractor's other obligations under the Contract Documents;
- .4 has no relationship to the time within which the State or Owner may seek to enforce the Contract;
- .5 does not establish a period of limitation within respect to the commencement of litigation to establish the Contractor's liability under the Contract or otherwise; and
- .6 shall not be extended by corrective Work performed by the Contractor under this **Section 6.23.2**.

**6.23.2.4** After the Correction Period. If the Owner issues notice under **Section 6.23.2.1** after expiration of the Correction Period, the Owner may correct the Defective Work without giving further notice to the Contractor or Contractor's Surety if the Contractor fails to **(1)** notify the Owner in writing of the Contractor's intent to correct the Defective Work within 14 days after the Owner issues the notice and **(2)** thereafter promptly commence and diligently pursue correction of Defective Work.

### **6.23.3** Emergency Correction of Defective Work.

**6.23.3.1** Notwithstanding any other provision of the Contract to the contrary, if in the Contracting Authority or Owner's opinion the Defective Work presents a threat of imminent harm or danger to people, property, or the environment, the Contracting Authority or Owner may order the Contractor to immediately correct Defective Work or the Owner may correct the Defective Work itself without any prior notice to the Contractor or Contractor's Surety.

### **6.23.4** Responsibility for Costs of Correction.

**6.23.4.1** The Contractor shall pay all of the costs and damages associated with the correction of Defective Work and the recovery of schedule deficiencies under this **Section 6.23**. Those costs and damages may include, but are not limited to, the related fees and charges of contractors, engineers, architects, attorneys, and other professionals; and the cost of correcting or replacing adjacent work. The Contracting Authority may deduct those costs and damages from payments then or thereafter due the Contractor. If payments then or thereafter due the Contractor are not sufficient to cover those amounts, the Contractor shall immediately pay the amount of the insufficiency to the Owner.

## **6.24 Acceptance of Defective Work**

**6.24.1** The Owner may accept any Defective Work instead of requiring its removal or correction, in which case the Contract Sum must be equitably reduced as described under **Article 7**.

**6.24.1.1** The Owner may only accept Defective Work though a deduct Change Order that makes explicit reference to this **Section 6.24**.

**6.24.2** None of the following will constitute **(1)** acceptance of Defective Work, **(2)** a release of the Contractor's obligation to perform the Work in accordance with the Contract, or **(3)** a waiver of any rights set forth in the Contract or otherwise provided by Applicable Law:

- 6.24.2.1** observations or inspections by the Owner, Contracting Authority, or A/E;
- 6.24.2.2** the making of any payment;
- 6.24.2.3** Substantial Completion or the issuance of a Certificate of Substantial Completion;
- 6.24.2.4** Partial Occupancy and the Owner's use or occupancy of the Work or any part of it;
- 6.24.2.5** Contract Completion or the issuance of a partial or final Certificate of Contract Completion;
- 6.24.2.6** any review or approval of a submittal;
- 6.24.2.7** any inspection, test, or approval by other Persons; or
- 6.24.2.8** any correction of Defective Work by the Owner.

## **6.25 Project Document Maintenance and Submittal**

### **6.25.1** During Construction.

**6.25.1.1** The Contractor shall maintain in good order at a secure location on the Site:

- .1 a complete copy of all Contract Documents; Shop Drawings, Product Data, Samples and similar required submittals; manufacturer operating and maintenance instructions; certificates; warranties; RFIs and responses thereto; and other Project-related documents, all marked currently and accurately to record field

changes and selections made during construction and to show actual installation where installation varies from Work as originally shown, including the exact location and depth of underground utility lines; and

- .2 a set of Drawings and Specifications, approved in accordance with **Section 5.2.1.1**, and the records required by **Section 6.2.17**.

**6.25.1.2** Before submitting each Contractor Payment Request, the Contractor shall record all changes on the Contract Documents, neatly in a contrasting color, noting new information not shown on the original Contract Documents. Failure to record all changes may cause payment to be withheld or delayed by the Contracting Authority.

**6.25.1.3** The Contractor shall keep a record of changes made to the Specifications, noting particularly any approved variation from manufacturer's installation instructions and recommendations.

**6.25.1.4** If the Contractor uses Shop Drawings to indicate as-built conditions, the Contractor shall cross-reference the Shop Drawing sheet numbers to the corresponding sheet numbers on the Contract Documents. The Contractor shall note related numbers where applicable.

**6.25.1.5** The Contractor shall at all times permit access to the documents described in this **Section 6.25.1** to authorized representatives of the State, local authorities having jurisdiction, Contracting Authority, Owner, and A/E.

#### **6.25.2** Before Contract Completion.

**6.25.2.1** The Contractor, as a condition precedent to execution of the Certificate of Contract Completion and final payment, shall organize the As-Built Documents into manageable sets, bind the sets with durable paper cover sheets, and deliver the As-Built Documents to the A/E.

**6.25.2.2** The Contractor's As-Built Documents submission shall include, but is not limited to:

- .1 Certificate of Occupancy;
- .2 inspection certificates for pressure piping, elevator, boiler, electrical, plumbing or piping purification, etc.;
- .3 Letter of Approval from the local fire authority or State Fire Marshal for the fire suppression system;
- .4 Operation and Maintenance Manuals, organized into suitable sets of manageable size. Indexed data bound in individual binders, with pocket folders for folded sheet information and appropriate identification marked on the front and the spine of each binder;
- .5 neatly and accurately marked sets of As-Built Documents, and other Contract Documents reflecting the actual construction of the Project;
- .6 detailed Drawings reflecting the exact location of any concealed utilities, mechanical or electrical systems, and components;
- .7 assignment to the Owner of all warranties and guarantees, including the most-recent address and telephone number of any Subcontractors or manufacturers;
- .8 an affidavit to certify that all Subcontractors have been paid in full for all Work performed or materials furnished for the Project;
- .9 final certified payroll reports; and
- .10 an affidavit to certify that the Contractor and each of its Subcontractors, regardless of tier, have complied with all requirements of ORC Chapter 4115.

**6.25.2.3** By submitting the As-Built Documents to the A/E, the Contractor certifies that its As-Built Documents are complete, correct, and accurate.

#### **6.25.3** Record Documents.

**6.25.3.1** The A/E shall revise the original Contract Documents and related electronic files with the information contained on the As-Built Documents. The A/E shall label the revised original Contract Documents and related electronic files as "Record Documents" and reflect the date of the A/E's incorporation of the As-Built Documents.

**6.25.3.2** The Owner may thereafter use the Record Documents for any purpose relating to the Project including, but not limited to, additions to or completion of the Project.

### **6.26 Final Cleaning**

**6.26.1** Before requesting the Substantial Completion inspection of the Work, the Contractor shall clean the Site, remove waste materials and rubbish attributable to the Project, and restore the property to its original condition so that upon Substantial Completion, the premises are ready for occupancy by the Owner.

**6.26.2** If the Contractor performs any Work after final cleaning, the Contractor shall clean the affected area as provided above so that upon Substantial Completion, the premises are ready for occupancy by the Owner.

**6.26.3** Final cleaning shall be done to the reasonable satisfaction of the A/E and Contracting Authority.

## **6.27 Substantial Completion**

### **6.27.1 Contractor's Punch List.**

**6.27.1.1** When the Contractor considers the Work, or a designated portion thereof, Substantially Complete the Contractor shall inspect the Work and prepare a list of Defective Work and incomplete or unacceptable Work ("Contractor's Punch List"). The Contractor shall list all items of Work not in compliance with the Contract Documents, including items the Contractor is requesting to be deferred.

- .1** The Contractor shall proceed to correct all items listed on the Contractor's Punch List and certify that the incomplete items listed on the Contractor's Punch List are to its knowledge an accurate and complete list by signing the Contractor's Punch List.
- .2** The Contractor's failure to include an item on the Contractor's Punch List shall not alter the Contractor's responsibility to complete the Work in accordance with the Contract Documents.
- .3** The Contractor shall submit the signed Contractor's Punch List to the A/E, together with a request for the Substantial Completion inspection of the Work.

**6.27.1.2** If the Project is administered using the State's web-based project management software, the Contractor shall submit the Contractor's Punch List, using the "Punch List" business process.

### **6.27.2 Substantial Completion Inspection.**

**6.27.2.1** Within 3 business days after receipt of the request for the Substantial Completion inspection of the Work, the A/E shall notify the Contractor of acceptance or rejection of the request, stating reasons for any rejection.

- .1** Within 7 days after its acceptance of the Contractor's request, the A/E shall conduct the Substantial Completion inspection to determine whether the Work, or designated portion, is in conformity with the Contract Documents and Substantially Complete. The A/E shall notify the Contractor, Contracting Authority, and Owner of the scheduled time of the inspection.
- .2** If the A/E determines that the Work is Substantially Complete, within 3 business days after the Substantial Completion inspection, the A/E shall prepare a Certificate of Substantial Completion that shall establish the date of Substantial Completion and include a list of Defective, incomplete, or unacceptable Work ("A/E's Punch List"). The A/E's Punch List shall include **(1)** the items on the Contractor's Punch List that are not yet completed or corrected as of the date of the Substantial Completion inspection, and **(2)** comments from the Contracting Authority and Owner.
- .3** The A/E shall submit the Certificate of Substantial Completion to the Contracting Authority, Owner, and Contractor for their written acceptance. Upon their acceptance and consent of the Contractor's Surety, and subject to the Owner's right to withhold payment, the Owner shall release retainage as described under **Section 9.7.2**.
- .4** The A/E's failure to include an item on the A/E's Punch List shall not alter the Contractor's responsibility to complete the Work in accordance with the Contract Documents.
- .5** If the A/E accepts the request and subsequently determines that the Work is not Substantially Complete, the A/E may request compensation for expenses related to excessive Punch List activities. The Contracting Authority may deduct that additional compensation to the A/E from payments then or thereafter due the Contractor. If payments then or thereafter due the Contractor are not sufficient to cover those amounts, the Contractor shall immediately pay the amount of the insufficiency to the Owner.

### **6.27.3 Completion of Punch List Items.**

**6.27.3.1** Within 30 days after the date of Substantial Completion and before the date of Final Contract Completion, the Contractor shall complete all items on the A/E's Punch List. After completing all items on the A/E's Punch List, the Contractor shall provide a written request for Final Inspection of the Work to the A/E.

- .1** If Work on the A/E's Punch List cannot be timely completed, the Contractor shall justify in writing to the reasonable satisfaction of the Contracting Authority and A/E, the reasons the items cannot be completed, and the Contractor may propose, for the Contracting Authority and A/E's approval, a time when the Contractor shall complete those items.
- .2** Within 3 business days after receipt of the request for the Final Inspection of the Work, the A/E shall complete a Final Inspection of the Work for compliance with the Contract Documents.

- 3** If multiple inspections of items on the A/E's Punch List are required due to the Contractor's failure to properly and timely complete them, the Contractor shall pay any additional costs incurred by the A/E, Owner, and Contracting Authority resulting from any attendant delay. The Contracting Authority may deduct those additional costs from payments then or thereafter due the Contractor. If payments then or thereafter due the Contractor are not sufficient to cover those amounts, the Contractor shall immediately pay the amount of the insufficiency to the Owner.

**6.27.3.2** If the Project is administered using the State's web-based project management software, the Contractor shall receive the A/E's Punch List and submit its written request for Final Inspection of the Work, using the "Punch List" business process.

## 6.28 Partial Occupancy

**6.28.1** The Owner may occupy or use a portion of the Project prior to Contract Completion if:

**6.28.1.1** the building authority with jurisdiction over the Project issues a partial certificate of occupancy for the portion of the Project the Owner intends to occupy;

**6.28.1.2** the A/E with the Owner's assistance has provided written notice of the Partial Occupancy to the insurers providing property insurance for the Project; and

**6.28.1.3** the Contracting Authority has received notice of the Partial Occupancy from the A/E and has consented to it.

**6.28.2** Before the Owner commences Partial Occupancy, the Owner, Contracting Authority, A/E, and Contractor shall proceed as described under **Section 6.27** for the area designated for Partial Occupancy.

**6.28.3** The Contractor shall be relieved of the obligation to maintain the area accepted for Partial Occupancy, but shall remain obligated to complete and correct the Work and to carry the insurance required by the Contract Documents during performance of any such Work.

## 6.29 Demonstration and Training, Operating Appurtenances

**6.29.1** The Contractor, as a condition precedent to execution of the Certificate of Contract Completion and final payment, shall perform demonstration and training of the Owner's maintenance personnel as specified in the Contract Documents.

**6.29.2** The Contractor, as a condition precedent to execution of the Certificate of Contract Completion and final payment, shall organize and submit operating appurtenances and loose items related to operation and maintenance of the completed Project to the Owner, including, but not limited to:

**6.29.2.1** keys to door and window hardware, panels, and other devices not directly provided to the Owner from the manufacturer;

**6.29.2.2** operating handles, levers, cranks, specialized wrenches or drivers, remote controls, and similar items; and

**6.29.2.3** extra materials (e.g., attic stock).

## 6.30 Contract Completion

### 6.30.1 Partial Contract Completion.

**6.30.1.1** When items of Work cannot be completed until a subsequent date, the A/E shall prepare a partial Certificate of Contract Completion that shall include a detailed list of the deferred Work and the date(s) by which the Contractor will complete that Work.

**6.30.1.2** The A/E shall submit the partial Certificate of Contract Completion to the Contracting Authority, Owner, and Contractor for their written acceptance. Upon their acceptance of the partial Certificate of Contract Completion and consent of the Contractor's Surety, the Contracting Authority may release payment to the Contractor, as determined in the sole discretion of the Contracting Authority.

### 6.30.2 Final Contract Completion.

**6.30.2.1** When all items on the A/E's Punch List have been completed to the satisfaction of the A/E, all requirements of the Contract Documents have been completed, and the provisions of **Sections 6.25** through **6.29** have been fulfilled, the A/E shall prepare and recommend execution of a final Certificate of Contract Completion.

**6.30.2.2** The date that the Contracting Authority executes the final Certificate of Contract Completion is the date of Contract Completion.

## ARTICLE 7 - MODIFICATIONS

### 7.1 General

#### 7.1.1 Changes in the Work.

**7.1.1.1** The Contracting Authority may order changes in the Work without invalidating the Contract. Subject to the limitations stated in this **Article 7** and elsewhere in the Contract Documents, a change in the Work may be accomplished by a Change Order, Change Directive, or order for a minor change in the Work.

- .1 The Contractor shall proportionately increase the amount of the Bond whenever the Contract Sum is increased.
- .2 If notice of any change affecting the Contract is required by the provision of any Bond, notice is the Contractor's responsibility, and the amount of each applicable Bond shall be adjusted accordingly.

**7.1.1.2** The Contractor shall not proceed with any change in the Work without the Contracting Authority's prior written authorization except as provided under **Sections 1.10** and **7.5**.

**7.1.1.3** Except as provided in **Section 1.10**, the Contractor's failure to obtain prior written authorization for a change in the Work constitutes a waiver by the Contractor of an adjustment to the Contract Sum or Contract Times, or both, for the related Work.

**7.1.1.4** The Contractor shall perform all changes in the Work under the applicable provisions of the Contract Documents, and the Contractor shall proceed promptly with the change unless otherwise provided in the Change Order, Change Directive, or order for a minor change in the Work

#### 7.1.2 Paperwork Consolidation.

**7.1.2.1** Related Modifications, with the same or similar justification (e.g., Owner Request or field resolution), may be consolidated into the same Change Order.

**7.1.2.2** Add and deduct Modifications, with the same or similar justification, may be included on the same Change Order.

**7.1.2.3** Modifications resulting from errors or omissions shall not be combined with other modifications for which the A/E will receive a fee.

#### 7.1.3 Modification Numbering.

**7.1.3.1** The A/E shall assign a number to each Modification, which shall uniquely identify it.

**7.1.3.2** The A/E shall not duplicate or reuse any number throughout the Project or reuse assigned numbers for Proposal Requests that are initiated but cancelled in process.

**7.1.3.3** The number for each Change Order shall be coordinated with any associated Proposal Request or Change Directive.

#### 7.1.4 Modification Log.

**7.1.4.1** The A/E shall create and maintain a Modification Log for the Project, which shall contain the following minimum information:

- .1 number of the Modification;
- .2 a brief description of the Modification;
- .3 cost of the Modification;
- .4 schedule impact of the Modification; and
- .5 dates sent to, and received from, the parties.

#### 7.1.5 Reconciliation of Unit Price Items.

**7.1.5.1** The Contracting Authority may increase, decrease, or delete entirely the scheduled quantities of Work to be performed and materials to be furnished by Change Order.

**7.1.5.2** The A/E shall issue a Change Order to reconcile the difference between the scheduled and actual quantities of Work performed and materials furnished.

**7.1.5.3** If the actual quantity of a Unit Price item differs from the scheduled quantity by 20 percent or more, so that application of the Unit Price to the quantities of Work proposed would create an undue hardship on either the Owner or Contractor, the A/E shall issue a Proposal Request and subsequent Change Order to adjust the Unit Price.

- .1 If a Unit Price is adjusted as described under **Section 7.1.5.3**, the new Unit Price will only apply to the units of Work performed that are **(1)** less than the 20 percent threshold if the Unit Price is changed on

account of an over-estimation of the scheduled quantity of a Unit Price item involved in the Work or **(2)** in excess of the 20 percent threshold if the Unit Price is changed on account of an under-estimation of the scheduled quantity of a Unit Price item involved in the Work.

**7.1.5.4** If the actual quantity of a Unit Price item exceeds the scheduled quantity by 20 percent or more, the Contractor shall immediately notify the A/E, who shall issue a Change Directive and subsequent Change Order to authorize an adjustment in the scheduled quantity.

## 7.2 Change Order Procedure

**7.2.1** A Change Order is a written instrument prepared by the A/E and executed by the Contracting Authority and Contractor, stating their agreement upon all of the following:

**7.2.1.1** a change in the Work;

**7.2.1.2** the amount of the adjustment of the Contract Sum, if any; and

**7.2.1.3** the extent of the adjustment of the Contract Times, if any.

**7.2.2** Except with the Contracting Authority's written consent as explicitly provided under **Section 7.4.8**, the Contractor is not entitled to reserve any rights or take other similar action with respect to a Change Order if the effect or intent of the reservation or action would be to accommodate a further adjustment of the Contract Sum or Contract Times, or both, after the Contractor signs the Change Order. By signing a Change Order, the Contractor irrevocably certifies that the elements of a Change Order described in **Section 7.2.1** are completely satisfied, and waives all rights, if any, to seek further adjustment of the Contract Sum or Contract Times, or both, at a later date with respect to the associated change in the Work including without limitation on account of the "cumulative impact" of the associated change in the Work in combination with one or more other changes in the Work.

**7.2.3** The A/E shall prepare each Change Order form, attach the supporting documentation, and issue the Change Order to the Contractor for signature.

**7.2.4** If the Contractor is in agreement with the Change Order under **Section 7.2.1**, the Contractor shall sign and return the Change Order to the A/E within 3 days after receiving it.

**7.2.4.1** If the Project is administered using the State's web-based project management software, the Contractor shall indicate its agreement with the Change Order using the "Change Order" or "Contract Modifications" business process.

**7.2.5** When the A/E receives the Change Order signed by the Contractor, the A/E will recommend approval by signing the form and transmitting the Change Order and the revised Change Order Log to the Owner.

**7.2.6** When the Owner receives the Change Order, the Owner may sign the form accepting the Change Order, attach certification of funding, and transmit the Change Order to the Contracting Authority; or, if the Owner does not accept the Change Order, the Owner will reject and return it to the A/E.

**7.2.7** When the Contracting Authority receives the Change Order, the Contracting Authority may sign the form approving the Change Order, and transmit the fully executed Change Order to all signers; or, if the Contracting Authority does not accept the Change Order, the Contracting Authority will reject and return it to the A/E.

**7.2.8** When the Change Order is signed by the Contractor, A/E, Owner, and Contracting Authority, the fully executed Change Order modifies the Contract Documents and authorizes and directs the Contractor to proceed, and the Contractor shall promptly proceed with the associated change in the Work.

## 7.3 Initiation of Change Orders

### 7.3.1 Proposal Request.

**7.3.1.1** The A/E shall prepare and issue a Proposal Request to the Contractor to obtain the Contractor's Proposal for the adjustment of the Contract Sum or the Contract Times, or both, associated with a contemplated Modification.

- .1** In any Proposal for an adjustment of the Contract Sum, the Contractor shall specifically identify the items set forth in **Section 7.7**.
- .2** In any Proposal for an adjustment of the Contract Times, the Contractor shall specifically identify the items set forth in **Section 7.8**.
- .3** The Contractor's cost of preparing and providing Proposals is included in the Contract Sum.

**7.3.1.2** The Contractor shall respond with a Proposal to the A/E and Contracting Authority within 14 days after receiving the Proposal Request. The allowable time for the Contractor's response may be extended by written agreement of the Contractor and A/E.

**7.3.1.3** The Contractor shall hold the Proposal valid and open for acceptance for at least 45 days. The acceptance period may be adjusted by mutual consent of the Contractor and Contracting Authority. The time limits described under this **Section 7.3.1.3** apply only to Proposals submitted in response to a Proposal Request.

**7.3.1.4** A Proposal may be accepted by the Contracting Authority only through a Change Order. A Proposal Request does not authorize the Contractor to proceed with a change in the Work.

**7.3.1.5** If the Contractor does not timely submit a Proposal within the time required in **Section 7.3.1.2**, the Contractor waives its right to an adjustment to the Contract Sum or Contract Times, or both, associated with the contemplated change in the Work.

**7.3.1.6** If the Project is administered using the State's web-based project management software, the Contractor shall respond to a Proposal Request issued by the A/E with its Proposal using the "Change Order" or "Contract Modifications" business process.

### **7.3.2** Request for Change Order.

**7.3.2.1** The Contractor may initiate a change in the Work by submitting written notice to the A/E accompanied by a Proposal meeting the requirements of **Section 7.3.1**.

**7.3.2.2** If the Project is administered using the State's web-based project management software, the Contractor shall initiate its Request for Change Order using the "Change Order" or "Contract Modifications" business process with the "Request for Change Order" workflow.

## **7.4** Change Directives

**7.4.1** A Change Directive is a written order prepared by the A/E and executed by the Contracting Authority directing a change in the Work and may, if necessary:

**7.4.1.1** state a proposed basis for adjustment, if any, in the Contract Sum or Contract Times, or both; or

**7.4.1.2** limit the scope of the change in the Work on a time and materials basis, not to exceed a fixed adjustment of the Contract Sum.

**7.4.2** If a change in the Work must start immediately to avoid an imminent impact to the schedule of the Project, the A/E may prepare a Change Directive for the Contracting Authority's and the Owner's signatures pursuant to **Section 7.4.1**, authorizing the Contractor to proceed.

**7.4.3** A Change Directive shall be used to direct a change in the Work in the absence of total agreement on the terms of a Change Order.

**7.4.3.1** For the purposes of clarity, the Contract refers to a Change Directive as if it is only to be used in the absence of total agreement on the terms of a Change Order concerning the associated change of the Work. A Change Directive may also be used in the absence of agreement as to whether the subject of the Change Directive actually constitutes a change in the Work; such as the situation described under **Section 7.5.3**.

**7.4.4** Upon receipt of a Change Directive, the Contractor shall promptly proceed with the change in the Work involved.

**7.4.5** The Contractor may sign the Change Directive to accept the proposed basis for adjustment, if any, of the Contract Sum or Contract Times, or both. Thereafter, the A/E shall prepare and the A/E, Contracting Authority, Owner, and Contractor shall promptly execute an associated Change Order as described under **Section 7.2**.

**7.4.6** Within 14 days after receiving the Change Directive, the Contractor shall respond with a Proposal meeting the requirements of **Section 7.3.1** to the A/E and Contracting Authority for adjustment of the Contract Sum or Contract Times, or both, on account of the change, unless the Change Directive is performed on a time and materials basis under **Section 7.4.1.2**. If the Change Directive is performed on a time and materials basis, the Contractor shall submit its Proposal within 7 days after completing the Work.

**7.4.6.1** The Proposal for the adjustment of the Contract Sum, if any, shall include: **(1)** written documentation as described under **Section 7.7**; and **(2)** a written statement from the Contractor that the proposed adjustment is the entire adjustment in the Contract Sum associated with the change.

**7.4.6.2** The Proposal for the change in the Contract Times, if any, shall include: **(1)** written documentation as described under **Section 7.8**; and **(2)** a written statement from the Contractor that the proposed adjustment is the entire adjustment of the Contract Times associated with the change.

**7.4.7** If the Contractor does not respond to a Change Directive as required under **Section 7.4.5** or **Section 7.4.6**, the Contracting Authority shall determine the adjustments, if any, of the Contract Sum and Contract Times. If the Contractor does not agree with the Contracting Authority's determination, the Contractor shall initiate a Claim under **Article 8** within 10 days of the date that the Contracting Authority issues its determination, and the Contractor's failure to do so shall constitute an irrevocable waiver of the Claim.

**7.4.8** Pending final determination of the total adjustment of the Contract Times on account of a Change Directive, the period of time not in dispute for that change in the Work may be included in the Construction Progress Schedule accompanied by a Change Order indicating the parties' agreement with part or all of the time adjustment.

**7.4.9** If the Contracting Authority, Owner, and Contractor agree on the adjustments of the Contract Sum and Contract Times associated with a Change Directive, the A/E shall prepare an appropriate Change Order within 7 days after receiving the Contractor's Proposal. The A/E, Contracting Authority, Owner, and Contractor shall promptly sign the Change Order as described under **Section 7.2**.

**7.4.10** If the Contracting Authority, Owner, and Contractor do not agree on the adjustments of the Contract Sum and Contract Times associated with a Change Directive within 60 days after the Change Directive is issued, the Contracting Authority shall determine the adjustments, if any, of the Contract Sum and Contract Times. If the Contractor does not agree with the Contracting Authority's determination, the Contractor shall initiate a Claim under **Article 8** within 10 days of the date that the Contracting Authority issues its determination, and the Contractor's failure to do so shall constitute an irrevocable waiver of the Claim.

**7.4.11** If the Project is administered using the State's web-based project management software, the Contractor shall respond to a Change Directive issued by the A/E with its Proposal using the "Change Order" or "Contract Modifications" business process.

## **7.5 Minor Changes in the Work**

**7.5.1** The A/E may order minor changes in the Work not involving adjustment of the Contract Sum or extension of the Contract Times and not inconsistent with the intent of the Contract Documents. Those changes shall be effected by written order issued to the Contractor.

**7.5.2** The Contractor shall promptly carry out each order for a minor change in the Work if the Contractor agrees that the order does not involve adjustment of the Contract Sum or Contract Times, or both.

**7.5.3** If the Contractor reasonably believes that it would be entitled to an adjustment of the Contract Sum or Contract Times, or both, on account of an order for a minor change in the Work, the Contractor, within 3 business days after receiving the order, shall give the Contracting Authority and A/E written notice of the Contractor's position, and not proceed with the subject Work without first receiving a Change Directive or Change Order related to it.

**7.5.4** The Contractor waives its right to an adjustment of the Contract Sum or Contract Times on account of an order for a minor change in the Work by:

**7.5.4.1** starting the Work that is the subject of the order for a minor change in the Work; or

**7.5.4.2** failing to give the notice described under **Section 7.5.3** within 3 business days after receiving the order for a minor change in the Work.

**7.5.5** If the Project is administered using the State's web-based project management software, the order for a minor change in the Work shall be documented through the "Action Items" business process.

## **7.6 Differing Site Conditions**

**7.6.1** If the Contractor encounters a Differing Site Condition, the Contractor shall stop Work on that Differing Site Condition and give immediate written notice of the condition to the A/E and Contracting Authority.

**7.6.1.1** The Contractor's failure to give notice of the Differing Site Condition as required under this **Section 7.6.1** shall constitute an irrevocable waiver of any associated Claim.

**7.6.1.2** The written notice of a Differing Site Condition under this **Section 7.6.1** shall be required before the notice of Claim under **Article 8**.

**7.6.2** Promptly after receiving notice from the Contractor under **Section 7.6.1**, the A/E shall investigate to determine whether the Contractor has encountered a Differing Site Condition. The A/E shall give written notice of its determination to the Contracting Authority and Contractor within 10 days after completing the investigation.

**7.6.2.1** If the A/E determines that the Contractor has encountered a Differing Site Condition and the Contracting Authority agrees with the A/E's determination, the A/E shall process an appropriate Change Order.

**7.6.2.2** If the A/E determines that the Contractor has encountered a Differing Site Condition but the Contracting Authority disagrees with the A/E's determination, the A/E shall process an appropriate Change Directive through which the Contracting Authority may convey its disagreement with the A/E's determination.

**7.6.2.3** If the A/E determines that the Contractor has not encountered a Differing Site Condition and the Contractor does not agree with that determination, the Contractor must initiate a Claim under **Article 8** within 10 days of the date that the A/E issues its determination.

## 7.7 Change Order Cost or Credit Determination

### 7.7.1 General.

**7.7.1.1** The maximum cost or credit resulting from a change in the Work shall be determined as described below.

- .1 Proposals shall include the information required by **Section 7.7.1.4**.
- .2 A Unit Price Proposal shall only be valid when incorporated into the Contract by Change Order.
- .3 The maximum cost or credit includes all compensation for impact costs. Additional costs for impacts shall not be allowed.

**7.7.1.2** The Contractor shall not assign any portion of the Work to another Person whereby the Contractor would benefit directly or indirectly from the double application of charges for overhead or profit.

**7.7.1.3** The Contracting Authority may require notarized invoices for material costs and may audit the records of the Contractor and Subcontractors.

**7.7.1.4** For each change in the Work, the Contractor shall furnish a detailed Proposal itemized on the **Proposal Worksheet Summary Form (Contractor)** published by the Ohio Facilities Construction Commission through which the Contractor shall document the related changes in the Contract Sum as described under **Section 7.7.2**. Any Subcontractor pricing shall be itemized on the appropriate **Proposal Worksheet Summary Form**.

**7.7.1.5** **Section 7.7.2** establishes the exclusive and maximum amount that the Owner shall pay for any Change Order, including, but not limited to, all amounts for interference with, delay, hindrance, disruption, or impact of the Work ("Pricing Criteria"). These Pricing Criteria also govern the value of deduct Change Orders and the Contractor's entitlement to additional compensation or damages through the Claims and dispute resolution processes on account of changes in the Work. In order to expedite the review and approval process, Proposals shall be prepared in the categories and order listed in **Section 7.7.2**.

### 7.7.2 Pricing Criteria.

**7.7.2.1 Contractor Personnel Costs:** The Contractor's on-Site management (including supervision and administrative personnel) not subject to prevailing wage under ORC Chapter 4115. These costs will be calculated on an hourly basis according to the rates acceptable to the Contracting Authority.

- .1 In no event will the Contractor be entitled to an increase in the Contract Sum on account of Contractor Personnel Costs unless the Contractor actually incurs additional Contractor Personnel Costs solely on account of the associated change in the Work.
- .2 Under no conditions will the increase under this **Section 7.7.2.1** exceed those additional Contractor Personnel Costs the Contractor actually incurs.

**7.7.2.2 Labor:** Field labor directly involved in the Work based upon the actual rate of pay to the worker. If the Project is subject to payment of prevailing wage rates, field labor shall be paid according to the relevant classification of labor as established in the applicable prevailing wage determination for the Project locality, as determined by the Ohio Department of Commerce, Wage and Hour Bureau.

- .1 In no event will the Contractor be entitled to an increase in the Contract Sum on account of labor costs unless the Contractor actually incurs additional labor costs solely on account of the associated change in the Work.
- .2 Under no conditions will the increase under this **Section 7.7.2.2** exceed those additional labor costs the Contractor actually incurs.
- .3 The cost for supervision above the level of working forepersons (such as general forepersons, superintendent, project manager, etc.) is included in the adjustment under **Section 7.7.2.1** for the Contractor and under **Section 7.7.2.10** for Subcontractors.

**7.7.2.3 Fringes:** Fringe benefit credit for labor provided under **Section 7.7.2.2** is only allowable for prevailing wage fringe benefits pursuant to ORC Chapter 4115, including, but not limited to, Health and Welfare, vacation,

apprenticeship training, and certain types of pension plans. The parties shall defer to the Ohio Department of Commerce's policy on which benefits are granted fringe benefit credit. Each fringe benefit for which credit is requested shall be calculated on an hourly basis and listed as a separate line item. The Contractor shall submit documentation supporting the calculation of the amounts for each fringe benefit for each worker classification, including labor provided by Subcontractors.

**7.7.2.4 Allowable Payroll Expenses:** Allowable payroll expenses for labor provided under **Section 7.7.2.2** including payroll taxes as well as other benefits that are required by Applicable Law, such as federal and state Unemployment and Workers' Compensation shall each be a separate line item and shall not be credited for compliance with ORC Chapter 4115.

**7.7.2.5 Equipment Rentals:** All charges for certain non-owned heavy or specialized equipment at up to 100 percent of the documented rental cost. No rental charges shall be allowed for hand tools, minor equipment, simple scaffolds, etc. Downtime due to repairs, maintenance and weather delays shall not be allowed. Contractor shall submit copies of actual paid invoices to substantiate rental costs.

**7.7.2.6 Owned Equipment:** All charges for certain heavy or specialized equipment owned by the Contractor or Subcontractor performing the Work at up to 100 percent of the cost listed by the current edition of the Associated Equipment Distributors' *AED Green Book* heavy equipment rental rates. No recovery shall be allowed for hand tools, minor equipment, simple scaffolds, etc. The longest period of time that the equipment is to be required for the Work shall be the basis for the pricing. Downtime due to repairs, maintenance, and weather delays shall not be allowed.

**7.7.2.7 Trucking:** A reasonable delivery charge or per-mile trucking charge for delivery of required materials or equipment. Charges for use of a pick-up truck shall not be allowed.

**7.7.2.8 Materials:** The actual cost (including all discounts, rebates or related credits) of all materials incorporated into the changed Work. Documentation shall show costs, quantities, or Unit Prices of all items, as appropriate.

- .1 The cost or credit for reusable materials (e.g., concrete form lumber, shoring, or temporary enclosures) shall be limited to 33 percent of the material cost for each use.

**7.7.2.9 Contractor's General Conditions Costs:** The Contractor's General Conditions Costs to the extent attributable to an associated change in the Contract Time for achievement of Substantial Completion resulting from the change in the Work.

- .1 In no event shall the Contract Sum adjustment per day of Contract Time adjustment exceed an amount equal to **(1)** the sum of the General Conditions Costs line items in the Contractor's Schedule of Values approved by the Contracting Authority, **(2)** divided by the total number of days of the original Contract Time for achievement of Substantial Completion.
- .2 The Contractor shall **(1)** exclude the Bond premium from the Schedule of Values for the purposes of the calculation under **Section 7.7.2.9.1**, and **(2)** include the actual adjustment of the Bond premium attributable to an associated change in the Contract Sum.
- .3 If the Contractor purchases the builder's risk insurance for the Project, the Contractor shall **(1)** exclude the builder's risk insurance premium from the Schedule of Values for the purposes of the calculation under **Section 7.7.2.9.1**, and **(2)** include the actual adjustment of the builder's risk insurance premium attributable to an associated change in the Contract Sum.

**7.7.2.10 Subcontractor Overhead and Profit:** Adjustment of the Contract Sum on account of a change in Subcontractor-performed Work shall include the Subcontractor's aggregate overhead and profit allowance equal to 15 percent of the sum of the Subcontractor's costs described under **Sections 7.7.2.2** through **7.7.2.8** that are associated with that changed Work.

- .1 The allowance applies to each Subcontractor tier.
- .2 The allowance covers: the costs required to schedule and coordinate the Work, telephone, telephone charges, facsimile, telegrams, postage, photos, photocopying, hand tools, simple scaffolds (one level high), tool breakage, tool repairs, tool replacement, tool blades, tool bits, home office estimating and expediting, home office clerical and accounting support, home office labor (management, supervision, engineering), all other home office expense, legal services, travel, and parking expenses.
- .3 An exception is allowed for shop or engineering labor on items in **Section 7.7.2.10.2**, which shall not be subject to Prevailing Wage rates for steel fabricators, sheet metal fabricators, and sprinkler system fabricators performing work off-site. Recovery for these matters shall be allowed on an hourly basis under items in **Sections 7.7.2.2**, **7.7.2.3**, and **7.7.2.4** of these Pricing Criteria.
- .4 An exception is allowed for field supervision labor on items in **Section 7.7.2.10.2**, for those portions of the Change Order Work that will be performed, or was performed, at times when the superintendent is not

required to be on site under **Section 6.4**, including but not limited to overtime hours due to acceleration and extensions of the Contract Times. Recovery for this matter will be allowed on an hourly basis under items in **Sections 7.7.2.2, 7.7.2.3, and 7.7.2.4** of these Pricing Criteria.

**7.7.2.11 Contractor's Fee:** Adjustment of the Contract Sum on account of a change in the Work shall include an allowance for the Contractor's Fee equal to 10 percent of the sum of the costs described under **Sections 7.7.2.1** through **7.7.2.10** that are associated with that changed Work.

**7.7.2.12 Miscellaneous:** Adjustment of the Contract Sum on account of a change in Work may include the following costs with no allowance for Contractor's Fee under **Section 7.7.2.11** or Subcontractor overhead and profit under **Section 7.7.2.10**.

- .1 The premium portion only for approved overtime (labor and fringes). The straight time portion is included in items in **Sections 7.7.2.2, 7.7.2.3, and 7.7.2.4**.
- .2 State sales tax shall be allowed on items as defined by **Section 12.7**.

**7.7.3** Costs that shall not be reimbursed for Change Order Work include the following:

**7.7.3.1** Voluntary employee deductions including, but not limited to, deductions for charitable donations or U.S. savings bonds.

**7.7.3.2** Employee profit sharing.

## 7.8 Time Extension

**7.8.1** Every adjustment of the Contract Times associated with any change in the Work shall be determined as provided in this **Section 7.8**, which establishes the Contractor's maximum entitlement for any change in the Work, including without limitation all adjustments for interference, delay, hindrance, or disruption of the Work. This **Section 7.8** also governs time adjustments for deduct Change Orders and the Contractor's entitlement to additional time through the claims and dispute resolution processes on account of changes in the Work.

**7.8.2** The Contractor shall substantiate all changes in the Contract Times with:

**7.8.2.1** a written description of the nature of the interference, disruption, hindrance or delay;

**7.8.2.2** identification of Persons and events responsible for the interference, disruption, hindrance or delay;

**7.8.2.3** date, or anticipated date, of commencement of the interference, disruption, hindrance or delay;

**7.8.2.4** identification of activities by schedule activity number and name on the Construction Progress Schedule, which may be affected by the interference, disruption, hindrance or delay, or new activities created by the interference, disruption, hindrance or delay and the relationship with existing activities;

**7.8.2.5** anticipated duration of the interference, disruption, hindrance or delay and of any remobilization period;

**7.8.2.6** specific number of days of extension requested and specific number of days for remobilization requested;

**7.8.2.7** recommended action to avoid or minimize any future interference, disruption, hindrance or delay; and

**7.8.2.8** a detailed written proposal as described under **Section 7.7** for an increase in the Contract Sum which would fully compensate the Contractor for all costs of acceleration of the Work needed to completely overcome the associated delay, if any.

**7.8.3 Critical Path.** Time extensions shall depend upon the extent to which the Work on the critical path of the Construction Progress Schedule is affected, if applicable.

**7.8.3.1** A Change Order granting a time extension may provide that the Contract Times shall be extended for only those specific elements so interfered with, disrupted, hindered, or delayed and related remobilization and that remaining Milestone dates shall not be altered and may further provide for adjustment of Liquidated Damages.

## 7.9 Examination and Audit of Contractor's Records

**7.9.1** The Contracting Authority and Owner may examine all books, records, documents and other data of the Contractor and its Subcontractors related to the bidding, pricing, or performance of the Work for the purpose of evaluating any Contractor Payment Request, Proposal, Modification, or Claim.

**7.9.2** The above referenced materials shall be made available at the office of the Contractor or Subcontractor, as applicable, at all reasonable times for inspection, audit, and reproduction until the expiration of 6 years after the date of Substantial Completion of all Work.

**7.9.2.1** The Contractor shall maintain, and require its Subcontractors to maintain, complete and accurate business records at its principal place of business. If the principal place of business is greater than 50 miles from the Site, the Contractor shall timely make records available, and shall require its Subcontractors to timely make records available, at the office of the Contracting Authority or Owner upon request for the records.

**7.9.3** To the extent that the Contractor or Subcontractor, as applicable, informs the Contracting Authority or Owner in writing that any documents provided to the Contracting Authority or Owner are trade secrets, the Contracting Authority or Owner shall treat these documents, to the extent permitted by law, as trade secrets of the Contractor or Subcontractor, as applicable.

**7.9.3.1** If a dispute arises with any other Person about whether that Person should be given access to the documents, the Contractor or Subcontractor as applicable, shall indemnify the Contracting Authority and Owner against all costs, expenses, and damages, including but not limited to attorneys' fees, incurred or paid by reason of that dispute.

**7.9.4** The right of inspection, audit, and reproduction extends to all documents necessary to permit adequate evaluation of the cost of pricing data submitted along with the computations and projections used therein.

**7.9.5** If the Contract has been terminated, in whole or in part, the records relating to the Work terminated shall be made available to the Contracting Authority or Owner for a period of 6 years from the date of any applicable final settlement or payment, as applicable.

**7.9.6** Records that relate to disputes, litigation, or settlement of Claims arising out of the performance of the Work shall be made available until the dispute, litigation or Claims have been finally decided or settled.

## ARTICLE 8 - DISPUTE RESOLUTION

### 8.1 Initiation of a Claim

**8.1.1** Every Claim shall accrue upon the date of occurrence of the event giving rise to the Claim.

**8.1.2** Except as provided under **Section 1.10**, the Contractor shall initiate every Claim by giving written notice of the Claim to the A/E and Contracting Authority within 10 days after occurrence of the event giving rise to the Claim, with the following exceptions:

**8.1.2.1** The 10-day time limit on initiating a Claim arising from a determination of the Contracting Authority concerning a Change Directive begins to run on the date that the Contracting Authority issues its determination under **Section 7.4.7** or **Section 7.4.10**, as applicable.

**8.1.2.2** The 10-day time limit on initiating a Claim arising from the response of the A/E to a RFI begins to run on the date that the A/E issues the A/E's response to the RFI.

**8.1.2.3** The 10-day time limit on initiating a Claim arising from the A/E's determination concerning a Differing Site Condition begins to run on the date that the A/E issues the A/E's determination under **Section 7.6**.

**8.1.3** The Contractor's written notice of a Claim shall provide the following information to permit timely and appropriate evaluation of the Claim, determination of responsibility, and opportunity for mitigation:

**8.1.3.1** nature and anticipated amount of the impact, including all costs for any interference, disruption, hindrance, or delay, which shall be calculated in accordance with **Section 7.7** and be a fair and reasonably accurate assessment of the damages suffered or anticipated by the Contractor;

**8.1.3.2** identification of the circumstances responsible for causing the impact, including, but not limited to, the date or anticipated date, of the commencement of any interference, disruption, hindrance, or delay;

**8.1.3.3** identification of activities on the Construction Progress Schedule that will be affected by the impact or new activities that may be created and the relationship with existing activities;

**8.1.3.4** anticipated impacts and anticipated duration of any interference, disruption, hindrance, delay, or impact, and any remobilization period; and

**8.1.3.5** recommended action to avoid or minimize any interference, disruption, hindrance, delay, or impact.

**8.1.4** The Contractor's failure to initiate a Claim as and when required under this **Section 8.1** shall constitute the Contractor's irrevocable waiver of the Claim.

**8.1.5** The A/E, in consultation with the Contracting Authority, shall respond to the written notice of the Claim within a reasonable time of receipt, but not to exceed 10 days.

## 8.2 Substantiation of Claims

**8.2.1** Within 30 days after the initiation of a Claim, the Contractor shall submit 4 copies of all information and statements required to substantiate a Claim as provided in this **Article 8** and all other information that the Contractor believes substantiates the Claim. The Contractor shall file the 4 copies by delivery of 1 copy to the A/E, 1 copy to the Owner, and 2 copies to the Contracting Authority.

**8.2.2** The Contractor shall substantiate all of its Claims by providing the following minimum information:

**8.2.2.1** a narrative of the circumstances, which gave rise to the Claim, including without limitation the start date of the event or events and the actual or anticipated finish date;

**8.2.2.2** detailed identification of the Work (e.g., activity codes from the Construction Progress Schedule) affected by the event giving rise to the Claim;

**8.2.2.3** copies of the Contractor's daily log (**Section 6.2.17**) for each day of impact;

**8.2.2.4** copies of relevant correspondence and other information regarding or supporting Contractor entitlement;

**8.2.2.5** copies of the Contractor's most recent income statement, including segregated general and administrative expenses for the most recent reporting period, and for the period of the Contract, if available, and similar information for any Subcontractor claim included; and

**8.2.2.6** the notarized certification described under **Section 8.5.1.1**.

**8.2.3** The Contractor's failure to comply with the requirements of this **Section 8.2** shall constitute an irrevocable waiver of any related Claim.

## 8.3 Substantiation of Claims for Increase of the Contract Sum

**8.3.1** The Contractor shall substantiate each Claim for an increase of the Contract Sum with:

**8.3.1.1** written documentation as described under **Section 7.7** of the actual additional direct and indirect costs to the Contractor due to the event giving rise to the Claim;

**8.3.1.2** a written statement from the Contractor that the increase requested is the entire increase in the Contract Sum associated with the Claim; and

**8.3.1.3** the general substantiation documentation described under **Section 8.2**.

**8.3.2** The Contractor's failure to comply with the requirements of this **Section 8.3** shall constitute an irrevocable waiver of any related Claim.

## 8.4 Substantiation of Claims for Extension of the Contract Times

**8.4.1** The Contractor shall substantiate each Claim for an extension of the Contract Times with:

**8.4.1.1** written documentation as described under **Section 7.8** of the actual delay to the critical path of the Construction Progress Schedule due to the event giving rise to the Claim;

**8.4.1.2** a detailed written Proposal as described under **Section 7.7** for an increase in the Contract Sum that would fully compensate the Contractor for all costs of acceleration of the Work needed to completely overcome the associated delay together with a statement consistent with **Section 8.3.1.2**;

**8.4.1.3** a written statement from the Contractor that the extension requested is the entire extension of the Contract Times associated with the Claim; and

**8.4.1.4** the general substantiating documentation described under **Section 8.2**.

**8.4.2** In addition to the requirements of **Section 8.4.1**, if adverse weather conditions are the basis for a Claim for additional time, the Contractor shall document the Claim with data substantiating that weather conditions were abnormal for the period, could not have been reasonably anticipated, and had an adverse effect on a critical element of the scheduled construction. The support for and evaluation of all adverse weather Claims shall be based upon average weather conditions during the 5 years immediately preceding the dates at issue in the Claim as those weather conditions were recorded at the government-controlled weather-recording facility nearest to the Site.

**8.4.3** The Contractor's failure to comply with the requirements of this **Section 8.4** shall constitute an irrevocable waiver of any related Claim.

**8.5 Certification of the Claim**

**8.5.1** The Contractor shall certify each Claim within 30 days after initiating the Claim under **Section 8.1** or before Contract Completion, whichever is earlier, by providing the notarized certification specified in **Section 8.5.1.1**, signed and dated by the Contractor:

**8.5.1.1** “The undersigned Contractor certifies that the Claim is made in good faith; that the supporting data is accurate and complete to the best of the Contractor’s knowledge and belief; that the amount requested is a fair, reasonable, and necessary adjustment for which the Contractor believes the State is liable; and that the undersigned is duly authorized to certify the Claim on behalf of the Contractor.”

**8.5.2** The date that the Contractor’s certified and fully substantiated Claim is received by the Contracting Authority, or the date that the Contractor is required to certify and fully substantiate a Claim pursuant to **Sections 8.2.1** and **8.5.1**, shall trigger the 120-day period for exhaustion of administrative remedies pursuant to ORC Section 153.16(B).

**8.5.3** The Contractor’s failure to comply with the requirements of this **Section 8.5** shall constitute an irrevocable waiver of any related Claim.

**8.6 Delay and Delay Damage Limitations; Derivative Claims**

**8.6.1** Subject to other provisions of the Contract, the Contractor will be entitled to an extension of the Contract Times on account of delay in the commencement or progress of Work on the critical path of the Construction Progress Schedule caused by acts of Nature or the public enemy, acts of the government not arising from the Contractor’s failure to comply with Applicable Law, fires, floods, epidemics, weather, and labor disputes beyond the Contractor’s control.

**8.6.2** Notwithstanding any other provision of the Contract Documents to the contrary, the Contractor shall not be entitled to an increase in the Contract Sum, or an extension of the Contract Times, or both:

**8.6.2.1** on account of the impact of any normal adverse weather on any of the Work or on account of the impact of any abnormal adverse weather on Work not on the critical path;

**8.6.2.2** to the extent that a delay occurs concurrently with a delay attributable to the Contractor; or

**8.6.2.3** on account of the delay of any Work not on the critical path.

**8.6.3** Notwithstanding any other provision of the Contract Documents to the contrary, the Contractor shall not be entitled to an increase in the Contract Sum or any type of damages on account of a delay in the commencement or progress of Work on the critical path unless **(1)** the delay is caused by the Owner and **(2)** the delay was not authorized or permitted under the Contract.

**8.6.4** Notwithstanding any other provision of the Contract Documents to the contrary, the Contractor shall not be entitled to an increase in the Contract Sum or any type of damages arising from a delay in the commencement or progress of any of the Work caused by the occurrence or non-occurrence of an event beyond the Owner’s control such as acts of Nature or the public enemy, acts of the government, fires, floods, epidemics, labor disputes, unusual delivery delays, weather, or damages caused by the Contractor.

**8.6.5** Derivative Claims. Notwithstanding any other provision of the Contract to the contrary, if the Owner prosecutes a claim, suit, or appeal against a Separate Consultant or Separate Contractor to recover damages the Contractor suffers on account of the acts or neglects of a Separate Consultant or Separate Contractor or a person or entity for whom either is legally responsible, the Owner’s liability to the Contractor shall not exceed the amount the Owner actually recovers from the Separate Consultant or Separate Contractor on account of those damages less the costs the Owner incurs recovering them. The Owner is not obligated to prosecute any such claim, suit, or appeal.

**8.7 Liquidated Damages**

**8.7.1** If the Contractor fails to achieve a Milestone within the associated Contract Time, it would be difficult, if not impossible, to determine the Owner’s resulting damages. Therefore, if the Contractor fails to achieve a Milestone within the associated Contract Time, the Contractor shall (at the Owner’s option) pay to or credit the Owner the Liquidated Damages per day sum determined according to the following schedule for each day that the Contractor fails to achieve a Milestone within the associated Contract Time.

Contract Sum	Liquidated Damages per day
Less than \$1,000,000	\$500
From \$1,000,000.01 to \$2,000,000	\$1,000
From \$2,000,000.01 to \$5,000,000	\$2,000

Contract Sum	Liquidated Damages per day
From \$5,000,000.01 to \$10,000,000	\$5,000
From \$10,000,000.01 to \$20,000,000	\$7,500
From \$20,000,000.01 to \$50,000,000	\$10,000
More than \$50,000,000	\$15,000

**8.7.2** If the Contractor simultaneously fails to achieve two or more Milestones, the Owner shall be entitled to recover the sum of the associated Liquidated Damages per day rates.

**8.7.3** The Liquidated Damages described in this **Section 8.7** are only intended to compensate the Owner for the direct damages it incurs as a result of the Contractor's failure to achieve the Milestones within their associated Contract Times.

**8.7.4** The Liquidated Damages described in this **Section 8.7** are not intended to compensate the Owner for any damages the Owner incurs on account of **(1)** any claims attributable to the Contractor that are brought by others including Separate Consultants and Separate Contractors or **(2)** any failure of the Contractor to timely, properly, and completely perform the Contract other than the failure to achieve the Milestones within their associated Contract Times.

**8.7.5** The parties acknowledge that the above-listed Liquidated Damages per day sums are not penalties, and they each irrevocably waive the right (if any) to challenge the validity and enforceability of those Liquidated Damages per day sums. Notwithstanding any other provision of the Contract Documents to the contrary, if a court determines that the Liquidated Damages per day sums or their application are void and unenforceable, the Owner shall be entitled to recover the actual damages that it incurs on account of the Contractor's failure to achieve one or more of the Milestones within the Contract Times.

**8.7.6** In addition to other rights that the Owner may have relative to the Liquidated Damages, the Contracting Authority may deduct the Liquidated Damages from the Contract Sum as the damages accrue. If payments then or thereafter due the Contractor are not sufficient to cover such amounts, the Contractor shall immediately pay the amount of the insufficiency to the Owner.

## 8.8 Mutual Waiver of Consequential Damages

**8.8.1** Except as provided under **Section 8.8.2**, the Owner and Contractor each waive against the other all Claims for consequential damages that may arise out of or relate to this Contract.

**8.8.1.1** The Owner's waiver includes Claims for loss of use, income, profit, revenue, financing, cost of capital, business and reputation, management and employee productivity, and consequential damages arising from termination of the Contract or related to insolvency.

**8.8.1.2** The Contractor's waiver includes Claims for unabsorbed home-office overhead; any other form of overhead in excess of that specifically provided for under **Section 7.7**; delay damages except as otherwise specifically provided for in **Section 8.6**; increased cost of funds for the Project; lost opportunity to work on other projects; losses of financing, business, and reputation; loss of profit except anticipated profit arising directly from properly performed Work; loss of bonding capacity; and consequential damages arising from termination of the Contract or related to insolvency.

**8.8.2** Notwithstanding **Section 8.8.1**, this **Section 8.8**:

**8.8.2.1** does not apply to any damages that would be covered by insurance provided in connection with the Project if the Contract did not include **Section 8.8.1**;

**8.8.2.2** does not apply to the Contractor's indemnity obligations for third-party claims against the Indemnified Parties even if those claims are for damages that **Section 8.8.1** would otherwise preclude;

**8.8.2.3** does not preclude the Owner's recovery of Liquidated Damages under **Section 8.7**; and

**8.8.2.4** does not apply to Claims for damages arising from the Owner's or the Contractor's gross negligence or willful misconduct.

**8.8.3** This **Section 8.8** shall survive termination of the Contract.

## 8.9 Review of the Claim

**8.9.1** The A/E shall review the Claim and prepare a written analysis of its content, which shall include:

**8.9.1.1** a narrative of the A/E's examination of the facts giving rise to the Claim;

**8.9.1.2** identification of relevant Contract Documents and language;

**8.9.1.3** an analysis of whether the Contractor complied with the requirements of the Contract Documents pertaining to Claim initiation and substantiation including, without limitation, the issues of entitlement to, and calculation of, adjustments of the Contract Sum, Contract Times, or both;

**8.9.1.4** an analysis of claimed additional labor, materials, and equipment for the scope of the Work items described;

**8.9.1.5** an analysis of any time extension for any interference, disruption, hindrance, impact, or delay claimed (to include the calculation of any concurrent delays affecting entitlement);

**8.9.1.6** a concluding opinion regarding Contractor entitlement to, and the appropriateness and reasonableness of all, or any part of, the Claim; and

**8.9.1.7** an appendix containing copies of contemporaneous documentation supporting the concluding opinion.

**8.9.2** The A/E shall submit the written analysis to the Project Manager no more than 30 days after receiving the Contractor's substantiated and certified Claim.

## **8.10 Claim Decision**

**8.10.1** The Project Manager shall examine the Contractor's Claim and A/E's analysis.

**8.10.2** The Project Manager shall approve or deny all, or any part, of the Contractor's Claim and forward a written decision to the Contractor, A/E, Owner, and Contracting Authority within 14 days after receiving the A/E's analysis.

**8.10.2.1** The Project Manager may employ independent resources to assist in its review, or refer evaluation of the Claim to a consultant.

**8.10.3** If the Contractor and Owner agree with the Project Manager's decision, the decision shall be incorporated into a Change Order.

**8.10.4** Any Claim remaining unresolved after completion of the process described under this **Section 8.10** shall be subject to Claim decision review as described under **Section 8.11**.

## **8.11 Claim Decision Review**

**8.11.1** The Contractor may request review of the Project Manager's decision by written notice delivered by certified mail within 14 days of the Project Manager's decision.

**8.11.1.1** If the Project is administered by the Commission, jointly administered by the Commission and a public school district, or locally administered by authority granted to an agency of the state of Ohio by the Commission, the written notice shall be delivered to the Executive Director of the Commission.

**8.11.1.2** If the Project is locally administered by an Institution of Higher Education under ORC Section 3345.50 or ORC Section 3345.51, the written notice shall be delivered to the Institutional Designee who will review the Project Manager's decision instead of the Commission.

**8.11.2** The Commission or Institutional Designee, if applicable, shall schedule and conduct a meeting within 30 days after receiving the Contractor's request for review.

**8.11.2.1** The Commission or Institutional Designee may employ independent resources to assist in the meeting and review.

**8.11.3** The Commission or Institutional Designee, if applicable, shall determine the final disposition of the Contractor's request for review and provide a written decision to the Contractor and Owner within 14 days after the meeting.

**8.11.4** The decision of the Commission or Institutional Designee is the final administrative decision of the Contracting Authority as described under ORC Section 153.12(B).

**8.11.5** If the Contractor and Owner agree with the Commission's or the Institutional Designee's decision, the decision shall be incorporated into a Change Order.

**8.11.6** Any Claim remaining unresolved after completion of the process described under this **Section 8.11** shall be subject to litigation, which may be preceded by Alternative Dispute Resolution ("ADR") as described under **Section 8.13**.

## **8.12 Delegation**

**8.12.1** No provision of this **Article 8** shall prevent the Executive Director from delegating the duties or authorities of the Commission to any other person selected at the Executive Director's sole discretion.

### 8.13 Alternative Dispute Resolution

**8.13.1** The intent of the ADR process is to resolve disputes quickly and equitably in a manner agreed upon by all parties to the dispute.

**8.13.2** The ADR procedure shall be accepted by all of the Project's key stakeholders.

**8.13.3** The accepted ADR methods shall not include binding arbitration; alter any of the requirements for Claim initiation, certification, and substantiation; or alter the administrative process described under this **Article 8**.

**8.13.4** The following forms of non-binding ADR may be considered:

**8.13.4.1 Negotiation:** If negotiation is warranted, the parties to the dispute may agree to a progressive level of negotiators, invested with the authority to agree to a determination of an adjustment in the Contract Sum, Contract Times, or both.

**8.13.4.2 Dispute Review Board:** If a dispute review board is the accepted ADR procedure, or the process to follow when negotiations are unsuccessful, the parties to the dispute shall jointly select 3 neutral third parties to monitor the progress of construction and provide recommended resolutions to disputes that are brought before them. The costs of the dispute review board shall be shared equally among the parties to the dispute.

**8.13.4.3 Mediation:** If mediation is the accepted ADR procedure, or the process to follow when negotiations are unsuccessful, the parties to the dispute shall accept a neutral third party to mediate the dispute. The costs of mediation shall be shared equally among the parties to the dispute.

**8.13.4.4** Another ADR procedure accepted by all of the Project's key stakeholders.

### 8.14 Audit of the Claim

**8.14.1** All Claims shall be subject to audit at any time following filing of the Claim, whether or not the Claim is part of a lawsuit.

**8.14.2** The audit may be performed by employees of the Contracting Authority or by a consultant engaged by the Contracting Authority.

**8.14.3** The audit may begin upon 10-days' notice to the affected Contractor or affected Subcontractor.

**8.14.4** The Contractor shall cooperate with the request.

**8.14.5** Failure of the Contractor or Subcontractor to produce sufficient records to allow the Contracting Authority to audit and verify a Claim shall constitute an irrevocable waiver of the Claim or portion of the Claim that could not be completely audited.

**8.14.6** The Contractor shall make available to the Contracting Authority all Contractor and Subcontractor documents related to the Claim including, without limitation, the following documents:

**8.14.6.1** daily time sheets and superintendent's daily reports;

**8.14.6.2** union agreements, if any, and employer agreements;

**8.14.6.3** insurance, welfare, fringes, and benefits records;

**8.14.6.4** payroll register;

**8.14.6.5** earnings records;

**8.14.6.6** payroll tax returns;

**8.14.6.7** material invoices, purchase orders, Subcontracts, and all material and supply acquisition contracts;

**8.14.6.8** material cost distribution worksheets;

**8.14.6.9** equipment records (list of Contractor equipment, rates, etc.);

**8.14.6.10** vendor rental agreements and Subcontractor invoices;

**8.14.6.11** Subcontractor payment certificates;

**8.14.6.12** canceled checks (payroll and vendors);

**8.14.6.13** job cost report;

**8.14.6.14** job payroll ledger;

**8.14.6.15** general ledger, general journal, (if used) and all subsidiary ledgers and journals together with all supporting documentation pertinent to entries made in these ledgers and journals;

- 8.14.6.16 cash disbursements journal;
- 8.14.6.17 financial statements for all years reflecting operations on the Project;
- 8.14.6.18 income tax returns for all years reflecting operations on the Project;
- 8.14.6.19 depreciation records on all equipment utilized whether the records are maintained by the Contractor, its accountant, or others;
- 8.14.6.20 if a source other than depreciation records is used to develop costs for the Contractor's internal purposes in establishing the actual cost of owning and operating equipment, all other source documents;
- 8.14.6.21 all documents that reflect the Contractor's actual profit and overhead during the years the Project was being performed;
- 8.14.6.22 all documents related to the preparation of the Contractor's Bid, including the final calculations on which the Bid was based, unless the documents are placed in escrow under provisions of the Instructions to Bidders;
- 8.14.6.23 all documents that relate to the Claim together with all documents that support the amount of damages as to the Claim;
- 8.14.6.24 worksheets used to prepare the Claim establishing the cost components for items of the Claim including, but not limited to, labor, fringes, benefits and insurance, materials, equipment, Subcontractors, and all documents that establish the periods of time, individuals involved, the hours and rate of pay for the individuals; and
- 8.14.6.25 all other documents required by the Contracting Authority to reasonably review the Claim.

### 8.15 False Certification of the Claim

8.15.1 If the Contractor falsely certifies all or any part of a Claim, the portion of the Claim falsely certified shall be denied, and may be sufficient cause for the State to debar the Contractor from future State contracting opportunities as permitted by law.

### 8.16 Performance and Payment

8.16.1 The Contractor shall proceed with the Work during any dispute resolution process, unless otherwise agreed by the Contractor and Contracting Authority in writing.

8.16.2 The Contracting Authority shall continue to make payment of any undisputed amounts in accordance with the Contract Documents pending final resolution of a Claim, unless otherwise agreed by the Contractor and Contracting Authority in writing.

## ARTICLE 9 - COMPENSATION AND PAYMENT

### 9.1 Allowances

9.1.1 The Contract Sum includes the Allowances (if any) identified in the Contract.

9.1.2 All Allowances include the cost to the Contractor (less any applicable trade discounts) of materials and equipment required by the Allowances to be delivered at the Site, and all applicable taxes.

9.1.3 The Contractor's Fee and costs for unloading and handling on the Site, labor, installation costs, and other expenses contemplated for the Allowances are not in the stated Allowance amounts but are otherwise included in the Contract Sum.

9.1.4 Before final payment, an appropriate Change Order will be issued to reconcile the Contract Sum so that it reflects actual amounts due to the Contractor on account of Work covered by Allowances.

### 9.2 Unit Prices

9.2.1 Where the Contract provides that all or part of the Work is to be Unit Price Work, initially the Contract Sum will include for all Unit Price Work (1) an amount equal to the sum of the established Unit Prices for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Contract plus (2) the Contractor's Fee on that Unit Price Work.

9.2.2 The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Sum. The Contracting Authority will determine the actual quantities and classifications of Unit Price Work performed by Contractor.

**9.2.3** The Contractor's Fee on account of Unit Price Work is not in the stated Unit Price amounts but are otherwise included in the Contract Sum.

**9.2.4** Before final payment, an appropriate Change Order will be issued as described under **Section 7.1.5** to reconcile the Contract Sum so that it reflects actual amounts due to the Contractor on account of Unit Price Work actually performed.

### 9.3 Schedule of Values

**9.3.1** Within 10 days after receipt of the Notice to Proceed, or other period as mutually agreed by the Contractor and Contracting Authority, the Contractor shall submit to the A/E a Schedule of Values on a form published by the Commission, with separate amounts shown for labor and materials for each branch of Work, following the numbers and titles of the Construction Specifications Institute's *MasterFormat* for individual work results, or *UniFormat* for assemblies in place.

**9.3.1.1** The Contractor shall clearly indicate on the Schedule of Values, the amount(s) allocated, including separate items for Contractor's Fee (overhead and profit), for each EDGE-certified Business used in the performance of the Work. The amount(s) shall indicate labor and materials, as appropriate.

**9.3.2** The grand total shown on the Schedule of Values shall equal the total Contract Sum. The Contracting Authority may use the approved Schedule of Values to determine the cost or credit to the Owner resulting from any change in the Work.

**9.3.2.1** The first items shall be a breakdown of General Conditions Costs.

**9.3.2.2** The amounts for labor and materials shall accurately reflect the cost for each item. Separate items shall not be shown for Contractor's Fee, except when Work is performed or materials are supplied by an EDGE-certified Business, pursuant to **Section 9.3.1.1**. Contractor's Fee shall be included in the totals for labor and materials.

**9.3.2.3** If the material allocation exceeds 55 percent of the Contract Sum, the Contractor shall provide, upon request, sufficient information to support the higher percentage.

**9.3.2.4** Subcontract Work shall show amounts for labor and materials. Fringe benefits shall be shown as a part of labor costs.

**9.3.2.5** When more than one major structure is included in the Work, the Contractor shall subdivide the Schedule of Values accordingly, with cost details for each structure shown separately.

**9.3.2.6** The line items shall be coordinated with line items in the Project Schedule, which may require division of items of Work by area of the Project by floor, phase, or other appropriate area.

**9.3.2.7** Mechanical and electrical Work shall be included in separate line items for all major pieces of equipment, and group smaller equipment items by type.

**9.3.2.8** Line items shall be included for each Allowance, Punch List Work, Project Record Document Submittals, delivery of attic stock, and specified demonstrations and training.

**9.3.3** The A/E may return the Schedule of Values to the Contractor for re-submittal if it does not meet the requirements or contains insufficient items or details of the Work, or approve the Schedule of Values if the A/E determines that it conforms to this **Section 9.3**.

**9.3.4** No payment shall be made until the A/E has approved the Contractor's Schedule of Values.

**9.3.5** If the Project is administered using the State's web-based project management software, the Contractor shall submit its Schedule of Values, using the "Contract Schedule of Values" business process.

### 9.4 Contractor Payment Request

**9.4.1** The Contractor may submit a Contractor Payment Request for Work performed based upon the Schedule of Values to the A/E each month or upon another interval approved by the Contracting Authority. When the rate of Work and amount involved is sufficient that it is considered appropriate by the Contracting Authority, the Contractor may submit Contractor Payment Requests twice a month.

**9.4.1.1** The Contractor shall support each Contractor Payment Request with documentation substantiating the Contractor's right to payment. The Contractor shall supply additional documentation as the A/E may request in connection with each payment to the Contractor.

**9.4.1.2** The Contracting Authority may require proof of the renewal of required insurance as a condition precedent to payment.

**9.4.1.3** The Contractor shall attach certified payroll reports for the relevant period to 1 copy of each Contractor Payment Request, see **Document 00 73 43 - Prevailing Wage Requirements**.

**9.4.1.4** The Contractor may list on the Contractor Payment Request any Change Orders approved and performed prior to submission of the Contractor Payment Request.

**9.4.1.5** The Contractor shall submit its Contractor Payment Request using the Contractor Payment Request form or forms current at the time of each application and as provided by the Contracting Authority in the manner prescribed by the Contracting Authority.

**9.4.1.6** If the Project is not administered using the State's web-based project management software, the Contractor shall submit 1 draft copy of its Contractor Payment Request ("Pencil Copy") to the A/E not less than 1 week prior to submitting multiple copies of its Contractor Payment Request. The A/E shall review the Pencil Copy and provide comments to the Contractor within 3 days of receiving it. The Contractor shall incorporate the A/E's comments into its Contractor Payment Request prior to submitting multiple copies for payment.

**9.4.1.7** The Contractor shall clearly indicate on the Contractor Payment Request, the amount(s) requested for each EDGE-certified Business used in the performance of the Contract. The amount(s) shall indicate labor and materials, as appropriate.

**9.4.1.8** The Contractor shall submit an electronic copy of the Contractor Payment Request to the A/E with its paper copies of the Contractor Payment Request for collection and reporting of information used for contract compliance evaluation and statistical purposes. The Contractor may issue the copy in any electronic media acceptable to the Contracting Authority.

**9.4.2** Payments, except for lump sum items, in Unit Price Contracts shall be made to the Contractor only for the authorized actual quantities of Work performed or materials furnished in accordance with the Contract Documents.

**9.4.3** Subject to **Section 9.8**, the Owner shall pay an approved Contractor Payment Request within 30 days from the date the A/E recommends acceptance of the Contractor Payment Request.

**9.4.3.1** Payments due and not paid to the Contractor, through no fault of the Contractor, within the 30 day period shall, from the date payment is due, bear simple interest at the applicable statutory rate.

**9.4.4** Notwithstanding any other provision of the Contract Documents, partial payments made pursuant to this **Section 9.4** constitutes neither acceptance of any Defective Work, nor a waiver of any rights set forth in the Contract Documents or otherwise provided by Applicable Law.

**9.4.5** The Contracting Authority and Owner may audit Contractor Payment Requests as described under **Section 7.9**.

**9.4.6** If the Project is administered using the State's web-based project management software, the Contractor shall submit its Contractor Payment Request, using the "Contractor Pay Request" or "Applications for Payment" business process.

## **9.5 Labor Payments**

**9.5.1** Partial payments to the Contractor for labor performed under either a Unit Price or lump sum Contract shall be made at the rate of 92 percent of the amount invoiced through the Contractor Payment Request that shows the Work is 50 percent complete.

**9.5.2** After the Work is 50 percent complete, as evidenced by payments of at least 50 percent of the Contract Sum including approved Change Orders to date, no additional funds shall be retained from payments for labor.

## **9.6 Material Payments**

**9.6.1** The Owner shall pay the Contractor at the rate of 100 percent of the scheduled value for materials incorporated into the Project.

**9.6.2** The Owner shall pay the Contractor at the rate of 92 percent of the invoice cost, not to exceed the scheduled value in a Unit Price or lump sum Contract, for materials delivered to the Site, or other off-site storage location approved by the A/E, provided the Contractor provides the following information with the Contractor Payment Request:

**9.6.2.1** a list of the fabricated materials consigned to the Project, giving the place of storage, together with copies of invoices, in order to verify quantity and cost; and

**9.6.2.2** a certification of materials stored off-site, prepared by the Contractor and signed by the A/E to evidence that the materials are in conformity with the Specifications and have been tagged with the Project name and number for

delivery to the Project. The Contractor shall directly reimburse the A/E for all costs incurred to visit a storage site, other than the areas adjacent to the Project.

**9.6.2.3** The Owner shall pay the balance of the scheduled value when the materials are incorporated into and become a part of the Project.

**9.6.3** When payment is allowed for materials delivered to the Site or other approved off-site storage location but not yet incorporated into the Project, the materials are the property of the Owner.

**9.6.3.1** The Owner may, at its sole discretion, retain any material not ultimately incorporated into the Project or return it to the Contractor for credit of an amount proportionate to the value of the extra materials.

## 9.7 Retainage

**9.7.1** If the total Contract Sum is \$15,000 or more, when the Contract is 50 percent complete, all funds retained for faithful performance of the Work, in accordance with **Section 9.5.1**, shall be deposited in an escrow account with a bank in the state in accordance with the terms and conditions provided in an escrow agreement executed by the Contractor, Contracting Authority, and applicable bank.

**9.7.2** When the Contractor has achieved Substantial Completion of all Work, and there is no other reason to retain funds; upon request of the Contractor, the funds retained in connection with that Work shall be released from escrow and paid to the Contractor, withholding only that amount necessary to assure faithful completion in the sole discretion of the Contracting Authority, including but not limited to compliance with **Section 6.25.2**.

**9.7.3** Upon consent by the Contractor's Surety, the Contracting Authority may reduce the amount of funds retained for the faithful performance of Work by 50 percent of the amount of funds required to be retained, provided the Contractor's Surety remains responsible for all damages that may be caused due to default by the Contractor, including, but not limited to, the following:

**9.7.3.1** completion of the Work;

**9.7.3.2** all interference, disruption, hindrance and delay claims;

**9.7.3.3** all Liquidated Damages; and

**9.7.3.4** all additional expenses incurred by the State.

## 9.8 Payments Withheld

**9.8.1** The A/E may recommend to the Contracting Authority that payments be withheld from, or Liquidated Damages be assessed against, a Contractor Payment Request.

**9.8.2** The Contracting Authority may decline to approve any Contractor Payment Request or part thereof, or nullify any previous Contractor Payment Request, in whole or in part, to the extent necessary in the Contracting Authority's sole opinion to protect the Owner from loss because of:

**9.8.2.1** Defective Work not remedied;

**9.8.2.2** damage caused by the Contractor;

**9.8.2.3** reasonable evidence that the Work cannot be completed for the unpaid balance of the Contract Sum;

**9.8.2.4** reasonable evidence that the Work will not be completed within the Contract Times, and that the unpaid balance would not be adequate to cover damages under the Contract Documents for the anticipated delay;

**9.8.2.5** failure to comply with Applicable Law including, but not limited to, the requirements of ORC Chapter 4115;

**9.8.2.6** failure to timely submit EDGE Participation Reports in accordance with **Section 1.8.2**;

**9.8.2.7** failure to timely identify the Contractor's proposed Subcontractors in accordance with **Section 4.1.1**;

**9.8.2.8** failure to timely approve a Construction Progress Schedule in accordance with **Section 6.5**;

**9.8.2.9** failure to carry out the Work in accordance with the Contract Documents; or

**9.8.2.10** that which is permitted under other provisions of the Contract Documents.

**9.8.3** If the Contractor remedies the basis for withholding payment under **Section 9.8.2** to the Contracting Authority's satisfaction, the Owner shall pay the amounts withheld.

## 9.9 Final Contractor Payment Request

**9.9.1** The Contractor, as a condition precedent to execution of the Certificate of Contract Completion and to final payment, shall complete all requirements of the Contract Documents.

**9.9.1.1** The Contractor and each of its Subcontractors, regardless of tier, shall execute a Payment Release Affidavit to certify that the Contractor and each of its Subcontractors, regardless of tier, have complied with all requirements of ORC Chapter 4115, and to certify that all of its Subcontractors have been paid in full for all Work performed or materials furnished for the Project.

**9.9.2** The Owner shall pay the final Contractor Payment Request within 30 days from the date the A/E recommends acceptance of the final Contractor Payment Request.

**9.9.2.1** Payments due and not paid to the Contractor within the 30 day period shall bear interest from the date payment is due under the Contract Documents at the applicable statutory rate.

**9.9.3** Acceptance of final payment by the Contractor or a Subcontractor constitutes the payee's waiver of all claims against the State except those previously made in writing under **Article 8** and identified by that payee as unsettled at the time of the final Contractor Payment Request.

**9.9.4** If the Project is administered using the State's web-based project management software, the Contractor shall submit its final Contractor Payment Request, using the "Contractor Pay Request" or "Applications for Payment" business process.

## ARTICLE 10 - BONDS, INSURANCE, AND INDEMNIFICATION

### 10.1 Payment and Performance Bonds

**10.1.1** Before signing the Agreement, the Contractor shall provide the Bond required under Applicable Law and below:

**10.1.1.1** If the Contractor provided **Document 00 43 13 - Bid Security Form** as its Bid Guaranty then that form shall be the Bond.

**10.1.1.2** If the Contractor provided another form of Bid Guaranty, then **Document 00 61 13 - Performance and Payment Bond Form** shall be the Bond.

**10.1.1.3** Each Surety under the Bond shall be licensed to do business in Ohio and satisfactory to the Contracting Authority.

**10.1.1.4** If there is more than one Surety under the Bond, each of them shall be jointly and severally liable as surety under the Bond.

**10.1.1.5** The penal sum of the Bond, when initially submitted, shall be equal to one-hundred percent of the Contract Sum.

**10.1.2** The Contractor shall submit with the executed Bond **(1)** a certified copy of the authority to act (power of attorney) of the agent signing the Bond on behalf of the Surety and **(2)** a current and signed Certificate of Compliance under ORC Section 9.311 issued by the Ohio Department of Insurance showing the Surety is licensed to do business in Ohio.

**10.1.3** If the Contract Sum increases at any time such that it exceeds the penal sum of the Bond, the Contractor shall cause the penal sum of the Bond to be increased such that the penal sum equals one-hundred percent of the increased Contract Sum.

**10.1.4** Any time the Contractor increases the penal sum of the Bond under **Section 10.1.3**, the Contractor shall deliver to the Contracting Authority written consent of the affected Surety or Sureties confirming the increased penal sum. The Contracting Authority's receipt of that written consent is a condition precedent to the Owner's obligation to pay the Contractor for any portion of the Work associated with the increase.

**10.1.5** If notice of any change affecting the Contract is required by any Surety or by the provision of any Bond, the Contractor shall provide that notice.

### 10.2 Contractor's General Insurance Requirements

**10.2.1** Throughout the performance of the Work or longer as may be described below, the Contractor shall obtain, pay for, and keep in force, the minimum insurance coverage described in this **Article 10**.

**10.2.1.1** Each requirement of this **Article 10** applies to Subcontractors just as it applies to the Contractor.

**10.2.1.2** If a Subcontractor's usual insurance coverage does not meet the minimum coverage requirements, before entering into an agreement with that Subcontractor, the Contractor shall submit to the Contracting Authority **(1)** a certificate of insurance evidencing the insurance the Subcontractor will carry without additional compensation and **(2)** if the Contracting Authority requests, a written proposal from the Subcontractor to provide coverage that meets the minimum coverage requirements. The Contracting Authority will decide whether to accept the non-conforming insurance coverage or the proposal to provide conforming coverage.

**10.2.1.3** On a case-by-case basis, the Contracting Authority and Contractor may agree to adjust the below requirements for any particular Subcontractor.

**10.2.2** Before starting the Work on the Site, upon renewal of any policy, and upon a change of any insurance carrier, the Contractor shall deliver to the Contracting Authority certificates evidencing that the required insurance is in force.

**10.2.3** With the exception of government-controlled workers compensation coverage:

**10.2.3.1** the Contractor shall place the insurance with companies that **(1)** are satisfactory to the Contracting Authority, **(2)** hold an A.M. Best Rating of A-, X, or higher, and **(3)** are authorized to conduct business in Ohio;

**10.2.3.2** the policies shall be endorsed to require the Contractor's insurance carrier to **(1)** provide 30-days' written notice to the Contracting Authority (as certificate holder) of the cancellation or non-renewal of the insurance and **(2)** provide at least 10-days' written notice to the Contracting Authority (as certificate holder) of the cancellation of the insurance for non-payment of premium; and

**10.2.3.3** within 30 days of the Contracting Authority's request, the Contractor shall submit insurance-company certified copies of the policies, the policy endorsements, loss-run reports, or all three.

**10.2.4** The Contractor shall pay all deductibles, or self-insured retentions, or both contained in the Contractor's policies of insurance required or provided in connection with the Project. The Contracting Authority reserves the right to approve or reject all levels of self-insured retention, captive insurance programs, or other alternative risk financing the Contractor may use to comply with any insurance requirement.

**10.2.5** The Contractor shall pay a proportionate share of the deductibles, or self-insured retentions, or both contained in any insurance policy the Contracting Authority purchases for the Project. The Contractor's proportionate share will derive from the percentage of the associated claim or loss attributable to the alleged or actual negligence of the Contractor or a Subcontractor.

**10.2.6** The Contracting Authority and Owner do not represent that required coverage or limits are adequate to protect the Contractor.

**10.2.7** Failure of the Contracting Authority to demand a certificate or other evidence of full compliance with the insurance requirements or failure of Contracting Authority to identify a deficiency from evidence that is provided shall not be construed as a waiver of the Contractor's obligation to maintain the required insurance.

**10.2.8** The Contracting Authority may terminate the Contract for cause on account of the Contractor's failure to maintain required insurance.

### **10.3 Contractor's Minimum Coverage Requirements**

**10.3.1** Workers Compensation. The Contractor shall maintain workers compensation coverage meeting the requirements of Applicable Law.

**10.3.2** Employers Liability Coverage. The Contractor shall maintain employers liability coverage with **(1)** an each-accident limit of not less than \$1,000,000, **(2)** a disease each-employee limit of not less than \$1,000,000, and **(3)** a disease policy limit of not less than \$1,000,000.

**10.3.3** Commercial General Liability. The Contractor shall maintain commercial general liability ("CGL") coverage that provides **(1)** an each-occurrence limit of not less than \$1,000,000, **(2)** a general-aggregate limit of not less than \$2,000,000, and **(3)** a products and completed-operations aggregate limit of not less than \$2,000,000.

**10.3.3.1** The CGL insurance shall be written on ISO occurrence form CG 00 01 10 01 or a substitute form, providing at least equivalent coverage for liability arising from premises, operations, independent contractors, products/completed-operations, personal and advertising injury, and liability assumed under an insured contract.

**10.3.3.2** The Contractor shall include the State, Contracting Authority, Owner, and A/E as additional insureds under the CGL policy using ISO endorsement CG 20 10 07 04 and ISO endorsement CG 20 37 07 04 or a substitute form(s) providing equivalent coverage.

**10.3.3.3** The CGL policy shall be endorsed using ISO endorsement CG 25 03 or a substitute form providing equivalent coverage to provide that the general aggregate limit applies separately to each of the insured's projects.

**10.3.3.4** The CGL insurance shall apply as primary and non-contributory insurance with respect to any other insurance or self-insurance programs that cover the additional insured(s).

**10.3.3.5** The CGL policy shall not exclude coverage to the additional insured(s) for bodily injury or property damage arising out of the products/completed-operations hazard.

**10.3.3.6** The Contractor shall maintain the CGL insurance in effect for no less than 5 years after the earlier of the termination the Contract or Substantial Completion of all Work.

**10.3.4 Business Automobile Liability.** The Contractor shall maintain business automobile ("BA") coverage written on ISO form CA 00 01 10 01 or a substitute form, providing at least equivalent coverage with a limit of not less than \$1,000,000 each accident.

**10.3.4.1** The coverage shall extend to any auto.

**10.3.4.2** The Contractor shall include the State, Contracting Authority, Owner, and A/E as additional insureds under the BA policy.

**10.3.5 Umbrella/Excess Liability.** The Contractor may employ an umbrella/excess liability policy to achieve the above-required minimum coverage.

**10.3.5.1** The Contractor shall maintain umbrella/excess liability coverage with a limit of not less than \$2,000,000 (in addition to the above-required limits) if the Work (or the Work to be performed by the Subcontractor) includes any of the following:

- .1 brick/block masonry;
- .2 exterior caulking/sealant;
- .3 cast-in-place or precast concrete;
- .4 curtain wall;
- .5 dampproofing/waterproofing;
- .6 electrical;
- .7 elevator;
- .8 exterior glass and/or glazing;
- .9 exterior marble, granite, and/or other stonework;
- .10 miscellaneous metals;
- .11 plaster/stucco;
- .12 plumbing;
- .13 HVAC;
- .14 roofing and/or sheet metal;
- .15 scaffolding;
- .16 spray-on fireproofing;
- .17 sprinkler and/or fire protection; or
- .18 structural steel and/or metal deck.

**10.3.5.2** The Contractor shall maintain umbrella/excess liability coverage with a limit of not less than \$5,000,000 (in addition to the above-required limits) if the Work (or the Work to be performed by the Subcontractor) includes any of the following:

- .1 caissons and/or piles;
- .2 demolition;
- .3 excavation and/or utility work;
- .4 sheeting, shoring, and/or underpinning;
- .5 window washing equipment; or
- .6 wrecking.

**10.3.6 Contractor's Pollution Liability.** If the Work includes environmentally sensitive, hazardous types of activities (such as demolition, exterior insulation finish systems, Asbestos abatement, storage-tank removal, or similar activities), or involves Hazardous Materials, the Contractor shall maintain a contractor's pollution liability ("CPL") policy with **(1)** a per-claim limit of not less than \$1,000,000 and **(2)** an annual-aggregate limit of not less than \$1,000,000, covering the

acts, errors and/or omissions of the Contractor for damages (including from mold) sustained by the Owner by reason of the Contractor’s performance of the Work.

**10.3.6.1** The CPL policy shall have an effective date, which is on or before the date that the Contractor first started to perform any Project-related services.

**10.3.6.2** Upon submission of the associated certificate of insurance and at each policy renewal, the Contractor shall advise the Contracting Authority in writing of any actual or alleged claims that may erode the CPL policy’s limits.

**10.3.6.3** The Contractor shall maintain the CPL insurance in effect for no less than 5 years after the earlier of the termination of the Contract or Substantial Completion of all Work.

**10.3.7 Professional Liability—Contractor.** The Contractor shall maintain professional liability insurance (including without limitation for sprinkler and/or fire protection and other design-build work included in the Work) without design-build exclusions with limits not less than as identified in the following table:

Contract Sum	Each Claim	Annual Aggregate
Up to \$50,000,000	\$1,000,000	\$2,000,000
More than \$50,000,000	\$2,000,000	\$4,000,000

**10.3.7.1** The professional liability policy shall have an effective date on or before the date that the Contractor first started to provide any Project-related services.

**10.3.7.2** Upon submission of the associated certificate of insurance and at each policy renewal, the Contractor shall advise the Contracting Authority in writing of any actual or alleged claims that may erode the professional liability policy’s limits.

**10.3.7.3** The Contractor shall maintain the professional liability insurance in effect for no less than 5 years after the earlier of the termination of the Contract or Substantial Completion of all Work.

**10.3.7.4** If the Contractor is not authorized under Applicable Law to directly provide professional design services, the Contractor may satisfy the requirements of this **Section 10.3.7** by providing a contractor’s professional liability insurance policy.

**10.3.7.5** If the Contractor is a joint venture:

- .1 the Contractor may meet the requirements of this **Section 10.3.7** by providing a PL policy under which each joint venturer is the insured; or
- .2 each joint venturer shall individually meet the requirements of this **Section 10.3.7** by providing a PL policy **(1)** under which the individual joint venturer is the insured and **(2)** that covers that joint venturer’s interests in the joint venture by endorsement or otherwise. The certificate of insurance shall reflect that the PL policy covers the joint venturer’s interest in the joint venture.

*Example:* Assume that the Contractor **(1)** is the “XY joint venture” of company “X” and company “Y”; and **(2)** is required under **Section 10.3.7** to maintain PL insurance limits of \$1M/\$2M. In order to comply with **Section 10.3.7.5.2**, “X” must maintain PL insurance limits of \$1M/\$2M and “Y” must maintain PL insurance limits of \$1M/\$2M.

**10.3.7.6** If the Contractor is a limited-liability company, which members consist of two or more separate firms:

- .1 the Contractor may meet the requirements of this **Section 10.3.7** by providing a PL policy under which the limited-liability company is the insured; or
- .2 each member of the limited-liability company shall individually meet the requirements of this **Section 10.3.7** by providing a PL policy **(1)** under which the individual member is the insured and **(2)** that covers that member’s interests in the limited-liability company by endorsement or otherwise. The certificate of insurance shall reflect that the PL policy covers the member’s interest in the limited-liability company.

*Example:* Assume that the Contractor **(1)** is the “XY limited-liability company,” the members of which are “X” and “Y”; and **(2)** is required under **Section 10.3.7** to maintain PL insurance limits of \$1M/\$2M. In order to comply with **Section 10.3.7.6.2**, “X” must maintain PL insurance limits of \$1M/\$2M and “Y” must maintain PL insurance limits of \$1M/\$2M.

**10.3.8 Professional Liability—Subcontractors.** If the Work to be performed by a Subcontractor includes any professional design services (including without limitation sprinkler and/or fire protection and other design-build work) the Subcontractor shall maintain professional liability insurance without design-build exclusions with limits not less than as identified in the following table:

Subcontract Sum	Each Claim	Annual Aggregate
Up to \$50,000,000	\$1,000,000	\$2,000,000
More than \$50,000,000	\$2,000,000	\$4,000,000

**10.3.8.1** The professional liability policy shall have an effective date on or before the date that the Subcontractor first started to provide any Project-related services.

**10.3.8.2** Upon submission of the associated certificate of insurance and at each policy renewal, the Contractor shall advise the Contracting Authority in writing of any actual or alleged claims that may erode the Subcontractor's professional liability policy's limits.

**10.3.8.3** The Subcontractor shall maintain the professional liability insurance in effect for no less than 5 years after the earlier of the termination of the Contract or Substantial Completion of all Work.

**10.3.8.4** If the Subcontractor is not authorized under Applicable Law to directly provide professional design services, the Subcontractor may satisfy the requirements of this **Section 10.3.7.5** by providing a contractor's professional liability insurance policy.

**10.3.9 Aviation Liability.** If the Contractor or a Subcontractor uses aircraft, including helicopters, in performance of the Work, the Contractor shall maintain aircraft or aviation liability coverage in an amount of no less than \$10,000,000. The Contracting Authority and Owner will not be liable for any damage to any aircraft owned, leased, rented, or borrowed by the Contractor or a Subcontractor.

**10.3.10 Watercraft Liability.** If the Contractor or a Subcontractor uses watercraft in performance of the Work, the Contractor shall maintain watercraft liability coverage including protection and indemnity insurance in an amount of no less than \$5,000,000. The Contracting Authority and Owner will not be liable for any damage to any watercraft owned, leased, rented, or borrowed by the Contractor or Subcontractor.

**10.3.11 Equipment Coverage.** The Contracting Authority and Owner will not insure or be liable for damage to any Contractor or Subcontractor owned, leased, rented, or borrowed tools, equipment, or vehicles. The Contractor and Subcontractors are solely responsible for maintaining all insurance necessary to cover their tools, equipment, and vehicles.

**10.3.12 Ocean Marine Insurance.** If the shipment of equipment or materials for the Work will not be covered by the builder's risk insurance required under **Section 10.4**, the Contractor shall maintain ocean marine insurance to the Site including cost, insurance, and freight with limits of not less than an amount equal to the full replacement cost of equipment/materials shipped to final destination point. The insurance shall include the following minimum requirements:

**10.3.12.1** all-risk basis including war risk and all forms of terrorism;

**10.3.12.2** coverage for general average and salvage charges;

**10.3.12.3** "on deck" coverage;

**10.3.12.4** warehouse-to-warehouse coverage;

**10.3.12.5** coverage to include losses from strikes, riots, and civil commotions ("SR&CC coverage");

**10.3.12.6** coverage to include losses from free of capture and seizure warranty ("FC&S Warranty coverage");

**10.3.12.7** "Inchmaree" clause;

**10.3.12.8** sue and labor;

**10.3.12.9** "both-to-blame" coverage;

**10.3.12.10** free of particular average;

**10.3.12.11** inland coverage including on-land shipment, port storage, and barge transit upon inland waterways; and

**10.3.12.12** damage by saltwater and rainwater perils and cargo sweat.

**10.3.13 Additional Property Insurance.** For any demolition, blasting, excavating, tunneling, shoring, or similar operations, the Contractor shall provide and maintain Property Damage Liability insurance with a limit of liability equal to the limit as specified in the applicable sections of **Article 10**.

## 10.4 Builder's Risk Insurance

**10.4.1** The Contractor shall provide and maintain, during the progress of the Work and until Contract Completion, a builder's risk insurance policy to cover all Work in the course of construction including false-work, temporary buildings and structures, and materials used in the construction process, stored on or off-site, or while in transit. This insurance shall be on a special cause of loss form that provides coverage on an open perils basis insuring against the direct physical loss of, or damage to, covered property including, but not limited to, theft, vandalism, malicious mischief, earthquake, tornado, lightning, explosion, breakage of glass, flood, collapse, water damage, and hot and cold testing. This insurance shall be written on a replacement cost basis and shall also include debris removal, and/or demolition occasioned by enforcement of Applicable Law.

**10.4.1.1** The amount of coverage shall be not less than the total completed value of the Project, including the value of permanent fixtures and decorations, with a deductible of not more than \$25,000 per occurrence. Any deductible over the amount specified shall be authorized in writing by the Owner and Contracting Authority.

**10.4.1.2** Coverage shall include a provision to pay the reasonable extra costs of acceleration and expediting temporary and permanent repairs to, or permanent replacement of, damaged property. This shall include overtime wages and the extra cost of "express" or other means for rapidly transporting materials and supplies necessary to the repair or replacement.

**10.4.1.3** Coverage shall include "soft cost endorsement" including, but not limited to, the reasonable extra costs of the A/E and reasonable Contractor extension or acceleration costs.

**10.4.1.4** Coverage shall include material in transit or stored off-site and identified for the Project.

**10.4.1.5** Coverage shall waive all rights between the Owner, Contracting Authority, Contractor, and Subcontractors at any tier, for damages caused by fire or any other perils to the extent of actual recovery of any insurance proceeds under the policy.

**10.4.1.6** Coverage shall include appropriate sub-limits for installation coverage.

**10.4.1.7** Coverage shall include provisions for mechanical or electrical breakdown, or boiler system testing.

**10.4.1.8** Coverage shall include temporary structures and scaffolding, along with collapse coverage.

**10.4.1.9** Coverage shall be primary to all other applicable insurance.

**10.4.1.10** The builder's risk policy shall specifically permit and allow for Partial Occupancy by the Owner prior to Contract Completion and coverage shall remain in effect until all punch list items are completed.

**10.4.1.11** The Contractor's tools and equipment shall not be covered under the builder's risk policy. It is the Contractor's sole responsibility to maintain such coverage, which shall be included in its Overhead (a component of Contractor's Fee) and not included as a separate item in the Contractor's Schedule of Values.

**10.4.2** If the Contractor is involved solely in the installation of material and equipment and not in new building construction, the Contractor shall purchase and maintain a builder's risk, builder's risk-renovations, or installation floater insurance policy. The policy shall comply with the provisions of **Section 10.4.1**.

## 10.5 Waivers of Subrogation

**10.5.1** To the fullest extent permitted by Applicable Law, the Contractor waives all rights against the Owner, Contracting Authority, and their agents and employees for damages to the extent covered by any insurance, except rights to the proceeds of that insurance. All policies shall accomplish the waiver of subrogation by endorsement or otherwise.

**10.5.2** The Owner, Contracting Authority, and Contractor waive all rights against each other for damages caused by fire or other perils to the extent of actual recovery of any insurance proceeds under any property insurance, inland marine insurance, or builder's risk insurance applicable to the Work.

## 10.6 Indemnification for Injury or Damage

**10.6.1** To the fullest extent permitted by Applicable Law, the Contractor shall indemnify, defend, and hold harmless the Indemnified Parties from and against all claims, costs, damages, losses, fines, penalties, and expenses (including but not limited to all fees and charges of attorneys and other professionals, and all court, arbitration, or other dispute-resolution costs) arising out of or in connection with the Project, provided that any such claim, cost, damage, loss, fine, penalty, or expense is attributable to:

**10.6.1.1** bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property but only to the extent caused by the negligent acts, errors, or omissions of the Contractor or a person or entity for whom the Contractor may be liable;

**10.6.1.2** infringement of patent rights or copyrights by the Contractor or a person or entity for whom the Contractor may be liable; or

**10.6.1.3** a violation of Applicable Law but only to the extent attributable to the Contractor or a person or entity for whom the Contractor may be liable.

**10.6.2** The Contractor's indemnification obligation under **Section 10.6** exists regardless of whether or not and the extent to which the claim, damage, loss, fine, penalty, or expense is caused in part by a party indemnified under **Section 10.6**. But nothing in **Section 10.6** obligates the Contractor to indemnify any individual or entity from and against the consequences of that individual or entity's own negligence.

**10.6.3** The Contractor's obligations under **Section 10.6** shall not extend to the liability of the A/E, A/E's consultants, agents, representatives, or employees for negligent preparation or approval of Drawings, Specifications, Change Orders, opinions, and any other responsibility of the A/E, except to the extent covered by the Contractor's insurance.

**10.6.4** In claims against an Indemnified Party by any direct or indirect employee (or the survivor or personal representative of that employee) of the Contractor or a person or entity for whom the Contractor may be liable, the indemnification obligation under **Section 10.6** will not be limited by a limitation on the amount or type of damages, compensation, or benefits payable under workers' compensation acts, disability benefit acts, or other employee benefit acts.

**10.6.5** The Contractor's indemnification obligation under **Section 10.6** will not be limited by any insurance policy provided or required in connection with the Project.

**10.6.6** The Contractor's obligations under **Section 10.6** shall not negate, abridge, or reduce other rights or obligations of indemnity, which would otherwise exist as to an Indemnified Party.

**10.6.7** The Contractor's indemnification obligation under **Section 10.6** will survive termination of the Contract and Contract Completion.

**10.6.8** The Contracting Authority may deduct from the Contract Sum the claims, damages, losses, fines, penalties, and expenses for which the Contractor is liable under **Section 10.6**. If those claims, damages, losses, fines, penalties, and expenses exceed the unpaid balance of the Contract Sum, the Contractor shall immediately pay the difference to the Owner.

## ARTICLE 11 - SUSPENSION AND TERMINATION

### 11.1 Suspension of the Work

**11.1.1** The Contracting Authority, without cause and without prejudice to any other right or remedy it may have, may order the Contractor in writing to suspend, delay, or interrupt performance of the Work in whole or in part for such period as the Contracting Authority may determine.

**11.1.1.1** If the Contracting Authority suspends the Work under this **Section 11.1.1** and the Contractor complies with **Article 8**, the Contract Sum and Contract Times shall be adjusted for increases in the cost and time caused by the suspension, delay, or interruption. The adjustment of the Contract Sum, however, shall not include profit (a component of Contractor's Fee).

**11.1.1.2** Notwithstanding the foregoing, no adjustment shall be made to the Contract Sum or Contract Times to the extent that:

- .1 performance was, or could have been, suspended, delayed, or interrupted by a cause for which the Contractor is responsible; or
- .2 an equitable adjustment is made or denied under another provision of the Contract.

**11.1.1.3** If the Contracting Authority suspends the Work under this **Section 11.1.1** and the Contractor submits a proper Contractor Payment Request, subject to all other provisions of the Contract Documents, the Contractor shall be entitled to payment of compensation due under the Contract Documents for Work performed before the suspension based upon the Schedule of Values.

**11.1.2** The Contracting Authority, without prejudice to any other right or remedy it may have, may order the Contractor in writing to suspend, delay, or interrupt the performance of the Work in whole or in part for such period as the Contracting Authority may determine for any of the following reasons: **(1)** Defective Work; **(2)** the Contractor is causing undue risk of damage to any part of the Project or adjacent area; **(3)** the Contractor fails to furnish or perform the Work

in such a way that the complete Work will conform to the requirements of the Contract Documents; or **(4)** any other cause the Contracting Authority reasonably believes justifies suspension.

**11.1.2.1** The Contracting Authority's exercise of its right to suspend the Work under this **Section 11.1.2** shall not entitle the Contractor to any adjustment of the Contract Sum, Contract Times, or both.

**11.1.2.2** If the Contracting Authority is adjudged to have improperly suspended the Work under this **Section 11.1.2**, the suspension shall be deemed to have been a suspension under **Section 11.1.1**.

**11.1.3** Upon receipt of notice of suspension under this **Section 11.1**, the Contractor shall cease Work on the suspended activities and take all necessary or appropriate steps to limit disbursements and minimize respective costs. The Contractor shall furnish a report to the Contracting Authority, within 5 days of receiving the notice of suspension, describing the status of the Work, including, but not limited to, results accomplished, resulting conclusions, and other information as the Contracting Authority may require.

**11.1.4** The Contracting Authority's right to stop the Work shall not give rise to any duty to exercise the right for the benefit of the Contractor or any other party, and the Contracting Authority's exercise or failure to exercise the right shall not prejudice any of the Contracting Authority's other rights.

## 11.2 Termination for Convenience

**11.2.1** The Contracting Authority may, at any time, terminate the Contract in whole or in part for the Owner's convenience and without cause, at any time upon 10 days' written notice to the Contractor.

**11.2.2** Upon receipt of the notice of termination for convenience, the Contractor shall immediately proceed with performance of the following duties in accordance with instructions from the Contracting Authority:

**11.2.2.1** cease operation as specified in the notice;

**11.2.2.2** place no further orders and enter into no further subcontracts for materials, labor, services, or facilities, except as necessary to complete continued portions of the Project;

**11.2.2.3** terminate all subcontracts and orders to the extent they relate to the Work terminated;

**11.2.2.4** proceed with Work not terminated; and

**11.2.2.5** take actions that may be necessary, or that the Contracting Authority may direct, for the protection and preservation of the terminated Work.

**11.2.3** Upon termination, the Contracting Authority shall pay the Contractor in accordance with the Schedule of Values for Work completed, including any retained funds, and the value of materials ordered and delivered, less any salvage credit the Contractor may receive for them.

**11.2.3.1** All materials, equipment, facilities, and supplies at the Site or stored off-site, for which the Contractor has received payment, shall become the property of the Owner.

**11.2.3.2** The Contractor is entitled to a fair and reasonable profit for Work performed and reasonable expenses directly attributable to termination of the Contract. In no event shall the Contractor be entitled to **(1)** Contractor's Fee on Work not performed or **(2)** compensation in excess of the total Contract Sum.

**11.2.4** If the Contracting Authority terminates the Work under this **Section 11.2**, the termination shall not affect the rights or remedies of the State against the Contractor then existing or which may thereafter accrue.

**11.2.5** Notwithstanding **Section 11.2.3**, if the Contracting Authority terminates the Work under this **Section 11.2**, but there exists an event of the Contractor's default, the Contractor shall be entitled to receive only such amounts as it would be entitled to receive following the occurrence of an event of default as provided in **Section 11.3**.

## 11.3 Termination for Cause

**11.3.1** The Contracting Authority may terminate all or a portion of the Contract if the Contractor commits a material breach of the Contract including but not limited to:

**11.3.1.1** failure to prosecute the Work with the necessary force or in a timely manner;

**11.3.1.2** refusal to remedy Defective Work;

**11.3.1.3** failure to supply enough properly skilled workers or proper materials;

**11.3.1.4** failure to properly make payment to Subcontractors or Consultants;

**11.3.1.5** performance of any services outside of the United States;

**11.3.1.6** permitting its Subcontractors or Consultants to perform any services outside of the United States; or

**11.3.1.7** disregarding laws, ordinances, or rules, regulations, or orders of a public authority with jurisdiction over the Project.

**11.3.2** If the Contracting Authority intends to exercise its termination rights under this **Section 11.3**, the Contracting Authority shall issue not less than 5 days' written notice to the Contractor and the Contractor's Surety in accordance with ORC Section 153.17 ("5-Day Notice").

**11.3.2.1** Notwithstanding any provision of the Contract to the contrary **(1)** the issuance of a 72-Hour Notice under **Section 6.23.1** is not a condition precedent to the Contracting Authority's exercise of its rights under **Section 11.3** and **(2)** the Contracting Authority's decision to not issue a 72-Hour Notice under **Section 6.23.1** will not prejudice the Contracting Authority's rights under **Section 11.3**.

**11.3.3** If the Contractor fails to satisfy the requirements set forth in the 5-Day Notice within 15 days of receipt of the 5-Day Notice, the Contracting Authority may declare the Contractor in default, terminate the Contract, and employ upon the Work the additional force or supply materials or either as appropriate, and remove Defective Work.

**11.3.4** If the Contract is terminated, the Contractor's Surety may perform the Contract. If the Contractor's Surety does not commence performance of the Contract within 10 days of the date of Contract termination, the Contracting Authority may complete the Work by means the Contracting Authority determines appropriate. The Contracting Authority may take possession of and use all materials, facilities, and equipment at the Site or stored off-site, for which the State has paid.

**11.3.5** If the Contract is terminated, the Contractor shall not be entitled to further payment. If the unpaid balance of the Contract Sum is exceeded by the costs of finishing the Work, including without limitation the fees and charges of engineers, architects, attorneys, and other professionals and court costs, and other damages incurred by the Owner and not expressly waived, the Contractor or Surety shall immediately pay the amount of the insufficiency to the Owner. This obligation for payment shall survive termination of the Contract.

**11.3.6** If the Contractor's Surety performs the Work, the provisions of the Contract Documents govern the Surety's performance, with the Surety in place of the Contractor in all provisions including, but not limited to, provisions for payment for the Work, and provisions of the right of the Contracting Authority to complete the Work.

**11.3.7** If the Contracting Authority terminates the Contract under this **Section 11.3**, the termination shall not affect any rights or remedies of the State against the Contractor then existing or which may thereafter accrue. The Contracting Authority's retention or payment of funds due the Contractor shall not release the Contractor or the Contractor's Surety from liability for performance of the Work in accordance with the requirements of the Contract Documents.

**11.3.8** If the Contracting Authority is adjudged to have improperly terminated the Contract under this **Section 11.3**, the termination will be deemed to have been a termination under **Section 11.2**.

## **11.4 Contractor Insolvency**

### **11.4.1 Bankruptcy of Contractor.**

**11.4.1.1** If the Contractor files a voluntary petition in bankruptcy or has an involuntary petition in bankruptcy filed against it, the Contractor, the Contractor as the debtor-in-possession, or the trustee of the Contractor's bankruptcy estate shall file a motion to assume or reject the Contract under Bankruptcy Code §365, 11 U.S.C. §365, within 20 days after the filing of the voluntary petition or involuntary petition and shall diligently prosecute that motion to conclusion so as to obtain an order granting or denying that motion within 45 days after the filing of the voluntary or involuntary petition. The failure to file and prosecute that motion within the time limits provided by this **Section 11.4** shall constitute a material breach of the Contract as time is of the essence with respect to Contractor's performance of all terms of this Contract. The Contractor agrees to the granting of relief from the automatic stay of the Bankruptcy Code, 11 U.S.C. §362(a), to permit the Contracting Authority to terminate the Contract for cause in such instance and issue and serve all notices necessary to terminate the Contract or arising out of the termination of the Contract and to take any and all other action necessary to terminate the Contract.

### **11.4.2 Receivership or Assignment for the Benefit of Creditors.**

**11.4.2.1** If the Contractor makes a general assignment for the benefit of creditors or if a receiver is appointed for all or a substantial part of the Contractor's business or property, the Contracting Authority shall serve written notice on the Contractor and Contractor's Surety stating that any failure of the Contractor to provide adequate assurance of continued performance shall be considered a rejection of the Contract, which shall result in termination of the Contract for cause. Such termination of the Contract need not be evidenced by an order of any court.

**ARTICLE 12 - GENERAL PROVISIONS****12.1 Contractor's Documents and Contract Documents****12.1.1 Ownership.**

**12.1.1.1** The Owner alone owns the Contractor's Documents and the Contract Documents and every right, title, and interest therein.

- .1** The Contractor must execute and deliver and cause its employees and agents and all Subcontractors and Consultants to execute and deliver, to the Owner any transfers, assignments, documents, or other instruments (if any) necessary to vest in the Owner complete right, title, interest in and ownership of the Contractor's Documents and the Contract Documents.

**12.1.1.2** The Contractor may retain copies, including reproducible copies, of the Contractor's Documents and the Contract Documents for information, reference, and performance of the Work.

**12.1.1.3** The submission or distribution of the Contractor's Documents or the Contract Documents to meet official regulatory requirements or for similar purposes in connection with the Project is not a waiver of the Owner's reserved rights in the Contractor's Documents and the Contract Documents. Any unauthorized use of the Contractor's Documents or the Contract Documents shall be at the sole risk of the entity making the unauthorized use.

**12.1.1.4** The Contractor shall provide Electronic Files (in native format) to Separate Consultants and Separate Contractors for their use in connection with the Project. The Contractor shall provide the Electronic Files **(1)** at no additional cost to the Separate Consultants, Separate Contractors, and Owner and **(2)** without requiring the Separate Consultants, Separate Contractors, or Owner to agree to any terms or conditions concerning the provision, receipt, or use of the Electronic Files that differ in any material respect from the Contract.

**12.1.2 Intent.**

**12.1.2.1** The intent of the Contract Documents is to include all items necessary for the proper execution and completion of the Work by the Contractor.

**12.1.2.2** The Contract Documents are complementary, and what is required by one is binding as if required by all.

**12.1.2.3** The Contractor shall provide all labor and materials necessary for the entire completion of the Work described in the Contract Documents and reasonably inferable to produce the intended results.

**12.1.2.4** The Drawings govern dimensions, details, and locations of the Work. The Specifications govern quality of materials and workmanship.

**12.1.2.5** The organization of the Specifications in divisions, sections, and articles, and the arrangement of Drawings shall not restrict the Contractor in dividing the Work among Subcontractors or in establishing the extent of Work to be performed by any trade.

**12.1.2.6** In the event of inconsistency or conflict within the Contract Documents, the Contractor shall provide the better quality or greater quantity of Work, and comply with the stricter requirement.

**12.1.2.7** Unless otherwise defined in the Contract Documents, words that have well-known technical or construction industry meanings are used in accordance with those recognized meanings.

**12.1.2.8** The Sections of Division 01 - "General Requirements" govern the performance of the Work of all Sections of the Specifications.

**12.1.3 Use of Electronic Files.**

**12.1.3.1** The Owner, Contracting Authority, A/E, and Contractor reasonably expect that they will provide Electronic Files to each other to facilitate the design and construction of the Project consistent with current practices and customs in the construction industry.

**12.1.3.2** The Owner, Contracting Authority, A/E, and Contractor acknowledge that the use of Electronic Files involves risks not generally associated with the use of paper documents. Those risks include, for example and without limitation, alteration (inadvertent or intentional) and deterioration, both of which may not be readily apparent through casual observation.

**12.1.3.3** The Owner, Contracting Authority, A/E, and Contractor do not warrant to each other that any Electronic File they provide **(1)** was not altered though transmission; **(2)** is compatible with the recipient's computer system or software; **(3)** will not be altered through degradation of the recipient's storage media; or **(4)** is suitable for conversion/translation to and subsequent use in a system or format other than the Electronic File's original system or format.

**12.1.3.4** Before relying on any Electronic File it receives, the recipient is responsible for verifying that the Electronic File was not altered through transmission, degradation of the recipient's own storage media, or other causes.

**12.1.3.5** If the recipient of an Electronic File converts/translates the Electronic File from its original system or format to an alternate system or format, the recipient assumes the risk that the conversion/translation created errors in the converted/translated file.

**12.1.3.6** The Owner, Contracting Authority, A/E, and Contractor shall each maintain and operate its own computer systems and storage media in a commercially reasonable way and take reasonable steps to prevent errors in and deterioration of the Electronic Files it creates, provides, and receives.

**12.1.3.7** In the event of a discrepancy between information contained in a paper version of a document and the Electronic File of that document, the paper version will govern.

**12.1.3.8** This **Section 12.1.3** does not relieve the Contractor of its responsibility for the preparation, completeness, or accuracy of the Contractor's Documents.

## 12.2 Public Relations

**12.2.1** Publicity prior to completion of the Project. Prior to completion of the Project, public relations or publicity about the Project shall be solely within the control, and with the consent of, the Owner.

**12.2.2** Publicity after completion of the Project. After completion of the Project, the Contractor may exercise reasonable public relations and marketing efforts related to the Project, provided the Contractor properly identifies the Owner and Contracting Authority, and their participation in the Project.

**12.2.3** Professional Photography. If the Contractor commissions photography of the completed Project, the Contractor shall include in its photography agreements a release for unrestricted and unlimited use of photographs by the Owner and Contracting Authority, and shall provide the Owner and Contracting Authority with a reasonable quantity of photographs for use in the Owner's and the Contracting Authority's marketing and awareness activities, including, but not limited to, profiles of the Project on their respective websites.

**12.2.4** Craft Awards and Other Recognition. If the Contractor submits the Project for craft awards or other similar venues for recognition of the Project, the Contractor shall properly identify the Owner and Contracting Authority, and their participation in the Project. In addition, if the Project receives any craft award or other recognition, the Contractor shall provide duplicate copies of the award plaque or other memento of the award to the Owner and Contracting Authority.

## 12.3 Application and Governing Law

**12.3.1** The Contract and the rights of the parties thereunder shall be governed by the laws of the state of Ohio and only Ohio courts shall have jurisdiction over any action or proceeding concerning the Contract and/or performance thereunder. The Contractor irrevocably consents to such jurisdiction.

**12.3.2** The parties to the Contract shall comply with Applicable Law.

**12.3.3** Other rights and responsibilities of the Contractor, A/E, Contracting Authority, and Owner are set forth throughout the Contract Documents and included under different titles, articles, and paragraphs for convenience.

## 12.4 Conditions of the Contract

**12.4.1** These General Conditions govern, take precedence over, and shall not be superseded or amended by Drawings and Specifications, unless so provided in Supplementary Conditions prepared by the Contracting Authority and approved by the Ohio Facilities Construction Commission.

## 12.5 Notice of Commencement.

**12.5.1** The Contracting Authority shall prepare a Notice of Commencement and make it available as required under ORC Section 1311.252.

**12.5.2** Upon request, the Contracting Authority or the Contractor shall furnish the Notice of Commencement to Subcontractors or any other member of the public.

## 12.6 Written Notice

**12.6.1** Notice under the Contract Documents shall be validly given if:

**12.6.1.1** delivered personally to a member of the organization for whom the notice is intended;

**12.6.1.2** delivered, or sent by registered or certified mail, to the last known business address of the organization; or

**12.6.1.3** sent by facsimile, email, or web-based project management software, provided the original, signed document is delivered within 3 business days after the date of the electronic transmission.

**12.6.2** When the Owner, Contracting Authority, A/E, or Contractor gives notice to one of the other 3, it shall also simultaneously send a copy of that notice to the others.

**12.6.3** A copy of all notices, certificates, requests, or other communications to the Contracting Authority shall be sent to the Project Manager.

**12.6.4** In the event of an emergency involving the Project, including, but not limited to, a fatality, serious injury, fire, collapse, flood, utility, or power loss to occupied facilities, explosion, or environmental damage, the Contractor shall immediately notify the A/E, Contracting Authority, and Owner by telephone.

**12.6.5** The Contracting Authority, Owner, A/E, or Contractor may, by written notice given hereunder, designate addresses, telephone numbers, email addresses, or facsimile numbers to which notices, certificates, requests, or communications shall be sent.

## 12.7 Taxes

**12.7.1** Only those materials that ultimately become a part of the completed structure or improvement that constitutes the Project shall be exempt from state sales tax and state use tax.

**12.7.2** The purchase, lease, or rental of material, equipment, parts, or expendable items as concrete form lumber, tools, oils, greases, and fuels, which are used in connection with the Work, are subject to the application of state sales tax and state use tax.

## 12.8 Computing Time

**12.8.1** When the Contract Documents refer to a period of time by a number of days, the period shall be computed to exclude the first and include the last day of the period. If the last day of the period falls on a Saturday, Sunday, or a legal holiday, that day shall be omitted from the computation and the period shall end on the next succeeding day that is not a Saturday, Sunday, or legal holiday.

**12.8.2** Except as excluded under **Section 12.8.1**, the Contract Times and all other periods referred to in the Contract Documents includes Saturdays, Sundays, and all days defined as legal holidays by **Section 12.8.4**.

**12.8.3** The standard workdays for State projects are Monday through Friday, excluding legal holidays.

**12.8.4** Legal holidays are as follows:

**12.8.4.1** New Year's Day – First Day in January;

**12.8.4.2** Martin Luther King Jr. Day – Third Monday in January;

**12.8.4.3** Washington-Lincoln (President's) Day – Third Monday in February;

**12.8.4.4** Memorial Day – Last Monday in May;

**12.8.4.5** Independence Day – Fourth day of July;

**12.8.4.6** Labor Day – First Monday in September;

**12.8.4.7** Columbus Day – Second Monday in October;

**12.8.4.8** Veterans' Day – Eleventh Day of November;

**12.8.4.9** Thanksgiving Day – Fourth Thursday of November; and

**12.8.4.10** Christmas Day – Twenty-fifth day of December.

**12.8.5** If a legal holiday falls on a Saturday, it is observed on the preceding Friday. If a legal holiday falls on a Sunday, it is observed on the following Monday.

## 12.9 Time of the Essence

**12.9.1** Time limits stated in the Contract Documents are of the essence of the Contract and all obligations under the Contract. By signing the Agreement, the Contractor acknowledges that the Contract Times are reasonable, taking into consideration the usual weather and other conditions prevailing in the locality of the Project. By signing the Construction Schedule, the Contractor acknowledges that the specified Milestone dates are reasonable, taking into consideration the usual weather and other conditions prevailing in the locality of the Project.

**12.9.1.1** The Notice to Proceed establishes the date for commencement of the Work.

**12.9.1.2** The Contractor acknowledges that the Owner has entered into, or may enter into, agreements for use of all or part of the premises where the Work is to be completed based upon the Contractor achieving Contract Completion within the associated Contract Time.

**12.9.1.3** The Contractor shall perform the Work in a reasonable, efficient, and economical sequence, and in the order and time as provided in the Construction Progress Schedule.

**12.9.1.4** The Contractor acknowledges that it may be subject to interference, disruption, hindrance, or delay in the progress of the Work from any cause. The sole remedy for such interference, disruption, hindrance, or delay shall be an extension of the Contract Times under **Article 8**, unless otherwise required by ORC Section 4113.62.

## 12.10 Successors and Assigns

**12.10.1** The Contracting Authority and Contractor each bind themselves, their successors, assigns, and legal representatives, to the other party to this Contract and to the successors, assigns, and legal representatives of the other party with respect to all terms of this Contract.

**12.10.2** The Contracting Authority and Contractor each acknowledge that the Owner is an intended third-party beneficiary of this Contract.

**12.10.3** The Contractor shall not assign, or transfer any right, title, or interest in this Contract without the Contracting Authority's prior written consent.

## 12.11 Extent of Contract

**12.11.1** Entire Contract. The Contract Documents represent the entire and integrated agreement between the Contracting Authority and Contractor and supersede all prior negotiations, representations, or agreements, either written or oral.

**12.11.2** Multiple Counterparts. This Contract may be executed in any number of counterparts, each of which shall be regarded as an original and all of which shall constitute but one and the same instrument.

**12.11.3** Captions. The captions and headings in this Contract are for convenience only and in no way define, limit, or describe the scope or intent of any provisions or sections hereof.

**12.11.4** Precedence. If there are any inconsistencies between the provisions of the Contract Documents and the provisions of the Contract, the provisions of this Contract shall prevail.

## 12.12 Severability

**12.12.1** If any term or provision of this Contract or the application thereof to any Person or circumstance, is finally determined to be invalid or unenforceable by a court of competent jurisdiction, the remainder of this Contract or the application of such term or provision to other Persons or circumstances, shall not be affected thereby, and each term and provision of this Contract shall be valid and enforced to the fullest extent permitted by Applicable Law.

## 12.13 Electronic and Facsimile Signatures

**12.13.1** Any party hereto may deliver a copy of its counterpart signature page to this Contract via electronic signature software, fax, e-mail, or web-based project management software. Each party hereto shall be entitled to rely upon an electronic, scanned, or facsimile signature of any other party delivered in such a manner as if such signature were an original.

## 12.14 No Third-Party Interest

**12.14.1** Except as expressly provided under **Sections 6.2.3** through **6.2.5** and **Section 12.10.2, (1)** no person or entity, other than the Contracting Authority and Contractor, will have any right or interest under the Contract, and **(2)** the Contract does not create a contractual relationship of any kind between any people or entities other than the Contracting Authority and Contractor.

## 12.15 Ohio Retirement System

**12.15.1** All individuals employed by the Contractor that provide personal services to the Contracting Authority or Owner are not public employees for the purposes of ORC Chapter 145, as amended.

**12.15.2** If the Contractor is a PERS retirant, as defined by ORC Section 145.38, the Contractor shall notify the Contracting Authority of such status in writing prior to commencement of Work. The Contracting Authority, Owner, or State is not responsible for changes to the Contractor's retirement benefits resulting from entering into this Contract.

## 12.16 No Waiver

**12.16.1** The failure of the Contracting Authority or Contractor to insist in any one or more instances upon the strict performance of any one or more of the provisions of the Contract or to exercise any rights under the Contract or provided by law will not be construed as a waiver or relinquishment of that provision or right or of the right to subsequently demand strict performance or exercise the right and the rights will continue unchanged and remain in full force and effect.

## 12.17 Rights and Remedies

**12.17.1** The duties, obligations, rights, and remedies under the Contract are in addition to and not a limitation of the duties, obligations, rights, and remedies otherwise imposed by or available under Applicable Law.

## 12.18 Survival of Obligations

**12.18.1** All representations, indemnity obligations, warranties, guarantees, and necessarily continuing obligations under the Contract, will survive final payment, completion and acceptance of the Work, and termination or completion of the Contract.

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**END OF DOCUMENT**

**SECTION 01 10 00 - SUMMARY****PART 1 - GENERAL**

## 1.1 SUMMARY

- A. This Section includes the following:
1. Work covered by the Contract Documents.
  2. Work under other contracts.
  3. Use of premises.
  4. Owner's occupancy requirements.
  5. Specification formats and conventions.

## 1.2 WORK COVERED BY CONTRACT DOCUMENTS

- A. Project Identification: **New Lebanon Schools - Softball Building**  
 1. Project Location: New Lebanon Schools  
 Adjacent to Varsity Softball Field  
 1150 W Main St  
 New Lebanon OH 45345
- B. Owner: **New Lebanon Local Schools Board of Education**  
 1. Owner's Representative: Dr. Greg Williams  
 1150 W Main St  
 New Lebanon OH 45345
- C. Architect: **Andrew Circle Architect LLC**  
 320 E Main St  
 Troy OH 45373
- D. The Work consists of a new softball storage / utility building to house a storage room, concessions, a single-user restroom and a second floor pressbox.
1. The Work consists of minor site & landscape, building construction, plumbing, minor HVAC and electrical.
  2. The Work includes, but is not limited to concrete foundations and slabs, masonry, interior rough and finish carpentry, thermal insulation, hollow metal doors and frames, carpeting, interior painting, rolling grilles and vinyl windows.

## 1.3 WORK UNDER OTHER CONTRACTS

- A. General: Cooperate fully with separate contractors so work on those contracts may be carried out smoothly, without interfering with or delaying work under this Contract. Coordinate the Work of this Contract with work performed under separate contracts.
1. Pre-engineered Aluminum Bleachers provided by Owner, installed by GC. GC work also includes coordination and installation of concrete footings located at aluminum bleachers.
  2. Bleacher specification: Belson BEL-005 Elevated Aluminum Bleachers, 21' long, by Belson Outdoors, 627 Amersale Drive, Naperville IL 60563. Phone: 1-800-323-5664. Email: sales@belson.com.

## 1.4 COORDINATION

- A. See Document 00 72 13 General Conditions Article 6, Construction and Closeout, Paragraph 6.2 Responsibilities of the Contractor, for requirements.

## 1.5 PROJECT SUPERINTENDENT

- A. Project Superintendent: Full-time Project Superintendent shall be experienced in administration and supervision of building construction, including mechanical and electrical work.
- B. See Document 00 72 13 General Conditions Article 6, Construction and Closeout, Paragraph 6.2, Responsibilities of the Contractor, for requirements.

## 1.6 USE OF PREMISES

- A. General: Contractor shall have limited use of premises for construction operations as indicated on Drawings by the Contract limits.
- B. Use of Site: Limit use of premises to areas within the Contract limits indicated. Do not disturb portions of Project site beyond areas in which the Work is indicated. Coordinate location of site fencing and site access with Owner.
- C. Access and Security: Contractor will be required to maintain secure access to the site at all times during the construction period.

## 1.7 SPECIFICATION FORMATS AND CONVENTIONS

- A. Specification Format: The Specifications are organized into Divisions and Sections using the 48-division format and CSI's "MasterFormat 2012" numbering system.
  - 1. Division 1: Sections in Division 1 govern the execution of the Work of all Sections in the Specifications.
- 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 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.

Bid Set

NEW LEBANON SCHOOLS  
SOFTBALL BUILDING

**PART 2 - PRODUCTS (Not Used)**

**PART 3 - EXECUTION (Not Used)**

**END OF SECTION 01 10 00**

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**SECTION 01 15 00 - SCHEDULING AND PHASING**

**PART 1 - GENERAL**

1.1 SUMMARY

- A. This Section includes the following:
  - 1. Scheduling
  - 2. Key Start and Completion Dates

1.2 SCHEDULING

- A. The Construction Progress Schedule shall be developed, updated, and used as described in General Conditions Article 6.5.
- B. The General Contractor shall be the Schedule Manager and shall be responsible for the Construction Progress Schedule.

1.3 PHASING

- A. Single Phase Construction:
  - 1. The Owner expects to issue a Notice to Proceed on or around Thursday, December 12, 2024.
  - 2. All areas of construction will be available to the contractor on Thursday, December 12, 2024.
  - 3. Start On-Site Construction: Thursday, December 12, 2024.
  - 4. Substantial Completion of all work: Friday, April 18, 2025. (127 days from Notice to Proceed.)
  - 5. Final Completion of all work: Friday, May 2, 2025
- B. Final Completion of all work shall include resolution and completion of punch list items.
- C. Work Hours:
  - 1. As determined by GC.
- D. Utility Service Interruptions: When existing utility services (water, electricity, gas) are required to be interrupted to facilitate the construction, the Contractor shall give a notice to the Owner of 72 hours minimum prior to the service interruption.

**PART 2 - PRODUCTS (Not Used)**

**PART 3 - EXECUTION (Not Used)**

**END OF SECTION 01 15 00**

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**SECTION 01 23 00 - ALTERNATES****PART 1 - GENERAL**

## 1.1 SUMMARY

- A. This Section includes administrative and procedural requirements for alternates.

## 1.2 DEFINITIONS

- A. Alternate: 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 Owner decides to accept a corresponding change either in 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 Contract Sum to incorporate alternate into the Work. No other adjustments are made to the Contract Sum.

## 1.3 PROCEDURES

- A. Coordination: Modify or adjust affected adjacent work as necessary to completely integrate work of the alternate into 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 as part of alternate.
- B. Notification: Immediately following award of the Contract, notify each party involved, in writing, of the status of each alternate. Indicate if 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.
- D. Schedule: A Schedule of Alternates is included at the end of this Section. Specification Sections referenced in schedule contain requirements for materials necessary to achieve the work described under each alternate.

**PART 2 - PRODUCTS (Not Used)****PART 3 - EXECUTION**

## 3.1 SCHEDULE OF ALTERNATES

- A. Alternate 1: Install Concrete Paving in place of Asphalt Paving as indicated in the site plan on Cover Sheet G101.

**END OF SECTION 01 23 00**

**SECTION 01 26 00 - CONTRACT MODIFICATION PROCEDURES****PART 1 - GENERAL**

## 1.1 SUMMARY

- A. This Section specifies administrative and procedural requirements for handling and processing Contract modifications.
- B. This Section supplements Document 00 72 13 General Conditions Article 7, Modifications.

## 1.2 MINOR CHANGES IN THE WORK

- A. Architect will issue supplemental instructions authorizing Minor Changes in the Work, not involving adjustment to the Contract Sum or the Contract Time, on OFCC Change Directive form.

## 1.3 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. Quotation to be submitted on OFCC standard Change Order Estimate Summary form.
- 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 Architect.
  - 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. Submit a quotation estimating cost adjustments to the Contract Sum and the Contract Time necessary to execute the change. Quotation to be submitted on OFCC standard Change Order Estimate Summary form.

## 1.4 CHANGE ORDER PROCEDURES

- A. On Owner's approval of a Proposal Request, Architect will issue a Change Order for signatures of Owner and Contractor on OFCC Change Order form.

## 1.5 CHANGE DIRECTIVE

- A. Change Directive: Architect may issue a Field Work Order on OFCC standard change directive form. Change Directive instructs Contractor to proceed with a change in the Work, for subsequent inclusion in a Change Order.

1. 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 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 01 26 00**

**SECTION 01 31 00 - PROJECT MANAGEMENT AND COORDINATION****PART 1 - GENERAL**

## 1.1 SUMMARY

- A. This Section includes administrative provisions for coordinating construction operations on Project including, but not limited to, the following:
1. Coordination Drawings.
  2. Project meetings.
  3. Requests for Interpretation (RFI's).

## 1.2 DEFINITIONS

- A. Refer to Document 00 71 00 for Contracting Definitions

## 1.3 COORDINATION

- A. Coordination: Coordinate construction operations included in different Sections of the Specifications to ensure efficient and orderly installation of each part of the Work. Coordinate construction operations, included in different Sections, that depend on each other for proper installation, connection, and operation. See Document 00 72 13 General Conditions, Article 6 Construction and Closeout for information regarding Construction Coordination.
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.
  4. Where availability of space is limited, coordinate installation of different components to ensure maximum performance and accessibility for required maintenance, service, and repair of all components, including mechanical and electrical.
- B. 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.
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. Preinstallation conferences.
  7. Project closeout activities.

## 8. Startup and adjustment of systems.

- D. Conservation: The Contractor shall 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. Refer to other Sections for disposition of salvaged materials that are designated as Owner's property.
- E. Conservation: The Contractor shall 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. Refer to other Sections for disposition of salvaged materials that are designated as Owner's property.

## 1.4 CONSTRUCTION PROGRESS SCHEDULE

- A. See Document 00 72 13 Article 6 Construction and Closeout, Paragraph 6.5 Construction Progress Schedule, for information regarding the Construction Progress Schedule.
- B. Within seven days of the Notice to Proceed, the General Contractor shall prepare a construction progress schedule covering all divisions of the work and shall submit copies of this schedule to each subcontractor. Each subcontractor shall, within seven days of receipt of the General Contractor's schedule, revise the main schedule, and resubmit to the General Contractor. The General Contractor will incorporate these revisions into the original schedule. The final CPM Construction Schedule shall be submitted to the Architect not more than thirty (30) days after the Notice to Proceed. Following approval by the Owner, copies of the final schedule shall be distributed to all interested parties.

## 1.5 PROJECT MEETINGS

- A. Preconstruction Meeting: The Owner will schedule a preconstruction meeting after the award of contract.
1. Attendees: Authorized representatives of Owner, the Architect, and their consultants and Each Prime Contractor and its superintendent are required to attend; other concerned parties may attend. All participants at the conference shall be familiar with Project and authorized to conclude matters relating to the Work.
  2. Agenda: The Architect will prepare an agenda for the preconstruction meeting.
  3. Minutes: The Architect will record and distribute meeting minutes.
- B. Job Progress Meetings:
1. See Document 00 72 13 Article 6 Construction and Closeout, Paragraph 6.6 Progress Meetings, for information regarding the progress meetings.
- C. Coordination Meetings: The General Contractor shall conduct weekly coordination meetings at the Project site. Refer to Document 00 72 13 General Conditions, Article 6 Construction and Closeout, Paragraph 6.7 Project Coordination.
1. Attendees: Subcontractors, installer and representatives of manufacturers and fabricators involved in the project its coordination or integration with other materials and installations that have preceded or will follow, shall attend the meetings. Advise Architect 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:

3. Record significant conference discussions, agreements, and disagreements, including required corrective measures and actions.
4. Reporting: Distribute minutes of the meeting to each party present and to parties who should have been present.
5. Initiate whatever actions are necessary to resolve impediments to performance of the Work.

#### 1.6 REQUESTS FOR INTERPRETATION

- A. Refer to Document 00 72 13 General Conditions, Article 6 Construction and Closeout, Paragraph 6.9 for information regarding the review of contract documents and field conditions.
- B. The Contractor, Owner, or other party may submit to the Architect a formal request for interpretation or clarification of the contract documents via a Request for Interpretation (RFI).
  1. Submit the RFI on the Contractor's standard form. Include drawings, descriptions, measurements, photos, Product Data, Shop Drawings, and other information necessary to fully describe items needing interpretation.
- C. Architect's Action: Architect will review each RFI, determine action required, and return it within three (3) business days.
  1. An RFI will be returned without action for the following reasons:
    - a. Requests for approval of submittals.
    - b. Requests for approval of substitutions.
    - c. Requests for coordination information already indicated in the Contract Documents.
    - d. Requests for adjustments in the Contract Time or the Contract Sum.
    - e. Requests for interpretation of Architect's actions on submittals.
    - f. An incomplete RFI or an RFI with numerous errors.
  2. The Architect's action may include a request for additional information, in which case Architect's time for response will start again.
  3. The Architect's action on an RFI that may result in a change to the Contract Time or the Contract Sum may be eligible for Contractor to submit Change Proposal. See General Conditions Paragraph 7.2.3 for additional requirements.
- D. On receipt of Architect's action, update the RFI log and immediately distribute the RFI response to affected parties. Review response and notify Architect within seven days if Contractor disagrees with response.

#### **PART 2 - PRODUCTS (Not Used)**

#### **PART 3 - EXECUTION (Not Used)**

**END OF SECTION 01 31 00**

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**SECTION 01 33 00 - SUBMITTAL PROCEDURES****PART 1 - GENERAL**

## 1.1 SUMMARY

- A. This Section includes administrative and procedural requirements for submitting Shop Drawings, Product Data, Samples, Certificates, and other submittals for all prime contractors.
- B. This Section supplements Document 00 72 13 General Conditions Article 6 Construction and Closeout, Paragraph 6.20, Action Submittals.

## 1.2 SUBMITTAL PROCEDURES

- A. Identification: Place a permanent label or title block on each submittal for identification. Identify project, contractor, subcontractor and supplier; pertinent drawing and detail number, and specification section number, appropriate to submittal.
- B. Resubmittals: Identify changes made since prior submission.
- C. Transmittal: Package each submittal individually and appropriately for transmittal and handling. Transmit each submittal using a transmittal form.
- D. Distribution: Furnish copies of final submittals to manufacturers, subcontractors, suppliers, fabricators, installers, authorities having jurisdiction, and others as necessary for performance of construction activities. Show distribution on transmittal forms.
- E. Use for Construction: Use only final submittals with mark indicating action taken by Architect/Engineer in connection with construction.

## 1.3 CONTRACTOR'S USE OF ARCHITECT/ENGINEER'S CAD FILES

- A. See Document 00 72 13 General Conditions, Article 10 Bonds, Insurance, and Indemnification, Paragraph 10.7 for additional information regarding the use of electronic files.
- B. General: At Contractor's written request, copies of Architect/Engineer's CAD files will be provided to Contractor for Contractor's use in connection with Project, subject to the following conditions:
  - 1. Only files that already exist will be provided. Only plan-related files will be provided. Files will be sent "bare", i.e., without notes, dimensions, material indications, etc., for use a background drawings only.
  - 2. Consultant Files: See PME specification for use of Consultant's files.
  - 3. Files will be provided only in AutoCad 2013 format or Architect's current format.
  - 4. Contractor's use of files is limited to this project; drawings may not be reproduced or used on other projects.

**PART 2 - PRODUCTS**

## 2.1 PRODUCT DATA

- A. General: Prepare and submit product Data Submittals required by individual Specification Sections.
  - 1. Information pertinent to the project shall be circled, highlighted, underlined or otherwise made to stand out, to clearly indicate to the Architect/Engineer only pertinent information. Non-conforming and non-pertinent information shall be crossed-out or indicated as not applicable.
- 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. Manufacturer's catalog cuts.
    - e. Wiring diagrams showing factory-installed wiring.
    - f. Compliance with recognized trade association standards.
    - g. Compliance with recognized testing agency standards.

## 2.2 SHOP DRAWINGS

- A. General: Prepare and submit Shop Drawing Submittals required by individual Specification Sections.
- B. Shop Drawings: Prepare Project-specific information, drawn accurately to scale. Do not base Shop Drawings on reproductions of the Contract Documents or standard printed data.
  - 1. Preparation: 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. Notation of coordination requirements.
    - j. 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 24 x 36 inches.

## 2.3 SAMPLES

- A. General: Prepare and submit product Data Submittals required by individual Specification Sections.

- B. Samples: Prepare physical units of materials or products, including the following:
1. Samples for Initial Selection: Submit manufacturer's color charts consisting of units or sections of units showing the full range of colors, textures, and patterns available.
    - a. Submit two full sets of available choices where color, pattern, texture, or similar characteristics are required to be selected from manufacturer's product line. Architect/Engineer will return submittal with options selected.
  2. Samples for Verification: Submit full-size units or Samples of size indicated, prepared from the same material to be used for the Work, 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, partial sections of manufactured or fabricated components; small cuts or containers of materials; complete units of repetitively used materials; swatches showing color, texture, and pattern; color range sets; and components used for independent testing and inspection.
    - a. Submit three sets of Samples. Architect/Engineer will retain one Sample sets; remainder will be returned.
  3. Preparation: Mount, display, or package Samples in manner specified to facilitate review of qualities indicated. Prepare Samples to match Architect/Engineer's sample where so indicated. Attach label on unexposed side.
  4. 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.
  5. Disposition: Maintain sets of approved Samples at Project site, available for quality-control comparisons throughout the course of construction activity. Sample sets may be used to determine final acceptance of construction associated with each set.

## 2.4 OTHER SUBMITTALS

- A. Application for Payment: Comply with requirements in Document 00 72 13 General Conditions, Article 9, Compensation and Payment.
- B. Schedule of Values: Comply with requirements in Document 00 72 13 General Conditions, Article 9, Compensation and Payment, Paragraph 9.3. Include the following percentages as a part of the Schedule of Values:
- C. 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. Comply with requirements in Document 00 72 13 General Conditions, Article 4 Subcontractors.
- D. 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 Architect/Engineers and owners, and other information specified.
- E. Insurance Certificates and Bonds: Prepare written information as required by Document 00 21 13 Instructions to Bidders Article 6.1 and the 00 72 13 General Conditions, Article 11. Contract Suspension and Termination

## 2.5 TEST REPORTS

- A. 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.

- B. 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.
- C. 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.

## 2.6 CERTIFICATES

- A. Certificates and Certifications Submittals: Submit a statement that includes signature of entity responsible for preparing certification. Certificates and certifications shall be signed by an officer or other individual authorized to sign documents on behalf of that entity. Provide a notarized signature where indicated.
- B. Insert definition of Contractor certificates here if required by individual Specification Sections. See the Evaluations.
- C. Installer Certificates: Submit written statements on manufacturer's letterhead certifying that Installer complies with requirements in the Contract Documents and, where required, is authorized by manufacturer for this specific Project.
- D. Manufacturer Certificates: Submit written statements on manufacturer's letterhead certifying that manufacturer complies with requirements in the Contract Documents. Include evidence of manufacturing experience where required.
- E. Material Certificates: Submit written statements on manufacturer's letterhead certifying that material complies with requirements in the Contract Documents.
- F. Product Certificates: Submit written statements on manufacturer's letterhead certifying that product complies with requirements in the Contract Documents.
- G. Welding Certificates: Prepare written certification that welding procedures and personnel comply with requirements in the Contract Documents. Submit record of Welding Procedure Specification and Procedure Qualification Record on AWS forms. Include names of firms and personnel certified.

## 2.7 MANUFACTURER'S INSTRUCTIONS

- A. Maintenance Data: Prepare written and graphic instructions and procedures for operation and normal maintenance of products and equipment. Comply with requirements in Section 01 77 00 Closeout Procedures.
- B. 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.
- C. 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 manufacturer.

- D. Manufacturer's Field Reports: Prepare written information documenting factory-authorized service representative's tests and inspections.

### **PART 3 - EXECUTION**

#### **3.1 CERTIFICATION REQUIRED FROM SUPPLIERS AND INSTALLERS**

- A. The following is a list of certifications and other submittals required, in addition to guarantees, to assure quality materials or workmanship, or both.
1. General Construction:
    - a. Sealants: Experience record of the contractor or subcontractor doing the work
    - b. Carpet Materials: Test Reports and Manufacturer's Certificate
    - c. Painting: Statements by paint manufacturer and applicator
  2. Heating, Ventilating, and Air Conditioning:
    - a. Balancing of Air and Water Systems: Balance Reports
    - b. Fan Ratings: Test Performance for seals, performance curves
    - c. Air, water, and steam lines: Test Reports
    - d. Welders: Copy of certification

#### **3.2 CONTRACTOR'S REVIEW**

- A. Review each submittal and check for compliance with the Contract Documents. Note corrections and field dimensions. Mark with approval stamp, and with handwritten approval signature before submitting to Architect/Engineer.
- B. 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.

#### **3.3 ARCHITECT/ENGINEER'S ACTION**

- A. General: Architect/Engineer will not review submittals that do not bear Contractor's approval stamp and signature, and will return them without action.
- B. Architect/Engineer will review each submittal, make marks to indicate corrections or modifications required, and return it. Architect/Engineer will stamp each submittal with an action stamp and will mark stamp appropriately to indicate action taken.
- C. Submittals not required by the Contract Documents will not be reviewed and may be discarded.

### **END OF SECTION 01 33 00**

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**SECTION 01 40 00 - QUALITY REQUIREMENTS****PART 1 - GENERAL**

## 1.1 SUMMARY

- A. Section includes administrative and procedural requirements for quality assurance and quality control.

## 1.2 DEFINITIONS

- A. Quality-Assurance Services: Activities, actions, and procedures performed before and during execution of the Work to guard against defects and deficiencies and substantiate that proposed construction will comply with requirements.
- B. Quality-Control Services: Tests, inspections, procedures, and related actions during and after execution of the Work to evaluate that actual products incorporated into the Work and completed construction comply with requirements.
- C. Installer/Applicator/Erector: Contractor or another entity engaged by Contractor as an employee, Subcontractor, or Sub-subcontractor, to perform a particular construction operation, including installation, erection, application, and similar operations.
  - 1. Use of trade-specific terminology in referring to a trade or entity does not require that certain construction activities be performed by accredited or unionized individuals, or that requirements specified apply exclusively to specific trade(s).
- D. Experienced: When used with an entity or individual, "experienced" means having successfully completed a minimum of five previous projects similar in nature, size, and extent to this Project; being familiar with special requirements indicated; and having complied with requirements of authorities having jurisdiction.

## 1.3 CONFLICTING REQUIREMENTS

- A. Referenced Standards: 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 conflicting requirements that are different, but apparently equal, to Architect for a decision before proceeding.
- B. 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.

## 1.4 QUALITY ASSURANCE

- A. General: Qualifications paragraphs in this article establish the minimum qualification levels required; individual Specification Sections specify additional requirements.

- B. **Manufacturer Qualifications:** A firm experienced in manufacturing products or systems similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.
- C. **Fabricator Qualifications:** A firm experienced in producing products similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.
- D. **Installer Qualifications:** A firm or individual experienced in installing, erecting, or assembling work similar in material, design, and extent to that indicated for this Project, whose work has resulted in construction with a record of successful in-service performance.
- E. **Manufacturer's Representative Qualifications:** An authorized representative of manufacturer who is trained and approved by manufacturer to observe and inspect installation of manufacturer's products that are similar in material, design, and extent to those indicated for this Project.

#### 1.5 QUALITY CONTROL

- A. **Testing:**
  - 1. The Architect/Engineer shall be responsible for providing testing and inspection services as described in Document 00 72 13 General Conditions, Article 3 Architect/Engineer's Responsibilities, Paragraph 3.3 Testing and Inspection Services.
  - 2. The Contractor shall be responsible for additional test and inspections as described in Document 00 72 13 General Conditions, Article 6.8 Additional Tests and Inspections.
- B. **Manufacturer's Field Services:** Where indicated, engage a manufacturer's representative to observe and inspect the Work. Manufacturer's representative's services include examination of substrates and conditions, verification of materials, inspection of completed portions of the Work, and submittal of written reports.

### **PART 2 - PRODUCTS (Not Used)**

### **PART 3 - EXECUTION**

#### 3.1 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 Specification Sections or matching existing substrates and finishes. Restore patched areas and extend restoration into adjoining areas with durable seams that are as invisible as possible. Comply with the Contract Document requirements for cutting and patching in Section 01 73 00 Execution.
- B. Protect construction exposed by or for quality-control service activities.
- C. Repair and protection are Contractor's responsibility, regardless of the assignment of responsibility for quality-control services.

**END OF SECTION 01 40 00**

**SECTION 01 50 00 - TEMPORARY FACILITIES AND CONTROLS****PART 1 - GENERAL**

## 1.1 SUMMARY

- A. This Section includes requirements for temporary facilities and controls, including temporary utilities, support facilities, and security and protection facilities.
- B. Related Documents
  - 1. Document 00 72 13 General Conditions, Article 6 Construction and Closeout, Paragraph 6.14 Construction Facilities, Utilities, and Equipment.

## 1.2 USE OF EXISTING SERVICES

- A. Electric Power Service: Use electric power from Owner's existing system without metering and without payment of use charges. Provide connections and extensions of services as required for construction operations.

## 1.3 TEMPORARY UTILITIES

- A. General Contractor shall provide, maintain, and pay for all temporary facilities noted in this section.

## 1.4 PROJECT CONDITIONS

- 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 service shall assume responsibility for operation, maintenance, and protection of each permanent service during its use as a construction facility before Owner's acceptance, regardless of previously assigned responsibilities.
- 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: Provide new materials. Undamaged, previously used materials in serviceable condition may be used if approved by Architect/Engineer. Provide materials suitable for use intended.
- B. Water: Potable.

## 2.2 TEMPORARY FACILITIES

- A. General Contractor Field Office: General contractor shall provide a plan table and a file where shop drawings and specifications will be kept for the duration of the project. Contractor and Owner will determine a location inside the building for use as a construction office once building is substantially constructed.
- B. Storage: Available outdoor staging space is will be coordinate with Owner. Contractor shall determine staging and storage needs, and review proposed locations with the Owner. Contractor is required to contact Owner as use of any paved area outside the bounds of the construction fence.
- C. Sanitary Facilities:
  - 1. The use of existing restroom facilities by the contractor is not permitted.
  - 2. Provide temporary toilets and fixtures. Comply with authorities having jurisdiction for type, number, location, operation, and maintenance of facilities. Maintain all sanitary facilities in clean and weathertight condition.
    - a. Provide toilet tissue, paper towels, and similar disposable materials for each facility.
    - b. Install self-contained toilets. Shield toilets to ensure privacy.
  - 3. Drinking Water
    - a. Provide drinking water and paper cups for use of construction personnel.

## 2.3 EQUIPMENT

- A. Fire Extinguishers: Hand carried, portable, UL rated. Provide class and extinguishing agent as required by location and classes of fire exposures.

## PART 3 - EXECUTION

### 3.1 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. No additional space is available beyond the limits of the construction area.

### 3.2 TEMPORARY UTILITY INSTALLATION

- A. Water Service: Use of Owner's existing water service facilities will be permitted, as long as facilities are cleaned and maintained in a condition acceptable to Owner. At Substantial Completion, restore these facilities to condition existing before initial use.
- B. Electric Power Service: Use of Owner's existing electric power service will be permitted, as long as equipment is maintained in a condition acceptable to Owner.
  - 1. Comply with NECA, NEMA, and UL standards and regulations for temporary electric service. Install service to comply with NFPA 70.
- C. Lighting: Provide temporary lighting with local switching that provides adequate illumination for construction operations, observations, inspections, and traffic conditions.
  - 1. Install and operate temporary lighting that fulfills security and protection requirements without operating entire system.

## 3.3 SUPPORT FACILITIES INSTALLATION

- A. Storage: No storage or staging area is available on site.
- B. Dumpster: The General Contractor may set one dumpster on the site – coordinate location w/ Owner. Provide waste-collection containers in sizes adequate to handle waste from construction operations. Comply with requirements of authorities having jurisdiction.

## 3.4 ACCESS, PARKING, AND TRAFFIC

- A. Traffic Controls: Comply with requirements of the Owner.
- B. Parking:
  - 1. Contractor parking is available in the lot immediately south of the baseball field, adjacent to the construction site.
- C. Deliveries: Owner must approve and coordinate all deliveries before, during and immediately after school hours.
- D. Site Access: See Site Plan.
  - 1. Contractor is to lay plywood on any pavement and set the dumpster on the plywood to minimize damage to surface if dumpster is located on existing paving.
  - 2. Protect existing site improvements to remain including curbs, pavement, and utilities.
  - 3. Maintain access for fire-fighting equipment and access to fire hydrants.
- E. Site Maintenance:
  - 1. Provide dust-control treatment that is nonpolluting and non-tracking. Reapply treatment as required to minimize dust.

## 3.5 SECURITY AND PROTECTION FACILITIES INSTALLATION

- A. 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.
- B. 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.
- C. Temporary Fire Protection: Install and maintain temporary fire-protection facilities of types needed to protect against reasonably predictable and controllable fire losses. Comply with NFPA 241.
  - 1. Prohibit smoking in all construction areas.
  - 2. Supervise welding operations, combustion-type temporary heating units, and similar sources of fire ignition according to requirements of authorities having jurisdiction.
  - 3. Develop and supervise an overall fire-prevention and -protection program for personnel at Project site. Review needs with local fire department and establish procedures to be followed. Instruct personnel in methods and procedures. Post warnings and information.

## 3.6 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.
- C. Termination and Removal: Remove each temporary facility when need for its service has ended, when it has been replaced by authorized use of a permanent facility, or until the date of final acceptance or beneficial occupancy, whichever comes first. 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.
  - 2. At Substantial Completion, clean and renovate permanent facilities used during construction period. Comply with final cleaning requirements in Division 1 Section "Closeout Procedures."
  - 3. If concrete curbs, sidewalks, or asphalt paving are damaged within the area of construction or in the area of deliveries or dumpster location, they shall be repaired by the Contractor to match original conditions and using materials identical to original construction.

**END OF SECTION 01 50 00**

**SECTION 01 60 00 - PRODUCT REQUIREMENTS****PART 1 - GENERAL**

## 1.1 SUMMARY

- A. This Section includes administrative and procedural requirements for selecting products for use in Project; product delivery, storage, and handling; manufacturers' standard warranties on products; special warranties; product substitutions; and comparable products.
- B. See Divisions 2 through 28 specification sections for specific requirements for warranties on products and installations specified to be warranted.

## 1.2 PRODUCTS

- A. Provide the necessary quantity of each specified or required product, material, or equipment from a single source. Where not possible to do so, match separate procurements as closely as possible. When the selection process is under the Contractor's control, he shall provide compatible products, materials and equipment. Where available and complying with requirements, provide products which have been used successfully in similar applications, and which are recommended by manufacturers for applications indicated.
- B. All bidders are cautioned to bid this project in strict conformance with the drawings and specifications. Unless alternate manufacturers and/or materials have been approved by the Architect/Engineer by Addendum, no other materials or manufacturers will be accepted.
- C. Products used in this project shall not contain asbestos or PCB's. The installation of ACRM or any asbestos containing products on Owner projects is prohibited.

## 1.3 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.
- B. Products specified by Reference Standards or by Description only: Provide any product meeting those standards or descriptions.
- C. Products Specified by Naming One or More manufacturers: Provide products of one of the Manufacturers named and meeting the specifications. No Substitutions unless approved during the bid period. See Document 00 21 13 Instructions to Bidders, Article 2.4 and 2.5 and Document 00 72 13 General Conditions, Article 6 for additional information.

- D. Basis-of-Design Product: Where Specifications name a product, or refer to a product indicated on Drawings, and include a list of manufacturers, provide the specified or indicated product or a comparable product by one of the other named manufacturers. Drawings and Specifications indicate sizes, profiles, dimensions, and other characteristics that are based on the product named.

#### 1.4 SUBSTITUTIONS AFTER THE BID PERIOD

- A. See Document 00 72 13 General Conditions, Article 6 Construction and Closeout, Paragraph 6.11 for information regarding substitutions after bid opening.
- B. Failure by the Contractor to properly order the specified products or materials in a timely manner will not be grounds for acceptance of a substitution.
- C. Contractor's request for substitution shall be reasonable, timely, and fully documented, including product data, samples, detailed performance comparisons and evaluations, testing laboratory reports, coordination information for effect on other work and schedule, cost information, and similar information as deemed appropriate or as requested by the Architect/Engineer.
- D. Architect/Engineer's Action: If necessary, Architect/Engineer will request additional information or documentation for evaluation within one week of receipt of a request for substitution. Architect/Engineer 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 change order will be written if a proposed substitution is accepted.

#### 1.5 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.
  - 1. Schedule delivery to minimize long-term storage at Project site and to prevent overcrowding of construction spaces.
  - 2. 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.
  - 3. 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.
  - 4. Inspect products on delivery to ensure compliance with the Contract Documents and to ensure that products are undamaged and properly protected.
  - 5. Store products to allow for inspection and measurement of quantity or counting of units.
  - 6. Store materials in a manner that will not endanger Project structure.
  - 7. Store products that are subject to damage by the elements, under cover in a weathertight enclosure above ground, with ventilation adequate to prevent condensation.
  - 8. Comply with product manufacturer's written instructions for temperature, humidity, ventilation, and weather-protection requirements for storage.
  - 9. Protect stored products from damage.

1.6 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 2 through 16 Sections for specific content requirements and particular requirements for submitting special warranties.

**PART 2 - PRODUCTS (Not Used)**

**PART 3 - EXECUTION (Not Used)**

**END OF SECTION 01 60 00**

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**SECTION 01 73 00 - EXECUTION****PART 1 - GENERAL**

## 1.1 SUMMARY

- A. This Section includes general procedural requirements governing execution of the Work including, but not limited to, the following:
  - 1. General installation of products.
  - 2. Progress cleaning.
  - 3. Starting and adjusting.
  - 4. Protection of installed construction.
  - 5. Correction of the Work.

**PART 2 - PRODUCTS (Not Used)****PART 3 - EXECUTION**

## 3.1 EXAMINATION

- A. Existing Conditions: The existence and location of 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.
- B. Refer to specification sections for particular requirements for examination of existing conditions prior to the start of the work.

## 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. Review of Contract Documents and Field Conditions: Refer to document 00 72 13, Article 6 Construction and Closeout, Paragraph 6.9 Review of Contract Documents and Field Conditions.

## 3.3 PROGRESS CLEANING

- A. 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.
  - 3. Containerize hazardous and unsanitary waste materials separately from other waste. Mark containers appropriately and dispose of legally, according to regulations.

- B. Site: Maintain Project site free of waste materials and debris.
- C. Work Areas: Clean areas where work is in progress to the level of cleanliness necessary for proper execution of the Work.
  - 1. Remove liquid spills promptly.
  - 2. Where dust would impair proper execution of the Work, broom-clean or vacuum the entire work area, as appropriate.
- D. Installed Work: Keep installed work clean. Clean installed surfaces according to written instructions of manufacturer or fabricator of product installed, using only cleaning materials specifically recommended. If specific cleaning materials are not recommended, use cleaning materials that are not hazardous to health or property and that will not damage exposed surfaces.
- E. Concealed Spaces: Remove debris from concealed spaces before enclosing the space.
- F. Exposed Surfaces in Finished Areas: Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Substantial Completion.
- G. 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.
- H. During handling and installation, clean and protect construction in progress and adjoining materials already in place. Apply protective covering where required to ensure protection from damage or deterioration at Substantial Completion.
- I. Clean and provide maintenance on completed construction as frequently as necessary through the remainder of the construction period. Adjust and lubricate operable components to ensure operability without damaging effects.
- J. Limiting Exposures: Supervise construction operations to 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.
- K. If, in the opinion of the Owner, the Contractor does not keep the project area adequately clean, the Owner will contract separately to have the cleaning done, and will backcharge the Contractor. Backcharges will include administrative and supervisory time spent by Owner staff and by the Architect/Engineer.

**END OF SECTION 01 73 00**

**SECTION 01 77 00 - CLOSEOUT PROCEDURES****PART 1 - GENERAL**

## 1.1 SUMMARY

- A. This Section includes administrative and procedural requirements for contract closeout, including, but not limited to, the following:
  - 1. Inspection procedures.
  - 2. Project Record Documents
  - 3. Final cleaning.
- B. See Document 00 72 13 General Conditions, Article 6, "Construction and Closeout" and Article 9, "Compensation and Payment" for Project close out requirements.
- C. See Divisions 2 through 28 Sections for specific closeout and special cleaning requirements for the Work in those Sections.

## 1.2 FINAL INSPECTION

- A. Prepare Punchlist and final submittals in accordance with Document 00 72 13 General Conditions Article 6.27 Substantial Completion.

## 1.3 STARTING AND ADJUSTING

- A. See Document 00 72 13 General Conditions, Article 6.29 Demonstration and Training, Operating Appurtenances.

## 1.4 PROJECT RECORD DOCUMENTS

- A. See General Conditions Article 6.25 Project Document Maintenance and submittal for required record document submittals.
- B. General: Do not use Project Record Documents for construction purposes. Protect Project Record Documents from deterioration and loss. Provide access to Project Record Documents for Architect/Engineer's reference during normal working hours.
- C. Record Drawings: Maintain one set of Contract Drawings and Shop Drawings. Submit original field marked set of conformed drawings reflecting all as-built conditions.
  - 1. 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 cannot be readily identified and recorded later.
    - b. Record data as soon as possible after obtaining it. Record and check the markup before enclosing concealed installations.
  - 2. 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.

3. Note Change Directive numbers, Change Order numbers, alternate numbers, and similar identification where applicable.
  4. Identify and date each Record Drawing; include the designation "PROJECT RECORD DRAWING" in a prominent location. Organize into manageable sets; bind each set with durable paper cover sheets. Include identification on cover sheets.
- D. Miscellaneous Record Submittals: 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.

## **PART 2 - PRODUCTS – NOT USED**

## **PART 3 - EXECUTION**

### **3.1 FINAL CLEANING**

- A. General:
1. See Document 00 72 13 General Conditions, Construction and Closeout, Article 6.26 Final Cleaning.
  2. 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. 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:
    - 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. Remove tools, construction equipment, machinery, and surplus material from Project site.
    - c. Clean exposed hard-surfaced finishes to a dirt-free condition, free of stains, films, and similar foreign substances. Restore reflective surfaces to their original condition.
    - d. Remove debris and surface dust from limited access spaces, including roofs, plenums, shafts, trenches, equipment vaults, manholes, attics, and similar spaces.
    - e. Sweep concrete floors broom clean in unoccupied spaces.
    - f. Leave Project clean and ready for occupancy.
- C. Comply with safety standards for cleaning. Do not burn waste materials. Do not bury debris or excess materials on Owner 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 01 77 00**

**SECTION 04 22 23 – CONCRETE MASONRY UNITS - BURNISHED****PART 1 - GENERAL**

## 1.1 SUMMARY

- A. This Section includes the following:
  - 1. Burnished Concrete Masonry Units

## 1.2 ACTION SUBMITTALS

- A. Color Samples: Submit color samples for selection from manufacturer's series. Submit product literature, certifications, test reports, full size sample(s) of each color specified or selected.

## 1.3 QUALITY ASSURANCE

- A. Construction: Construct masonry in accordance with requirements of ACI 530 and 530.1.
- B. Special Inspection and Testing: Provide inspection and testing in accordance with the 2024 Ohio Building Code and as noted on Drawings and will be performed under provisions of 01 40 00.
- C. Field Constructed Mock-ups: No new mockup is required. Use New Lebanon Schools Baseball Building as a quality control sample for new Softball building masonry.

## 1.4 DELIVERY, STORAGE &amp; HANDLING

- A. Deliver and handle architectural masonry materials as to prevent damage.
  - 1. Deliver architectural masonry units wrapped and on wood pallets.
  - 2. Cover stacked masonry units with protective waterproof covering that will allow air circulation between blocks and pallets to prevent excessive moisture accumulation.
  - 3. Ground and polished face masonry units to be packaged with protective membrane between block layers to minimize chipping.
- B. Store architectural masonry units in a location as to minimize handling, exposure to excessive moisture, contaminants, corrosion, and materials that could cause staining.
- C. Store mortar materials off the ground with waterproof covering and in a dry location.

## 1.5 PROJECT CONDITIONS

- A. Environmental Requirements – Cold Weather: Follow the requirements for Hot and Cold Weather Construction.
  - 1. When ambient air temperatures are above 40 degrees F cover tops of walls and masonry elements with plastic or canvas at end of workday to prevent water from entering masonry.
  - 2. When ambient air temperatures are below 40 degrees F and above 32 degrees F or temperature of masonry units is below 40 degrees F:

- a. Remove visible ice on masonry units before units are placed in the wall.
  - b. Do not lay masonry units having a temperature below 20 degrees F.
  - c. Heat sand and mixing water to produce mortar temperatures between 40 degrees F and 120 degrees F at the time of mixing.
  - d. Maintain mortar and grout temperatures above freezing until used in masonry.
  - e. Cover tops of walls and masonry elements with weather resistive membrane at end of workday to prevent water from entering masonry.
3. When ambient air temperatures are below 32 degrees F and above 25 degrees F or temperature of masonry units is below 40 degrees F:
    - a. Remove visible ice on masonry units before units are placed in the wall.
    - b. Do not lay masonry units having a temperature below 20 degrees F.
    - c. Heat sand and mixing water to produce mortar temperatures between 40 degrees F and 120 degrees F at the time of mixing.
    - d. Maintain mortar and grout temperatures above freezing until used in masonry.
    - e. Completely cover walls and masonry elements with weather resistive membrane at end of workday and keep covers in place for 24 hours.
  4. When ambient air temperature is below 25 degrees F and above 20 degrees F:
    - a. Remove visible ice on masonry units before units are placed in the wall.
    - b. Do not lay masonry units having a temperature below 20 degrees F.
    - c. Heat sand and mixing water to produce mortar temperatures between 40 degrees F and 120 degrees F at the time of mixing.
    - d. Maintain mortar and grout temperatures above freezing until used in masonry.
    - e. Use heat source on both sides of masonry under construction.
    - f. Install wind breaks when wind velocity is more than 15 mph.
    - g. Completely cover walls and masonry elements with insulated blankets or equivalent protection at end of workday and keep covers in place for 24 hrs.
  5. When ambient air temperature is below 20 degrees F:
    - a. Remove visible ice on masonry units before units are placed in the wall.
    - b. Do not lay masonry units having a temperature below 20 degrees F.
    - c. Heat sand and mixing water to produce mortar temperatures between 40 degrees F and 120 degrees F at the time of mixing.
    - d. Maintain mortar and grout temperatures above freezing until used in masonry.
    - e. Provide an enclosure for the masonry under construction.
    - f. Use heat sources to maintain temperatures above 32 degrees F within the enclosure.
    - g. Maintain masonry temperature above 32 degrees F for 24 hours after construction by enclosure with supplementary heat, electric heating blankets, infrared heat lamps, or other acceptable methods.

## PART 2 - PRODUCTS

### 2.1 MANUFACTURER

- A. Acceptable Manufacturers:
  1. Acceptable Manufacturer: County Materials Corporation, 205 North St. P.O. Box 100, Marathon WI 54448-0100; Tel: 715-848-1365; web: www.countymaterials.com
  2. Substitutions: Not permitted

### 2.2 CONCRETE MASONRY UNITS

- A. Concrete Masonry Units – General

1. Provide concrete masonry standard units as indicated and scheduled with face dimensions of 16 inches long by 8 inches high, nominal; 15-5/8 inches long by 7-5/8 inches high, actual, by thicknesses indicated on drawings.
  2. Nominal 2", 4", 6", 8", 10" and 12" standard block thickness shall be used as required.
  3. Provide special masonry units for bond beams, control and expansion joints, and lintels.
  4. Use solid units at door & window jambs. Return burnished surface to inside face of wall at door & window jambs.
  5. Hollow and solid load-bearing block: ASTM C-90, normal weight, 125 pounds per cubic foot dry weight minimum.
- B. Burnished Masonry Units: County Materials Corporation: all units produced with integral water repellent admixture.
1. Premier Ultra Burnished: Manufactured by County Materials Corporation.
    - a. Description: Normal weight, integrally pigmented load bearing unit
    - b. Compliance: ASTM C90
    - c. Coloring: Integral, Through-body coloring
    - d. Water Repellent: Integral Water Repellent
    - e. Color: Echo (63-251B)
    - f. Finish: Ground face
    - g. *Confirm material match w/ adjacent Baseball Building prior to ordering*

### PART 3 - EXECUTION

#### 3.1 INSPECTION

- A. Prior to the start of masonry construction, the Contractor shall verify:
1. Foundations are constructed with tolerances conforming to ACI 117.
  2. Reinforcing dowels are positioned with accordance with Project Drawings.
  3. Verify items provided by other Sections of the Work are properly sized and located.
- B. If conditions are not met notify the Architect / Owner's Representative.

#### 3.2 PREPARATION

- A. Establish Lines, Levels, and Coursing:
1. Protect lines from disturbance.
  2. Use non-corrosive materials in contact with masonry.
- B. Surface Preparation: Prior to placing masonry units remove, loose aggregate or any other materials that would prevent mortar from bonding to the foundation.

#### 3.3 COURSING AND BONDING

- A. Placement: Place masonry units to lines and level indicated on plans.
- B. Uniformity: Maintain masonry coursing and horizontal joints of uniform width and thickness.
- C. Bond Patterns: Place masonry units in running bond pattern unless otherwise noted on plans.
- D. Course Height: Course one masonry unit and one mortar joint to equal 8 inches (4 inches for 1/2 high units)

## 3.4 PLACING

## A. Bed and Head Joints:

1. Joint Thickness:
  - a. Construct 3/8-inch bed and head joints unless otherwise indicated.
  - b. Construct bed joint at starting course on foundation not less than ¼ inch and not more than ¾ inch.
2. Fill holes not specified in exposed and below grade masonry with mortar.
3. Tool head and bed joints concave unless below grade or above ceiling height and to be concealed.
4. Remove masonry protrusions extending ½ inch or more into cells or cavities to be grouted.

## B. Unit Placement:

1. Lay masonry units with bed and head joints filled from the faces of the units to a distance in not less than the thickness of the face shell.
  - a. Vertical cells to be grouted are aligned and unobstructed openings for grout must be provided in accordance with drawings.
2. Keep cavity airspace and weep holes clean of mortar, clean out promptly if mortar falls into cavity airspace or plugs weep holes.
3. Remove excess mortar
  - a. Protect wall from mud splatter and mortar droppings.
  - b. Place masonry units such that mortar does not run down the face of the wall or smear the masonry face.
4. Adjustments:
  - a. Do not shift or tap masonry units after mortar has taken initial set.
  - b. Where adjustments must be made, remove mortar and replace.
5. Protection: Protect wall cavities during construction to prevent rainwater saturation and excessive moisture accumulation.

## 3.5 TOLERANCES: Erect masonry within the following tolerances from specified dimensions:

## A. Dimension of Elements:

1. In cross-section or elevation: minus 1/4 inch, plus 1/2 inch
2. Mortar joint thickness:
  - a. Bed joints: plus or minus 1/8 inch
  - b. Head joints: plus 3/8 inch to minus 1/4 inch
  - c. Collar joints: plus 3/8 inch to minus 1/4 inch

## B. Elements:

1. Variation from level:
  - a. Bed joints: plus or minus 1/4 inch in 10 feet; plus or minus 1/2 inch maximum
  - b. Top surface of bearing walls: plus or minus 1/4 inch in 10 feet; plus or minus 1/2 inch maximum
2. Variation from plumb: plus or minus 1/4 inch in 10 feet; plus or minus 3/8 inch in 20 feet; plus or minus 1/2 inch max
3. True to line: plus or minus 1/4 inch in 10 feet; plus or minus 3/8 inch in 20 feet; plus or minus 1/2 inch maximum

## C. Location of elements:

1. Indicated in plan: plus or minus 1/2 inch in 20 feet; plus or minus 3/4 inch maximum
2. Indicated in elevation: plus or minus 1/4 inch in story height; plus or minus 3/4" max.

## D. Notification: If the above conditions cannot be met, notify Architect / Owner's Representative.

3.6 ANCHORAGE AND REINFORCING

- A. See structural drawings for reinforcing specifications.

3.7 CLEANING

- A. In-Progress Cleaning: Clean unit masonry as work progresses within seven days by dry brushing to remove excess mortar and smears before tooling joints, as described in section 3.04.B.3.
- B. Final Cleaning: Clean exposed masonry as follows:
  - 1. Clean masonry before installing windows, door, finished flooring, metal fixtures, hardware, light fixtures, roofing materials and other non-masonry items.
  - 2. If already installed, protect from cleaning solution with polyethylene film or waterproof masking tape.
  - 3. Remove large mortar particles by hand with wooden paddles and non-metallic tools
  - 4. Always test cleaner on sample panel or small area to demonstrate products, procedures and stain suitability of each type of stain
  - 5. Materials: Clean masonry units with the following masonry cleaners:
    - a. For Burnished Face use:
      - 1) Sure Klean Burnished Custom Masonry Cleaner, by Prosoco as per manufacturer's instructions and cleaning procedures
      - 2) MND80 New Masonry Detergent, By EaCo Chem as per manufacturer's instructions and cleaning procedures

**END OF SECTION 04 22 23**

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**SECTION 05 50 00 - METAL FABRICATIONS****PART 1 - GENERAL**

## 1.1 SUMMARY

- A. This Section includes the following:
  - 1. Steel handrails & handrail brackets.

## 1.2 ACTION SUBMITTALS

- A. Shop Drawings: Include plans, elevations, sections, and details of metal fabrications and their connections. Show anchorage and accessory items.
- B. Templates: For anchors and bolts.

**PART 2 - PRODUCTS**

## 2.1 MATERIALS

- A. Metal Surfaces, General: Provide materials with smooth, flat surfaces without blemishes.
- B. Ferrous Metals:
  - 1. Steel Plates, Shapes, and Bars: ASTM A 36/A 36M.
  - 2. Steel Tubing: ASTM A 500, cold-formed steel tubing.
  - 3. Steel Pipe: ASTM A 53/A 53M, standard weight (Schedule 40), unless another weight is indicated or required by structural loads.
  - 4. Steel Sheet, Cold Rolled: ASTM A 1008/A 1008M, either commercial steel or structural steel, exposed.

## 2.2 FASTENERS

- A. General: Type 304 stainless-steel fasteners for exterior use and zinc-plated fasteners with coating complying with ASTM B 633, Class Fe/Zn 5, at exterior walls. Select fasteners for type, grade, and class required.
- B. Cast-in-Place Anchors in Concrete: Threaded or wedge type; galvanized ferrous castings, either ASTM A 47/A 47M malleable iron or ASTM A 27/A 27M cast steel. Provide bolts, washers, and shims as needed, hot-dip galvanized per ASTM A 153/A 153M.

## 2.3 MISCELLANEOUS MATERIALS

- A. Non-shrink, Nonmetallic Grout: Factory-packaged, nonstaining, noncorrosive, nongaseous grout complying with ASTM C 1107.

## 2.4 FABRICATION

- A. General: Preassemble items in the shop to greatest extent possible. Use connections that maintain structural value of joined pieces.
1. Cut, drill, and punch metals cleanly and accurately. Remove burrs and ease edges. Remove sharp or rough areas on exposed surfaces.
  2. Weld corners and seams continuously. Use materials and methods that minimize distortion and develop strength and corrosion resistance of base metals. Obtain fusion without undercut or overlap. Remove welding flux immediately. Finish exposed welds smooth and blended.
  3. Form exposed connections with hairline joints, flush and smooth, using concealed fasteners where possible. Locate joints where least conspicuous.
  4. Fabricate seams and other connections that will be exposed to weather in a manner to exclude water. Provide weep holes where water may accumulate.
  5. Where units are indicated to be cast into concrete or built into masonry, equip with integrally welded steel strap anchors, not less than 24 inches o.c.
- B. Miscellaneous Framing and Supports: Provide steel framing and supports not specified in other Sections as needed to complete the Work. Fabricate units from steel shapes, plates, and bars of welded construction. Cut, drill, and tap units to receive hardware, hangers, and similar items.
- C. Miscellaneous Steel Trim: Fabricate units from steel shapes, plates, and bars of profiles shown with continuously welded joints and smooth exposed edges. Miter corners and use concealed field splices where possible. Provide cutouts, fittings, and anchorages as needed to coordinate assembly and installation with other work.
1. Exterior Miscellaneous Steel Trim: Galvanize.

## 2.5 HANDRAIL BRACKETS

- A. Provide steel handrail brackets by the following manufacturer:
1. Julius Blum & Co. Inc
    - a. Stamped Wall Brackets for Pipe Railings
    - b. Material: Steel
    - c. Finish: Field-painted

## 2.6 FINISHES

- A. Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes. Finish metal fabrications after assembly.
- B. Preparation
1. Preparation for Shop Priming: Prepare uncoated ferrous-metal surfaces to comply with requirements indicated below for environmental exposure conditions of installed metal fabrications:
    - a. Interiors (SSPC Zone 1A): SSPC-SP 3, "Power Tool Cleaning."
  2. Shop Priming: Apply shop primer to uncoated surfaces of metal fabrications, except those with galvanized finishes and those to be embedded in concrete, sprayed-on fireproofing, or masonry, to comply with SSPC-PA 1, "Paint Application Specification No. 1: Shop, Field, and Maintenance Painting," for shop painting.
- C. Primer
1. Primer, Rust-Inhibitive, Water-Based Interior MPI 107

- a. Vehicle: Acrylic
  - b. Volume Solids: 39 +/- 2%
  - c. VOC: < 100g/L
  2. Manufacturer
    - a. Sherwin-Williams – Pro Industrial Pro-Cryl Universal Primer
    - b. PPG – Pitt Tech Plus Interior/Exterior DTM Industrial Primer, 90-908 Series
    - c. Approved Equal
  3. Color: Gray
- D. Galvanizing Repair Paint: SSPC-Paint 20, high-zinc-dust-content paint for regalvanizing welds in steel.

### **PART 3 - EXECUTION**

#### **3.1 INSTALLATION**

- A. General: Perform cutting, drilling, and fitting required for installing metal fabrications. Set metal fabrications accurately in location, with edges and surfaces level, plumb, and true.
1. Fit exposed connections accurately together. Weld connections that are not to be left as exposed joints but cannot be shop welded.
  2. Provide anchorage devices and fasteners where metal fabrications are required to be fastened to in-place construction.
  3. Provide temporary bracing or anchors in formwork for items that are to be built into concrete, masonry, or similar construction.
- B. Set bearing and leveling plates on cleaned surfaces using wedges, shims, or leveling nuts. After bearing members have been positioned and plumbed, tighten anchor bolts and pack solidly with non-shrink, nonmetallic grout.
- C. Touch up surfaces and finishes after erection.
1. Painted Surfaces: Clean field welds, bolted connections, and abraded areas and touch up paint with the same material as used for shop painting.

**END OF SECTION 05 50 00**

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**SECTION 06 10 00 – ROUGH CARPENTRY**

**PART 1 - GENERAL**

1.1 DESCRIPTION:

- A. This section specifies wood blocking, framing, sheathing, furring, nailers, sub-flooring, rough hardware, and light wood construction.

1.2 RELATED WORK:

- A. Architectural woodwork: Section 06 40 23, ARCHITECTURAL WOODWORK.

1.3 SUBMITTALS:

- A. Submit in accordance with Section 01 33 00 SUBMITTAL PROCEDURES.
- B. Shop Drawings showing framing connection details, fasteners, connections and dimensions.
- C. Manufacturer's Literature and Data:
  - 1. Submit data for lumber, panels, hardware and adhesives.
  - 2. Submit data for wood-preservative treatment from chemical treatment manufacturer and certification from treating plants that treated materials comply with requirements. Indicate type of preservative used and net amount of preservative retained.
  - 3. For products receiving a waterborne treatment, submit statement that moisture content of treated materials was reduced to levels specified before shipment to project site.
- D. Manufacturer's certificate for unmarked lumber.

1.4 PRODUCT DELIVERY, STORAGE AND HANDLING:

- A. Protect lumber and other products from dampness both during and after delivery at site.
- B. Pile lumber in stacks in such manner as to provide air circulation around surfaces of each piece.
- C. Stack plywood and other board products so as to prevent warping.
- D. Locate stacks on well drained areas, supported at least 6 inches above grade and cover with well-ventilated sheds having firmly constructed over hanging roof with sufficient end wall to protect lumber from driving rain.

1.5 QUALITY ASSURANCE:

- A. Installer: A firm with a minimum of three (3) years' experience in the type of work required by this section.

1.6 GRADING AND MARKINGS:

- A. Any unmarked lumber or plywood panel for its grade and species will not be allowed. For lumber and material not normally grade marked, provide manufacturer's certificates (approved by an American Lumber Standards approved agency) attesting that lumber and material meet the specified the specified requirements.

1.7 APPLICABLE PUBLICATIONS:

- A. Publications listed below form a part of this specification to extent referenced. Publications are referenced in the text by basic designation only.
- B. American Forest and Paper Association (AFPA):
  - NDS-15 ..... National Design Specification for Wood Construction
  - WCD1-01 ..... Details for Conventional Wood Frame Construction
- C. American Society of Mechanical Engineers (ASME):

- B18.2.1-12(R2013)..... Square and Hex Bolts and Screws
- B18.2.2-10..... Square and Hex Nuts
- B18.6.1-81(R2008)..... Wood Screws
- D. American Plywood Association (APA):
  - E30-11..... Engineered Wood Construction Guide
- E. ASTM International (ASTM):
  - A653/A653M-13 ..... Steel Sheet Zinc-Coated (Galvanized) or Zinc-Iron Alloy Coated (Galvannealed) by the Hot Dip Process
  - F844-07a(R2013)..... Washers, Steel, Plan (Flat) Unhardened for General Use
  - F1667-13..... Nails, Spikes, and Staples
- F. American Wood Protection Association (AWPA):
  - AWPA Book of Standards
- H. U.S. Department of Commerce Product Standard (PS)
  - PS 1-95 ..... Construction and Industrial Plywood
  - PS 20-10 ..... American Softwood Lumber Standard

**PART 2 - PRODUCTS**

2.1 LUMBER:

- A. Unless otherwise specified, each piece of lumber must bear grade mark, stamp, or other identifying marks indicating grades of material, and rules or standards under which produced.
  - 1. Identifying marks are to be in accordance with rule or standard under which material is produced, including requirements for qualifications and authority of the inspection organization, usage of authorized identification, and information included in the identification.
  - 2. Inspection agency for lumber approved by the Board of Review, American Lumber Standards Committee, to grade species used.
- B. Structural Members: Species and grade as listed in the AFPA NDS having design stresses as shown.
- C. Lumber Other Than Structural:
  - 1. Unless otherwise specified, species graded under the grading rules of an inspection agency approved by Board of Review, American Lumber Standards Committee.
  - 2. Framing lumber: Minimum extreme fiber stress in bending of 7584 kPa (1100 PSI).
  - 3. Furring, blocking, nailers and similar items 4 inches and narrower Standard Grade; and, members 6 inches and wider, Number 2 Grade.
  - 4. Board Sub-flooring: Shiplap edge, 25 mm (1 inch) thick, not less than 203 mm (8 inches) wide.
- D. Sizes:
  - 1. Conforming to PS 20.
  - 2. Size references are nominal sizes, unless otherwise specified, actual sizes within manufacturing tolerances allowed by standard under which produced.
- E. Moisture Content:
  - 1. Maximum moisture content of wood products is to be as follows at the time of delivery to site.
    - a. Boards and lumber 2 inches and less in thickness: 19 percent or less.
    - b. Lumber over 2 inches thick: 25 percent or less.
- F. Preservative Treatment:
  - 1. Do not treat Heart Redwood and Western Red Cedar.
  - 2. Treat wood members and plywood exposed to weather or in contact with plaster, masonry or concrete, including framing of open roofed structures; sills, sole plates, furring, and sleepers that are less than 610 mm (24 inches) from ground; nailers, edge strips, blocking, crickets, curbs, cant, vent strips and other members provided in connection with roofing and flashing materials.
  - 3. Treat other members specified as preservative treated (PT).

4. Preservative treat by the pressure method complying with AWPA Book use category system standards U1 and T1, except any process involving the use of Chromated Copper Arsenate (CCA) or other agents classified as carcinogenic for pressure treating wood is not permitted.

## 2.2 STRUCTURAL-USE PANELS:

- A. Comply with APA E30.
- B. Bearing the mark of a recognized association or independent agency that maintains continuing control over quality of panel which identifies compliance by end use, Span Rating, and exposure durability classification.
- C. Wall and Roof Sheathing:
  1. APA Rated sheathing panels, durability classification of Exposure 1 or Exterior Span Rating of 16/0 or greater for supports 16 inches on center and 24/0 or greater for supports 24 inches on center.
- D. Subflooring:
  1. Under finish wood flooring or underlayment:
    - a. APA rated sheathing panels, durability classification of Exposure 1 or Exterior.
    - b. Span Rating of 24/16 or greater for supports 16 inches.
  2. Under resilient floor or carpet.
    - a. APA rated combination subfloor-underlayment grade panels, durability classification of Exposure 1 or Exterior T and G.
    - b. Span Rating of 16 or greater for supports 16 inches on center and 24 or greater for supports 24 inches on center.

## 2.3 ROUGH HARDWARE AND ADHESIVES:

- A. Anchor Bolts:
  1. ASME B18.2.1 and ASME B18.2.2 galvanized, 1/2 inch unless shown otherwise.
  2. Extend at least 8 inches into masonry or concrete with ends bent 2 inches.
- B. Miscellaneous Bolts: Expansion Bolts: C1D A-A-55615; lag bolt, long enough to extend at least 2-1/2 inches into masonry or concrete. Provide 1/2 inch bolt unless shown otherwise.
- C. Washers
  1. ASTM F844.
  2. Provide zinc or cadmium coated steel or cast iron for washers exposed to weather.
- D. Screws:
  1. Wood to Wood: ASME B18.6.1 or ASTM C1002.
  2. Wood to Steel: ASTM C954, or ASTM C1002.
- E. Nails:
  1. Size and type best suited for purpose unless noted otherwise. Provide aluminum-alloy nails, plated nails, or zinc-coated nails, for nailing wood work exposed to weather and on roof blocking.
  2. ASTM F1667:
    - a. Common: Type I, Style 10.
    - b. Concrete: Type I, Style 11.
    - c. Barbed: Type I, Style 26.
    - d. Underlayment: Type I, Style 25.
    - e. Masonry: Type I, Style 27.
    - f. Provide special nails designed for use with ties, strap anchors, framing connectors, joists hangers, and similar items. Nails not less than 1-1/4 inches long, 8d and deformed or annular ring shank.
- F. Framing and Timber Connectors:
  1. Fabricate of ASTM A653/A653M, Grade A; steel sheet not less than 0.052 inch thick unless specified otherwise. Apply standard plating to steel timber connectors after punching, forming and assembly of parts.
  2. Framing Angles: Angle designed with bendable legs to provide three (3) way anchors.
  3. Straps:

- a. Designed to provide wind and seismic ties with sizes as shown or specified.
- b. Strap ties not less than 1-1/4 inches wide.
- c. Punched for fastener.
4. Joist Hangers:
  - a. Fabricated of 0.063 inch minimum thick sheet, U design unless shown otherwise.
  - b. Heavy duty hangers fabricated of minimum 0.108 inch thick sheet, U design with bent top flange to lap over beam.
5. Joist Ties: Mild steel flats, 3/16 inch by 1-1/4 inch size with ends bent about 30 degrees from horizontal, and extending at least 16 inches onto framing. Punch each end for three (3) spikes.
6. Wall Anchors for Joists and Rafters:
  - a. Mild steel strap, 5 mm by 32 mm (3/16 inch by 1-1/4 inch) with wall ends bent 50 mm (2 inches), or provide 9 mm by 130 mm (3/8 inch by 5 inch) pin through strap end built into masonry.
  - b. Strap long enough to extend onto three joists or rafters, and punched for spiking at each bearing.
  - c. Strap not less than 4 inches embedded end.
7. Joint Plates:
  - a. Steel plate punched for nails.
  - b. Steel plates formed with teeth or prongs for mechanically clamping plates to wood.
  - c. Size for axial eccentricity, and fastener loads.
- G. Adhesives:
  1. For field-gluing sheathing to lumber framing floor or roof systems: ASTM D3498.

### PART 3 - EXECUTION

#### 3.1 INSTALLATION OF FRAMING AND MISCELLANEOUS WOOD MEMBERS:

- A. Conform to applicable requirements of the following:
  1. AFPA NDS for timber connectors.
  2. AITC A190.1 Timber Construction Manual for heavy timber construction.
  3. AFPA WCD1 for nailing and framing unless specified otherwise.
  4. APA for installation of plywood or structural use panels.
  5. TPI for metal plate connected wood trusses.
- B. Fasteners:
  1. Nails.
    - a. Nail in accordance with the Recommended Nailing Schedule as specified in AFPA WCD1 where detailed nailing requirements are not specified in nailing schedule. Select nail size and nail spacing sufficient to develop adequate strength for the connection without splitting the members.
    - b. Use special nails with framing connectors.
    - c. For sheathing and subflooring, select length of nails sufficient to extend 1 inch into supports.
    - d. Use 8d or larger nails for nailing through 1 inch thick lumber and for toe nailing 2 inch thick lumber.
    - e. Use 16d or larger nails for nailing through 2 inch thick lumber.
    - f. Select the size and number of nails in accordance with the Nailing Schedule except for special nails with framing anchors.
    - g. Nailing Schedule; Using Common Nails:
      - 1) Joist bearing on sill or girder, toe nail three (3) 8d nails or framing anchor.
      - 2) Bridging to joist, toe nail each end two (2) 8d nails.
      - 3) Ledger strip to beam or girder three (3) 16d nails under each joint.
      - 4) Subflooring or Sheathing:
        - a) 6 inch wide or less to each joist face nail two (2) 8d nails.

- b) Subflooring, more than 6 inches wide, to each stud or joint, face nail three (3) 8d nails.
  - c) Plywood or structural use panel to each stud or joist face nail 8d, at supported edges 152 mm 6 inches on center and at intermediate supports 10 inches on center. When gluing plywood to joint framing increase nail spacing to 12 inches at supported edges and 508 mm (20 inches) o.c. at intermediate supports.
  - 5) Sole plate to joist or blocking, through sub floor face nail 20d nails, 16 inches on center.
  - 6) Top plate to stud, end nail two (2) 16d nails.
  - 7) Stud to sole plate, toe nail or framing anchor. Four (4) 8d nails.
  - 8) Doubled studs, face nail 16d at 24 inches on center.
  - 9) Built-up corner studs 16d at 24 inches on center.
  - 10) Doubled top plates, face nails 16d at 16 inches on center.
  - 11) Top plates, laps, and intersections, face nail two (2) 16d.
  - 12) Continuous header, two pieces 16d at 16 inches on center along each edge.
  - 13) Ceiling joists to plate, toenail three (3) 8d or framing anchor.
  - 14) Continuous header to stud, four (4) 16d.
  - 15) Ceiling joists, laps over partitions, face nail three (3) 16d or framing anchor.
  - 16) Ceiling joists, to parallel rafters, face nail three (3) 16d.
  - 17) Rafter to plate, toe nail three (3) 8d or framing anchor. Brace 1 inch thick board to each stud and plate, face nail three (3) 8d.
  - 18) Built-up girders and beams 20d at 32 inches on center along each edge.
2. Bolts:
- a. Fit bolt heads and nuts bearing on wood with washers.
  - b. Countersink bolt heads flush with the surface of nailers.
  - c. Embed in concrete and solid masonry or provide expansion bolts. Special bolts or screws designed for anchor to solid masonry or concrete in drilled holes may be used.
  - d. Provide toggle bolts to hollow masonry or sheet metal.
  - e. Provide bolts to steel over 0.112 inch, 11 gage in thickness. Secure wood nailers to vertical structural steel members with bolts, placed one at ends of nailer and 610 mm (24 inch) intervals between end bolts. Provide clips to beam flanges.
3. Drill Screws to steel less than 0.112 inch thick.
- a. ASTM C1002 for steel less than 0.033 inch thick.
  - b. ASTM C954 for steel over 0.033 inch thick.
4. Power actuated drive pins may be provided where practical to anchor to solid masonry, concrete, or steel.
5. Do not anchor to wood plugs or nailing blocks in masonry or concrete. Provide metal plugs, inserts or similar fastening.
6. Screws to Join Wood:
- a. Where shown or option to nails.
  - b. ASTM C1002, sized to provide not less than 1 inch penetration into anchorage member.
  - c. Spaced same as nails.
- C. Set sills or plates level in full bed of mortar on masonry or concrete walls.
- 1. Space anchor bolts 4 feet on centers between ends and within 6 inches of end. Stagger bolts from side to side on plates over 7 inches in width.
  - 2. Provide shims of slate, tile or similar approved material to level wood members resting on concrete or masonry. Do not use wood shims or wedges.
  - 3. Closely fit, and set to required lines.
- D. Cut notch, or bore in accordance with AFPA WCD1 passage of ducts wires, bolts, pipes, conduits and to accommodate other work. Repair or replace miscut, misfit or damaged work.
- E. Blocking Nailers, and Furring:
- 1. Install furring, blocking, nailers, and grounds where shown.
  - 2. Provide longest lengths practicable.
  - 3. Provide fire retardant treated wood blocking where shown at openings and where shown or specified.

4. Layers of Blocking or Plates:
    - a. Stagger end joints between upper and lower pieces.
    - b. Nail at ends and not over 24 inches between ends.
    - c. Stagger nails from side to side of wood member over 5 inches in width.
  6. Unless otherwise shown, provide wall furring 1 inch by 3 inch continuous wood strips installed plumb on walls, using wood shims where necessary so face of furring forms a true, even plane. Space furring not over 16 inches on centers, butt joints over bearings and rigidly secure in place. Anchor furring on 16 inches centers.
- F. Floor and Ceiling Framing:
1. Set with crown edge up.
  3. Bear on not less than 4 inches on concrete and masonry, and 1-1/2 inches on wood and metal unless shown otherwise.
  4. Support joist, trimmer joists, headers, and beams framing into carrying members at same relative levels on joist hangers unless shown otherwise.
  5. Lap and spike wood joists together at bearing, or butt end-to-end with scab ties at joint and spike to plates. Scab tie lengths not less than 8 inches lap on joist ends. Install wood I beam joists as indicated in contract documents.
  6. Frame openings with headers and trimmer joist. Double headers carrying more than two tail joists and trimmer joists supporting headers carrying more than one tail joist unless otherwise indicated in contract documents.
  7. Drive nails through headers into joists using two (2) nails for 2 inch by 6 inch; three (3) nails for 2 inch by 8 inch and four (4) nails for 2 inch by 10 inch and over in size.
  8. Install nearest joist to double headers and spike joist to both header members before trimmer joist is installed and secured together.
  9. Doubled joists under partitions parallel with floor joists.
  10. Where joists run perpendicular to masonry or concrete, anchor every third joist to masonry or concrete with one (1) metal wall anchor. Securely spike anchors with three (3) nails to side of joist near its bottom.
  13. Nonbearing partitions running parallel with ceiling joists, install solid 50 mm (2 inch) thick bridging same depth as ceiling joists cut to fit snug between joists for securing top plate of partitions. Securely spike bridging to joists. Space 1219 mm (4 feet) on center.
- G. Bridging:
1. Provide 1 inch by 3 inch lumber with ends beveled for slope.
  2. Install one (1) row of bridging for joist spans over 8 feet, but less than 16 feet long; install two (2) rows for spans over 16 feet long.
  3. Install an extra row of bridging between trimmer and next two 2 joists if header is more than 2 feet from end of trimmer or from regular row of bridging.
  4. Secure with two (2) nails at ends.
  5. Leave bottom ends loose until after subflooring or roof sheathing is installed.
  6. Install single row of bridging at centerline of span and two (2) rows at the third points of span unless otherwise shown.
- H. Roof Framing:
1. Set rafters with crown edge up.
  2. Form a true plane at tops of rafters.
  3. Valley, Ridge, and Hip Members:
    - a. Size for depth of cut on rafters.
    - b. Straight and true intersections of roof planes.
    - c. Secure hip and valley rafters to wall plates by using framing connectors.
    - d. Double valley rafters longer than the available lumber, with pieces lapped not less than 4 feet and spiked together.
    - e. Butt joint and scab hip rafters longer than the available lumber.
  4. Spike to wall plate and to ceiling joists except when secured with framing connectors.

5. Frame openings in roof with headers and trimmer rafters. Double headers carrying more than one (1) rafter unless shown otherwise.
  6. Install 2 inch by 4 inch strut between roof rafters and ceiling joists at 4 feet on center unless shown otherwise.
- I. Partition and Wall Framing:
1. Provide 2 inch by 4 inch studs spaced 16 inches on centers; unless otherwise indicated on contract documents.
  2. Install double studs at openings and triple studs at corners.
  3. Installation of sole plate:
    - a. Anchor plates of walls or partitions resting on concrete floors in place with expansion bolts, one (1) near ends of piece and at intermediate intervals of not more than 4 feet or with power actuated drive pins with threaded ends of suitable type and size, spaced 2 feet on center unless shown otherwise.
    - b. Nail plates to wood framing through subfloor as specified in nailing schedule.
  4. Headers or Lintels:
    - a. Make headers for openings of two (2) pieces of 2 inch thick lumber of size shown with plywood filler to finish flush with face of studs or solid lumber of equivalent size.
    - b. Support ends of headers on top of stud cut for height of opening. Spike cut stud to adjacent stud. Spike adjacent stud to header.
  5. Provide double top plates, with members lapped at least 2-feet spiked together.
  6. Install intermediate cut studs over headers and under sills to maintain uniformity of stud spacing.
  7. Provide single sill plates at bottom of opening unless otherwise indicated in contract documents. Toe nail to end stud, face nail to intermediate studs.
  8. Install 2 inch blocking for firestopping so that maximum dimension of any concealed space is not over 8 feet in accordance with AFPA WCD1.
- J. Subflooring:
1. Subflooring to be structural-use panels.
  2. Apply structural-use panel subflooring with face grain or long dimension at right angles to the supports, with edges 1/4 inch apart at side joints, and 1/8 inch apart at end joints or as recommended by manufacturer.
  3. Stagger panel end joints and make over support.
- K. Sheathing:
1. Provide structural-use panels for roof sheathing.
  2. Lay panels with joints staggered, with edge and ends 3 mm apart and nailed over bearings as specified.
  3. Set nails not less than 3/8 inch from edges.
  4. Install 2x4 blocking spiked between joists, rafters and studs to support edge or end joints of panels.

**END OF SECTION 06 10 00**

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**SECTION 06 16 00 – SHEATHING W/ INTERGRAL AWB****PART 1 - GENERAL**

## 1.1 RELATED DOCUMENTS

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

## 1.2 SUMMARY

- A. Section Includes:
  - 1. Combination wall sheathing, water resistive barrier and air barrier.
  - 2. Self-adhering flashing.
  - 3. Self-adhering flexible flashing.

## 1.3 ACTION SUBMITTALS

- A. Product Data: For each type of process and factory-fabricated product. Indicate component materials and dimensions and include construction and application details.
  - 1. For panels with integral water resistive barrier, include data on air/-moisture-infiltration protection based on testing according to referencing standards.

## 1.4 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Capable of demonstrating that all wood procurement operations are conducted in accordance with procedures and policies of the Sustainable Forestry Initiative (SFI) Program.

## 1.5 DELIVERY, STORAGE, AND HANDLING

- A. Outdoor Storage. Comply with manufacturer's recommendations and as follows:
  - 1. Set panel bundles on supports to keep off ground.
  - 2. Cover panels loosely with waterproof protective material.
  - 3. Anchor covers on top of stack, but keep away from sides and bottom to assure adequate air circulation.
  - 4. When high moisture conditions exist, cut banding on panel stack to prevent edge damage.

## 1.6 WARRANTY

- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of sheathing system that fail due to manufacturing defects within specified warranty period.

1. Construction Period Warranty: Manufacturer shall warrant the panels and tape for weather exposure for a period of 180 days from installation.
2. System Warranty Period: 30 years from date of Substantial Completion.

## **PART 2 - PRODUCTS**

### **2.1 PERFORMANCE REQUIREMENTS**

- A. Fire-Resistance Ratings: As tested according to ASTM E 119; testing by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.
  1. Fire-Resistance Ratings: Indicated by design designations from UL's "Fire Resistance Directory" or from the listings of another qualified testing agency.

### **2.2 WOOD PANEL PRODUCTS**

- A. Oriented Strand Board: DOC PS 2-10.
- B. Thickness: As needed to comply with requirements specified, but not less than thickness indicated. Thickness shall satisfy minimum and maximum requirements for referenced performance category.
- C. Factory mark panels to indicate compliance with applicable standard.

### **2.3 COMBINATION WALL SHEATHING, AIR AND WATER-RESISTIVE BARRIER**

- A. Oriented-Strand-Board Wall Sheathing: With integral water-resistive barrier, Exposure 1 sheathing.
  1. Basis-of-Design Product: Subject to compliance with requirements, provide Huber Engineered Woods LLC; ZIP System® Wall Sheathing or a comparable product by one of the following:
    - a. Approved Equal
  2. Span Rating, Panel Grade and Performance Category: Not less than 24/16; Rated Sheathing 7/16 Performance Category
  3. Edge Profile: Self-spacing profile.
  4. Provide fastening guide on top panel surface with pre-spaced fastening symbols for 16-inches and 24-inches on centers spacing.
  5. Performance Standard: DOC PS2-10 and ICC-ES ESR-1474.
  6. Factory laminated integral water-resistive barrier facer.
  7. Perm Rating of Integral Water-Resistive Barrier: 12-16 perms.
  8. Assembly maximum air leakage of 0.0072 cfm/sq. ft. infiltration and 0.0023 cfm/ sq. ft. exfiltration at a pressure differential of 1.57.
  9. Exposure Time: Designed to resist weather exposure for 180 days.

**2.4 FASTENERS**

- A. General: Provide fasteners of size and type that comply with requirements specified in this article by the authority having jurisdiction, International Building Code, International Residential Code, Wood Frame Construction manual, and National Design Specification.

**2.5 MISCELLANEOUS MATERIALS**

- A. Self-Adhering Seam and Flashing Tape: Pressure-sensitive, self-adhering, cold-applied, proprietary seam tape consisting of polyolefin film with acrylic adhesive.
1. Basis-of-Design Product: Subject to compliance with requirements provide Huber Engineered Woods; ZIP System® Seam and Flashing Tape or a comparable product by one of the following:
    - a. Approved Equal.
  2. Thickness: 0.012 inch.
  3. Width: 6 inch.
  4. Code Compliance: Comply with requirements of authorities having jurisdiction and ICC Evaluation Service, Inc. "AC148 - Acceptance Criteria for Flexible Flashing Materials."
  5. International Code Council (ICC), ICC-ES ESR2227.
  6. American Architectural Manufacturer's Association; AAMA 711.
- B. Self-Adhering Flexible Flashing Tape: Pressure-sensitive, self-adhering, cold-applied, flexible flashing tape consisting of a flexible acrylic foam backing with acrylic adhesive.
1. Basis-of-Design Product: Subject to compliance with requirements provide Huber Engineered Woods; ZIP System® Stretch Tape or a comparable product by one of the following:
    - a. Approved Equal.
  2. Thickness: 0.042 inch.
  3. Width: 6 inch.
  4. Code Compliance: Comply with requirements of authorities having jurisdiction and ICC Evaluation Service, Inc. "AC148 - Acceptance Criteria for Flexible Flashing Materials."
  5. International Association of Plumbing and Mechanical Officials (IAPMO), IAPMO ER365.
  6. American Architectural Manufacturer's Association; AAMA 711.

**PART 3 - EXECUTION****3.1 INSTALLATION, GENERAL**

- A. Do not use materials with defects that impair quality of sheathing or pieces that are too small to use with minimum number of joints or optimum joint arrangement.
- B. Cut panels at penetrations, edges, and other obstructions of work; fit tightly against abutting construction unless otherwise indicated.
- C. Securely attach to substrate by fastening as indicated, complying with the following:
1. Chapter 23 in the ICC's International Building Code.

2. Table R602.3(1), "Fastener Schedule for Structural Members," and Table R602.3(2), "Alternate Attachments," in the ICC's International Residential Code for One- and Two-Family Dwellings.
  3. ICC-ES evaluation report for fastener.
- D. Use common wire nails unless otherwise indicated. Select fasteners of size that will not fully penetrate members where opposite side will be exposed to view or will receive finish materials. Make tight connections. Install fasteners without splitting wood.
- E. Coordinate wall sheathing installation with flashing and joint-sealant installation so these materials are installed in sequence and manner that prevent exterior moisture from passing through completed assembly.
- F. Do not bridge building expansion joints; cut and space edges of panels to match spacing of structural support elements.

### 3.2 WOOD STRUCTURAL PANEL INSTALLATION

- A. General: Comply with applicable recommendations in APA Form No. E30, "Engineered Wood Construction Guide," for types of structural-use panels and applications indicated.
- B. Fastening Methods: Fasten panels as indicated below:
1. Wall Sheathing:
    - a. Nail or staple to wood framing.
    - b. Space panels 1/8 inch apart at edges and ends.
    - c. Install fasteners 3/8 inch to 1/2 inch from panel edges.
    - d. Space fasteners in compliance with requirements of authority having jurisdiction.

### 3.3 SHEATHING JOINT TREATMENT

- A. Seal sheathing joints according to sheathing manufacturer's written instructions.
1. Apply seam tape to joints between sheathing panels.
  2. Utilize tape gun or hard rubber roller provided by manufacturer to ensure tape is completely adhered to substrates.
  3. When using liquid-applied flashing to seal sheathing joints follow manufacturer's recommendations for sealing panel seams.

### 3.4 FLEXIBLE FLASHING INSTALLATION

- A. Apply tape flexible flashing or membrane where indicated to comply with manufacturer's written instructions.
1. After flexible flashing tape has been applied, roll surfaces with a hard rubber to ensure that flashing is completely adhered to substrates.
  2. Width for flexible flashing: 6 inch.

**END OF SECTION 06 16 00**

**SECTION 06 10 00 – ROUGH CARPENTRY**

**PART 1 - GENERAL**

1.1 DESCRIPTION:

- A. This section specifies wood blocking, framing, sheathing, furring, nailers, sub-flooring, rough hardware, and light wood construction.

1.2 RELATED WORK:

- A. Architectural woodwork: Section 06 40 23, ARCHITECTURAL WOODWORK.

1.3 SUBMITTALS:

- A. Submit in accordance with Section 01 33 00 SUBMITTAL PROCEDURES.
- B. Shop Drawings showing framing connection details, fasteners, connections and dimensions.
- C. Manufacturer's Literature and Data:
  - 1. Submit data for lumber, panels, hardware and adhesives.
  - 2. Submit data for wood-preservative treatment from chemical treatment manufacturer and certification from treating plants that treated materials comply with requirements. Indicate type of preservative used and net amount of preservative retained.
  - 3. For products receiving a waterborne treatment, submit statement that moisture content of treated materials was reduced to levels specified before shipment to project site.
- D. Manufacturer's certificate for unmarked lumber.

1.4 PRODUCT DELIVERY, STORAGE AND HANDLING:

- A. Protect lumber and other products from dampness both during and after delivery at site.
- B. Pile lumber in stacks in such manner as to provide air circulation around surfaces of each piece.
- C. Stack plywood and other board products so as to prevent warping.
- D. Locate stacks on well drained areas, supported at least 6 inches above grade and cover with well-ventilated sheds having firmly constructed over hanging roof with sufficient end wall to protect lumber from driving rain.

1.5 QUALITY ASSURANCE:

- A. Installer: A firm with a minimum of three (3) years' experience in the type of work required by this section.

1.6 GRADING AND MARKINGS:

- A. Any unmarked lumber or plywood panel for its grade and species will not be allowed. For lumber and material not normally grade marked, provide manufacturer's certificates (approved by an American Lumber Standards approved agency) attesting that lumber and material meet the specified the specified requirements.

1.7 APPLICABLE PUBLICATIONS:

- A. Publications listed below form a part of this specification to extent referenced. Publications are referenced in the text by basic designation only.
- B. American Forest and Paper Association (AFPA):
  - NDS-15 ..... National Design Specification for Wood Construction
  - WCD1-01 ..... Details for Conventional Wood Frame Construction
- C. American Society of Mechanical Engineers (ASME):

- B18.2.1-12(R2013)..... Square and Hex Bolts and Screws
- B18.2.2-10..... Square and Hex Nuts
- B18.6.1-81(R2008)..... Wood Screws
- D. American Plywood Association (APA):
  - E30-11..... Engineered Wood Construction Guide
- E. ASTM International (ASTM):
  - A653/A653M-13 ..... Steel Sheet Zinc-Coated (Galvanized) or Zinc-Iron Alloy Coated (Galvannealed) by the Hot Dip Process
  - F844-07a(R2013)..... Washers, Steel, Plan (Flat) Unhardened for General Use
  - F1667-13..... Nails, Spikes, and Staples
- F. American Wood Protection Association (AWPA):
  - AWPA Book of Standards
- H. U.S. Department of Commerce Product Standard (PS)
  - PS 1-95 ..... Construction and Industrial Plywood
  - PS 20-10 ..... American Softwood Lumber Standard

**PART 2 - PRODUCTS**

2.1 LUMBER:

- A. Unless otherwise specified, each piece of lumber must bear grade mark, stamp, or other identifying marks indicating grades of material, and rules or standards under which produced.
  - 1. Identifying marks are to be in accordance with rule or standard under which material is produced, including requirements for qualifications and authority of the inspection organization, usage of authorized identification, and information included in the identification.
  - 2. Inspection agency for lumber approved by the Board of Review, American Lumber Standards Committee, to grade species used.
- B. Structural Members: Species and grade as listed in the AFPA NDS having design stresses as shown.
- C. Lumber Other Than Structural:
  - 1. Unless otherwise specified, species graded under the grading rules of an inspection agency approved by Board of Review, American Lumber Standards Committee.
  - 2. Framing lumber: Minimum extreme fiber stress in bending of 7584 kPa (1100 PSI).
  - 3. Furring, blocking, nailers and similar items 4 inches and narrower Standard Grade; and, members 6 inches and wider, Number 2 Grade.
  - 4. Board Sub-flooring: Shiplap edge, 25 mm (1 inch) thick, not less than 203 mm (8 inches) wide.
- D. Sizes:
  - 1. Conforming to PS 20.
  - 2. Size references are nominal sizes, unless otherwise specified, actual sizes within manufacturing tolerances allowed by standard under which produced.
- E. Moisture Content:
  - 1. Maximum moisture content of wood products is to be as follows at the time of delivery to site.
    - a. Boards and lumber 2 inches and less in thickness: 19 percent or less.
    - b. Lumber over 2 inches thick: 25 percent or less.
- F. Preservative Treatment:
  - 1. Do not treat Heart Redwood and Western Red Cedar.
  - 2. Treat wood members and plywood exposed to weather or in contact with plaster, masonry or concrete, including framing of open roofed structures; sills, sole plates, furring, and sleepers that are less than 610 mm (24 inches) from ground; nailers, edge strips, blocking, crickets, curbs, cant, vent strips and other members provided in connection with roofing and flashing materials.
  - 3. Treat other members specified as preservative treated (PT).

4. Preservative treat by the pressure method complying with AWPA Book use category system standards U1 and T1, except any process involving the use of Chromated Copper Arsenate (CCA) or other agents classified as carcinogenic for pressure treating wood is not permitted.

## 2.2 STRUCTURAL-USE PANELS:

- A. Comply with APA E30.
- B. Bearing the mark of a recognized association or independent agency that maintains continuing control over quality of panel which identifies compliance by end use, Span Rating, and exposure durability classification.
- C. Wall and Roof Sheathing:
  1. APA Rated sheathing panels, durability classification of Exposure 1 or Exterior Span Rating of 16/0 or greater for supports 16 inches on center and 24/0 or greater for supports 24 inches on center.
- D. Subflooring:
  1. Under finish wood flooring or underlayment:
    - a. APA rated sheathing panels, durability classification of Exposure 1 or Exterior.
    - b. Span Rating of 24/16 or greater for supports 16 inches.
  2. Under resilient floor or carpet.
    - a. APA rated combination subfloor-underlayment grade panels, durability classification of Exposure 1 or Exterior T and G.
    - b. Span Rating of 16 or greater for supports 16 inches on center and 24 or greater for supports 24 inches on center.

## 2.3 ROUGH HARDWARE AND ADHESIVES:

- A. Anchor Bolts:
  1. ASME B18.2.1 and ASME B18.2.2 galvanized, 1/2 inch unless shown otherwise.
  2. Extend at least 8 inches into masonry or concrete with ends bent 2 inches.
- B. Miscellaneous Bolts: Expansion Bolts: C1D A-A-55615; lag bolt, long enough to extend at least 2-1/2 inches into masonry or concrete. Provide 1/2 inch bolt unless shown otherwise.
- C. Washers
  1. ASTM F844.
  2. Provide zinc or cadmium coated steel or cast iron for washers exposed to weather.
- D. Screws:
  1. Wood to Wood: ASME B18.6.1 or ASTM C1002.
  2. Wood to Steel: ASTM C954, or ASTM C1002.
- E. Nails:
  1. Size and type best suited for purpose unless noted otherwise. Provide aluminum-alloy nails, plated nails, or zinc-coated nails, for nailing wood work exposed to weather and on roof blocking.
  2. ASTM F1667:
    - a. Common: Type I, Style 10.
    - b. Concrete: Type I, Style 11.
    - c. Barbed: Type I, Style 26.
    - d. Underlayment: Type I, Style 25.
    - e. Masonry: Type I, Style 27.
    - f. Provide special nails designed for use with ties, strap anchors, framing connectors, joists hangers, and similar items. Nails not less than 1-1/4 inches long, 8d and deformed or annular ring shank.
- F. Framing and Timber Connectors:
  1. Fabricate of ASTM A653/A653M, Grade A; steel sheet not less than 0.052 inch thick unless specified otherwise. Apply standard plating to steel timber connectors after punching, forming and assembly of parts.
  2. Framing Angles: Angle designed with bendable legs to provide three (3) way anchors.
  3. Straps:

- a. Designed to provide wind and seismic ties with sizes as shown or specified.
- b. Strap ties not less than 1-1/4 inches wide.
- c. Punched for fastener.
4. Joist Hangers:
  - a. Fabricated of 0.063 inch minimum thick sheet, U design unless shown otherwise.
  - b. Heavy duty hangers fabricated of minimum 0.108 inch thick sheet, U design with bent top flange to lap over beam.
5. Joist Ties: Mild steel flats, 3/16 inch by 1-1/4 inch size with ends bent about 30 degrees from horizontal, and extending at least 16 inches onto framing. Punch each end for three (3) spikes.
6. Wall Anchors for Joists and Rafters:
  - a. Mild steel strap, 5 mm by 32 mm (3/16 inch by 1-1/4 inch) with wall ends bent 50 mm (2 inches), or provide 9 mm by 130 mm (3/8 inch by 5 inch) pin through strap end built into masonry.
  - b. Strap long enough to extend onto three joists or rafters, and punched for spiking at each bearing.
  - c. Strap not less than 4 inches embedded end.
7. Joint Plates:
  - a. Steel plate punched for nails.
  - b. Steel plates formed with teeth or prongs for mechanically clamping plates to wood.
  - c. Size for axial eccentricity, and fastener loads.
- G. Adhesives:
  1. For field-gluing sheathing to lumber framing floor or roof systems: ASTM D3498.

### PART 3 - EXECUTION

#### 3.1 INSTALLATION OF FRAMING AND MISCELLANEOUS WOOD MEMBERS:

- A. Conform to applicable requirements of the following:
  1. AFPA NDS for timber connectors.
  2. AITC A190.1 Timber Construction Manual for heavy timber construction.
  3. AFPA WCD1 for nailing and framing unless specified otherwise.
  4. APA for installation of plywood or structural use panels.
  5. TPI for metal plate connected wood trusses.
- B. Fasteners:
  1. Nails.
    - a. Nail in accordance with the Recommended Nailing Schedule as specified in AFPA WCD1 where detailed nailing requirements are not specified in nailing schedule. Select nail size and nail spacing sufficient to develop adequate strength for the connection without splitting the members.
    - b. Use special nails with framing connectors.
    - c. For sheathing and subflooring, select length of nails sufficient to extend 1 inch into supports.
    - d. Use 8d or larger nails for nailing through 1 inch thick lumber and for toe nailing 2 inch thick lumber.
    - e. Use 16d or larger nails for nailing through 2 inch thick lumber.
    - f. Select the size and number of nails in accordance with the Nailing Schedule except for special nails with framing anchors.
    - g. Nailing Schedule; Using Common Nails:
      - 1) Joist bearing on sill or girder, toe nail three (3) 8d nails or framing anchor.
      - 2) Bridging to joist, toe nail each end two (2) 8d nails.
      - 3) Ledger strip to beam or girder three (3) 16d nails under each joint.
      - 4) Subflooring or Sheathing:
        - a) 6 inch wide or less to each joist face nail two (2) 8d nails.

- b) Subflooring, more than 6 inches wide, to each stud or joint, face nail three (3) 8d nails.
  - c) Plywood or structural use panel to each stud or joist face nail 8d, at supported edges 152 mm 6 inches on center and at intermediate supports 10 inches on center. When gluing plywood to joint framing increase nail spacing to 12 inches at supported edges and 508 mm (20 inches) o.c. at intermediate supports.
  - 5) Sole plate to joist or blocking, through sub floor face nail 20d nails, 16 inches on center.
  - 6) Top plate to stud, end nail two (2) 16d nails.
  - 7) Stud to sole plate, toe nail or framing anchor. Four (4) 8d nails.
  - 8) Doubled studs, face nail 16d at 24 inches on center.
  - 9) Built-up corner studs 16d at 24 inches on center.
  - 10) Doubled top plates, face nails 16d at 16 inches on center.
  - 11) Top plates, laps, and intersections, face nail two (2) 16d.
  - 12) Continuous header, two pieces 16d at 16 inches on center along each edge.
  - 13) Ceiling joists to plate, toenail three (3) 8d or framing anchor.
  - 14) Continuous header to stud, four (4) 16d.
  - 15) Ceiling joists, laps over partitions, face nail three (3) 16d or framing anchor.
  - 16) Ceiling joists, to parallel rafters, face nail three (3) 16d.
  - 17) Rafter to plate, toe nail three (3) 8d or framing anchor. Brace 1 inch thick board to each stud and plate, face nail three (3) 8d.
  - 18) Built-up girders and beams 20d at 32 inches on center along each edge.
2. Bolts:
- a. Fit bolt heads and nuts bearing on wood with washers.
  - b. Countersink bolt heads flush with the surface of nailers.
  - c. Embed in concrete and solid masonry or provide expansion bolts. Special bolts or screws designed for anchor to solid masonry or concrete in drilled holes may be used.
  - d. Provide toggle bolts to hollow masonry or sheet metal.
  - e. Provide bolts to steel over 0.112 inch, 11 gage in thickness. Secure wood nailers to vertical structural steel members with bolts, placed one at ends of nailer and 610 mm (24 inch) intervals between end bolts. Provide clips to beam flanges.
3. Drill Screws to steel less than 0.112 inch thick.
- a. ASTM C1002 for steel less than 0.033 inch thick.
  - b. ASTM C954 for steel over 0.033 inch thick.
4. Power actuated drive pins may be provided where practical to anchor to solid masonry, concrete, or steel.
5. Do not anchor to wood plugs or nailing blocks in masonry or concrete. Provide metal plugs, inserts or similar fastening.
6. Screws to Join Wood:
- a. Where shown or option to nails.
  - b. ASTM C1002, sized to provide not less than 1 inch penetration into anchorage member.
  - c. Spaced same as nails.
- C. Set sills or plates level in full bed of mortar on masonry or concrete walls.
- 1. Space anchor bolts 4 feet on centers between ends and within 6 inches of end. Stagger bolts from side to side on plates over 7 inches in width.
  - 2. Provide shims of slate, tile or similar approved material to level wood members resting on concrete or masonry. Do not use wood shims or wedges.
  - 3. Closely fit, and set to required lines.
- D. Cut notch, or bore in accordance with AFPA WCD1 passage of ducts wires, bolts, pipes, conduits and to accommodate other work. Repair or replace miscut, misfit or damaged work.
- E. Blocking Nailers, and Furring:
- 1. Install furring, blocking, nailers, and grounds where shown.
  - 2. Provide longest lengths practicable.
  - 3. Provide fire retardant treated wood blocking where shown at openings and where shown or specified.

4. Layers of Blocking or Plates:
    - a. Stagger end joints between upper and lower pieces.
    - b. Nail at ends and not over 24 inches between ends.
    - c. Stagger nails from side to side of wood member over 5 inches in width.
  6. Unless otherwise shown, provide wall furring 1 inch by 3 inch continuous wood strips installed plumb on walls, using wood shims where necessary so face of furring forms a true, even plane. Space furring not over 16 inches on centers, butt joints over bearings and rigidly secure in place. Anchor furring on 16 inches centers.
- F. Floor and Ceiling Framing:
1. Set with crown edge up.
  3. Bear on not less than 4 inches on concrete and masonry, and 1-1/2 inches on wood and metal unless shown otherwise.
  4. Support joist, trimmer joists, headers, and beams framing into carrying members at same relative levels on joist hangers unless shown otherwise.
  5. Lap and spike wood joists together at bearing, or butt end-to-end with scab ties at joint and spike to plates. Scab tie lengths not less than 8 inches lap on joist ends. Install wood I beam joists as indicated in contract documents.
  6. Frame openings with headers and trimmer joist. Double headers carrying more than two tail joists and trimmer joists supporting headers carrying more than one tail joist unless otherwise indicated in contract documents.
  7. Drive nails through headers into joists using two (2) nails for 2 inch by 6 inch; three (3) nails for 2 inch by 8 inch and four (4) nails for 2 inch by 10 inch and over in size.
  8. Install nearest joist to double headers and spike joist to both header members before trimmer joist is installed and secured together.
  9. Doubled joists under partitions parallel with floor joists.
  10. Where joists run perpendicular to masonry or concrete, anchor every third joist to masonry or concrete with one (1) metal wall anchor. Securely spike anchors with three (3) nails to side of joist near its bottom.
  13. Nonbearing partitions running parallel with ceiling joists, install solid 50 mm (2 inch) thick bridging same depth as ceiling joists cut to fit snug between joists for securing top plate of partitions. Securely spike bridging to joists. Space 1219 mm (4 feet) on center.
- G. Bridging:
1. Provide 1 inch by 3 inch lumber with ends beveled for slope.
  2. Install one (1) row of bridging for joist spans over 8 feet, but less than 16 feet long; install two (2) rows for spans over 16 feet long.
  3. Install an extra row of bridging between trimmer and next two 2 joists if header is more than 2 feet from end of trimmer or from regular row of bridging.
  4. Secure with two (2) nails at ends.
  5. Leave bottom ends loose until after subflooring or roof sheathing is installed.
  6. Install single row of bridging at centerline of span and two (2) rows at the third points of span unless otherwise shown.
- H. Roof Framing:
1. Set rafters with crown edge up.
  2. Form a true plane at tops of rafters.
  3. Valley, Ridge, and Hip Members:
    - a. Size for depth of cut on rafters.
    - b. Straight and true intersections of roof planes.
    - c. Secure hip and valley rafters to wall plates by using framing connectors.
    - d. Double valley rafters longer than the available lumber, with pieces lapped not less than 4 feet and spiked together.
    - e. Butt joint and scab hip rafters longer than the available lumber.
  4. Spike to wall plate and to ceiling joists except when secured with framing connectors.

5. Frame openings in roof with headers and trimmer rafters. Double headers carrying more than one (1) rafter unless shown otherwise.
  6. Install 2 inch by 4 inch strut between roof rafters and ceiling joists at 4 feet on center unless shown otherwise.
- I. Partition and Wall Framing:
1. Provide 2 inch by 4 inch studs spaced 16 inches on centers; unless otherwise indicated on contract documents.
  2. Install double studs at openings and triple studs at corners.
  3. Installation of sole plate:
    - a. Anchor plates of walls or partitions resting on concrete floors in place with expansion bolts, one (1) near ends of piece and at intermediate intervals of not more than 4 feet or with power actuated drive pins with threaded ends of suitable type and size, spaced 2 feet on center unless shown otherwise.
    - b. Nail plates to wood framing through subfloor as specified in nailing schedule.
  4. Headers or Lintels:
    - a. Make headers for openings of two (2) pieces of 2 inch thick lumber of size shown with plywood filler to finish flush with face of studs or solid lumber of equivalent size.
    - b. Support ends of headers on top of stud cut for height of opening. Spike cut stud to adjacent stud. Spike adjacent stud to header.
  5. Provide double top plates, with members lapped at least 2-feet spiked together.
  6. Install intermediate cut studs over headers and under sills to maintain uniformity of stud spacing.
  7. Provide single sill plates at bottom of opening unless otherwise indicated in contract documents. Toe nail to end stud, face nail to intermediate studs.
  8. Install 2 inch blocking for firestopping so that maximum dimension of any concealed space is not over 8 feet in accordance with AFPA WCD1.
- J. Subflooring:
1. Subflooring to be structural-use panels.
  2. Apply structural-use panel subflooring with face grain or long dimension at right angles to the supports, with edges 1/4 inch apart at side joints, and 1/8 inch apart at end joints or as recommended by manufacturer.
  3. Stagger panel end joints and make over support.
- K. Sheathing:
1. Provide structural-use panels for roof sheathing.
  2. Lay panels with joints staggered, with edge and ends 3 mm apart and nailed over bearings as specified.
  3. Set nails not less than 3/8 inch from edges.
  4. Install 2x4 blocking spiked between joists, rafters and studs to support edge or end joints of panels.

**END OF SECTION 06 10 00**

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**SECTION 06 40 23 - ARCHITECTURAL WOODWORK****PART 1 - GENERAL**

## 1.1 SUMMARY

- A. This Section includes the following:
  - 1. Plastic laminate countertops
  - 2. Stainless steel countertops
  - 3. Painted hardwood trim

## 1.2 ACTION SUBMITTALS

- A. Product Data:
  - 1. Cabinet hardware and accessories
  - 2. Finishing materials
  - 3. Finishing processes.
- B. Shop Drawings: Show location of each item, dimensioned plans and elevations, large-scale details, attachment devices, and other components.
  - 1. Coordinate shop drawings with work provided under the related sections above.
- C. Samples:
  - 1. Plastic-laminates, for each type, color, pattern, and surface finish.
  - 2. Lumber and panel products with shop-applied transparent finish, for each finish system and color, with exposed surface finished.
- D. Woodwork Quality Standard Compliance Certificates: AWI Quality Certification Program certificates.

## 1.3 QUALITY ASSURANCE

- A. Quality Standard: Unless otherwise indicated, comply with AWI's "Architectural Woodwork Quality Standards."
- B. Fabricator and Installer Qualifications: Fabricator and installer shall be currently certified by the Architectural Woodwork Institute (AWI) Quality Certification Program for the type of millwork, casework and finishing indicated and grades specified.

## 1.4 PROJECT CONDITIONS

- A. Environmental Limitations: Do not deliver or install woodwork until building is enclosed, wet work is complete, and HVAC system is operating and maintaining temperature and relative humidity at occupancy levels during the remainder of the construction period.

**PART 2 - PRODUCTS**

## 2.1 MATERIALS

- A. Wood Products:
  - 1. Panel Products
    - a. Medium-Density Fiberboard: ANSI A208.2, Grade MD. MDF to have Class A fire retardant rating.
    - b. Particleboard: ANSI A208.1, Grade M-2.
- B. Wood species and cut for opaque finish, standing and running trim:
  - 1. Poplar, plain sawn.
- C. High-Pressure Decorative Laminate: NEMA LD 3, grades as indicated or, if not indicated, as required by woodwork quality standard.
  - 1. Laminate Manufacturers:
    - a. Formica
    - b. Wilson Art
    - c. Approved Equal
  - 2. Laminate selection for exposed surfaces of countertops: Will be selected by Architect from full range of Manufacturer's colors.

## 2.2 MISCELLANEOUS MATERIALS

- A. Furring, Blocking, Shims, and Hanging Strips: Softwood or hardwood lumber, kiln-dried to less than 15 percent moisture content.
- B. Adhesives, General: Do not use adhesives that contain urea formaldehyde.
- C. Support Brackets:
  - 1. Counter Support Brackets Basis of Design: RAKKS EH-1818. Quantity as shown on drawings.
    - a. Finish: Black powder coat

## 2.3 FABRICATION

- A. General: Complete fabrication to maximum extent possible before shipment to Project site. Where necessary for fitting at site, provide allowance for scribing, trimming, and fitting.
  - 1. Shop cut openings to maximum extent possible. Sand edges of cutouts to remove splinters and burrs. Seal edges of openings in countertops with a coat of varnish.
- B. Plastic-Laminate Countertops:
  - 1. AWI Quality Grade: Premium
  - 2. High-Pressure Decorative Laminate Grade: HGS.
  - 3. Colors, Patterns, and Finishes: As selected by Architect from laminate manufacturer's full range of solid colors and patterns, matte finish.
  - 4. Edge Treatment: 3mm PVC edge. Color to match adjacent plastic laminate.
- C. Stainless Steel Countertops:
  - 1. Material:
    - a. 26 ga. Stainless steel ASTM A240, Type 304, dead soft, fully annealed, with a #4 polished directional satin finish.

- b. Substrate marine-grade plywood with balance sheet.

### **PART 3 - EXECUTION**

#### **3.1 INSTALLATION**

- A. Before installation, condition woodwork to average prevailing humidity conditions in installation areas. Examine shop-fabricated work for completion and complete work as required, including removal of packing and backpriming.
- B. Grade: Install woodwork to comply with requirements for the same grade specified in Part 2 for fabrication of type of woodwork involved.
- C. Install woodwork level, plumb, true, and straight to a tolerance of 1/8 inch in 96 inches. Shim as required with concealed shims.
- D. Scribe and cut woodwork to fit adjoining work, refinish cut surfaces, and repair damaged finish at cuts.
- E. Cabinets: Install without distortion so doors and drawers fit openings properly and are accurately aligned. Adjust hardware to center doors and drawers in openings and to provide unencumbered operation.
  - 1. Fasten wall cabinets through back, near top and bottom, at ends and not more than 16 inches o.c. with No. 10 wafer-head screws sized for 1-inch penetration into wood framing, blocking, or hanging strips.
- F. Quartz Agglomerate Countertops:
  - 1. Install countertops level in accordance with approved shop drawings and product installation details.
  - 2. Form field joints using manufacturer's recommended adhesive, with joint widths no greater than 1/8" in finished work.
  - 3. Keep components and hands clean during installation.
  - 4. Remove adhesives, sealants and other stains.
- G. Standing and Running Trim: Install in same pattern as wood wall panels, using 4' length pieces as shown on wood wall elevations.

#### **3.2 ADJUSTING AND CLEANING**

- A. Adjust cabinets and hardware so doors and drawers are centered in openings and operate smoothly without warp or bind. Lubricate operating hardware as recommended by manufacturer.
- B. Remove all protective coverings, fabrication labels, layout marks, etc. from casework, drawers, panels and trim prior to acceptance by the Owner.

### **END OF SECTION 06 40 23**

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## **SECTION 07 21 00 - THERMAL INSULATION**

### **PART 1 - GENERAL**

#### 1.1 SUMMARY

- A. Section Includes:
  - 1. Glass-fiber blanket insulation at exterior wood stud wall, floor & roof cavities.

#### 1.2 ACTION SUBMITTALS

- A. Product Data: For each type of product indicated.

#### 1.3 INFORMATIONAL SUBMITTALS

- A. Product test reports.
- B. Research/evaluation reports.

### **PART 2 - PRODUCTS**

#### 2.1 GLASS-FIBER BLANKET INSULATION

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
  - 1. CertainTeed Corporation.
  - 2. Guardian Building Products, Inc.
  - 3. Johns Manville.
  - 4. Knauf Insulation.
  - 5. Owens Corning.
  - 6. Approved Equal
- B. Performance Requirements:
  - 1. Exterior Wall: R-13
- C. Unfaced, Glass-Fiber Blanket Insulation: ASTM C 665, Type I; with maximum flame-spread and smoke-developed indexes of 25 and 50, respectively, per ASTM E 84; passing ASTM E 136 for combustion characteristics.

### **PART 3 - EXECUTION**

#### 3.1 INSTALLATION, GENERAL

- A. Comply with insulation manufacturer's written instructions applicable to products and applications indicated.

- B. Install insulation that is undamaged, dry, and unsoiled and that has not been left exposed to ice, rain, or snow at any time.
- C. Extend insulation to envelop entire area to be insulated. Cut and fit tightly around obstructions and fill voids with insulation. Remove projections that interfere with placement.
- D. Provide sizes to fit applications indicated and selected from manufacturer's standard thicknesses, widths, and lengths. Apply single layer of insulation units to produce thickness indicated unless multiple layers are otherwise shown or required to make up total thickness.

**END OF SECTION 07 21 00**

**SECTION 07 42 13 – PROFILED METAL PANEL SYSTEM****PART 1 - GENERAL**

## 1.1 SUMMARY

- A. This Section includes:
  - 1. Exposed fastener profiled (corrugated) lap-seam metal wall panels to be used as exterior wall & roof cladding.

## 1.2 PERFORMANCE REQUIREMENTS

- A. Structural performance: provide exterior wall & roof cladding assemblies capable of withstanding the effects of load and stresses from dead loads, wind loads, snow loads and normal thermal movement without evidence of permanent defects of assemblies or components.
  - 1. Dead load: As required by applicable building code.
  - 2. Live load: As required by applicable building code.
  - 3. Wind Load: Uniform pressure (velocity pressure) of 30 lbs /sf acting inward or outward.
  - 4. Thermal movements: Provide assemblies that allow for thermal movements resulting from the following maximum changes (range) in ambient and surface temperatures by preventing buckling, opening of joints, overstressing of components and other detrimental effects:
    - a. Temperature Change: 120 deg F, ambient; 180 deg F, material surfaces
- B. Sealed joints shall allow free and silent movement of panels during expansion and contraction while preventing uncontrolled penetration of moisture.
- C. Manufacturing and installation shall prevent deformation of exposed surfaces.
- D. Design panel system to accommodate substructure tolerance of +0 to -1/8 inch.
- E. Not Permitted: Vibration harmonics; wind whistles; noises caused by thermal movement; weakening or fracturing of attachments or components of system.
- F. Structural Performance / Uniform Load Deflection Test: Provide panel system which has been tested in accordance with both ASTM E330 and ASTM E1592 structural testing at a design pressure of at least 60 psf without deformation or failures of structural members. Maximum allowable deflection of span: L/180.

## 1.3 SUBMITTALS

- A. Product Data: Manufacturer's product literature for the exposed fastener profile (corrugated) lap-seam metal panel system as specified.
- B. Shop Drawings: For exterior exposed fastener profiled (corrugated) panels and accessories. Include plans; elevations; sections and details.
- C. Quality Assurance Submittals: Submit the following:

1. Certificates: Product certificates signed by manufacturer certifying materials comply with the specified performance characteristics and criteria, and physical requirements.
  - D. Samples for initial selections: Manufacturer's color charts showing the full range of colors available for units with factory-applied color finishes.
  - E. Samples for verification: Provide color samples of selected color. Samples shall involve normal color and texture variations, include sample sets showing the full range of variations expected.
  - F. Affidavit certifying that the material meets the requirements specified.
- 1.4 QUALITY ASSURANCE
- A. Manufacturer Qualifications: Minimum of 5 years experience in manufacturing exposed fastener profiled (corrugated) lap-seam metal panel systems similar to those specified.
  - B. Installer Qualifications: Acceptable to manufacturer.
- 1.5 DELIVERY, STORAGE, AND HANDLING
- A. General: Comply with Division 1 Product Requirements Sections.
  - B. Ordering: Comply with manufacturer's ordering instructions, and lead time requirements to avoid construction delays.
  - C. Delivery: Deliver materials in manufacturer's original, unopened, undamaged containers with identification labels intact.
    1. Store materials in accordance with manufacturer's recommendations.
    2. Handle materials carefully to avoid damage to materials and finishes.
- 1.6 PROJECT CONDITIONS
- A. Field Measurements: Verify actual supporting and adjoining construction by field measurements before fabrication and indicate recorded measurements on final shop drawings. Coordinate construction to ensure that panels fit properly to supporting and adjoining construction and coordinate schedule with construction progress to avoid delaying the work.
    1. Established dimensions: Where field measurements can not be made without delaying the work, guarantee dimensions and proceed with fabrication of panels corresponding to the established dimensions.
- 1.7 WARRANTY
- A. Project warranty refers to Conditions of the Contract for project warranty provisions. Manufacturer's warranty: submit, for Owner's acceptance, manufacturer's standard warranty documents executed by authorized company official. Manufacturer's warranty is in addition to, and not a limitation of, other rights owner may have under Contract Documents.
  - B. The Contractor shall warrant the materials to be free of faults and defects in accordance with the General Conditions, except that the warranty shall be extended by paint manufacturer's standard multi-year warranty. The warranty shall be in writing and shall be signed by the manufacturer.

- C. Materials Manufacturers: Repair or replace defective materials for a period of two (2) years.
- D. Panel System Installer: Repair or replace products or components which fail due to faulty workmanship for a period of two (2) years.
- E. Painted Finish: Coatings Manufacturer and applicator to warrant paint for a period of twenty (20) years after the Effective Date, the factory applied finish applied by the applicator.
  - 1. WILL NOT chip, crack or peel (lose adhesion) but does not include minute fracturing which may occur in proper fabrication of building parts.
  - 2. WILL NOT chalk in excess of ASTM D-4214-89 number eight (8) rating, determined by the procedure outlined in ASTM D-4214-89 specification test.
  - 3. WILL NOT change color more than five (5) Delta-E Hunter units as determined by ASTM method D-2244/ It is acknowledged that fading or color changes may not be uniform if the surfaces are not equally exposed to the sun and elements.

## PART 2 - PRODUCTS

### 2.1 EXPOSED FASTENER LAP-SEAM PROFILED PANELS

- A. General: Provide factory-formed metal panels designed to be field assembled by lapping side edges of adjacent panels and mechanically attaching panels to supports using exposed fasteners in side laps. Include accessories required for weathertight installation.

### 2.2 MANUFACTURER

- A. Manufacturers: Subject to compliance with requirements, provide products manufactured by:
  - 1. Mansea Metal, 4799 Salem Ave Dayton OH 45416. Phone: 937-915-2825, [www.manseametal.com](http://www.manseametal.com)
    - a. Product: Premium Rib Roofing w/ 3/4" rib height & 36" coverage width
    - b. *Confirm product matches metal panels on adjacent Baseball Building prior to ordering.*

### 2.3 MATERIALS

- A. Steel Panels: ASTM A653, G90 (lock-forming quality), extra smooth, tension-leveled, galvanized steel, minimum spangle.
  - 1. Thickness: 26 gauge

### 2.4 FABRICATION

- A. Tolerances
  - 1. Form panels in longest practical lengths, true to shape, accurate in size, square, and free from distribution or manufacturing defects.
  - 2. Bend lines, breaks, and angles shall be sharp and true, and surfaces shall be free from warp or buckle.
- B. Material surfaces shall be free of scratches or marks caused during fabrication.
- C. Ensure that entire project is manufactured from single color coil paint run to ensure color uniformity.

- D. Provide factory applied strippable plastic film for protection during fabrication and installation.

## 2.5 ACCESSORIES

- A. All fasteners shall be non-corrosive type, as recommended by the panel manufacturer. Provide self-tapping screws and other suitable fasteners designed to withstand building design loads; exposed fasteners with heads matching color of metal panels by means of factory-applied coating. Provide EPDM, PVC or neoprene sealing washers.
- B. Weather Resistant Membrane: Self-adhered synthetic roof underlayment basis of design: Firestone Building Products 'Clad-Gard SA Metal Underlayment' as specified on Roof Plan / Sheet A101.
- C. Flashing: Unless noted otherwise, shall be same material and gauge as for panel where exposed.
- D. Panel Sealants:
  - 1. Sealant Tape: Pressure-sensitive, gray isobutylene compound sealant tape with release-paper backing. Provide permanently elastic, non-sag, non-toxic, non-staining tape 1/8" thick and 1" wide.
  - 2. Joint Sealant: ASTM C90; elastomeric polyurethane, polysulfide, or silicone sealant; of type, grade, class and use classification required to seal joints in metal wall & roof panels and remain weathertight; and as recommended in writing by metal panel manufacturer.
  - 3. Non-Skinning Butyl Sealant: ASTM C734 Non-hardening, non-drying, non-oxidizing butyl rubber-based sealant.
- E. Closures: Provide closures at eaves, rakes and as indicated on drawings, fabricated of same metal as metal wall panels.
- F. Backing Plates: Provide metal backing plates at end splices, fabricated from material recommended by manufacturer.
- G. Closure Strips: Closed-cell, expand, cellular, rubber or cross-link polyolefin-foam or closed-cell laminated polyethylene; minimum 1 inch thick, flexible closure strips; cut or pre-molded to match metal wall panel profile. Provide closure strips where indicated or necessary to ensure weathertight or insect nesting-resistant construction. Provide at wall-mounted light fixtures to create even attachment across length of fixture.

## 2.6 FINISHES, GENERAL

- A. Comply with NAAMM's Metal Finishes Manual for architectural metal products for recommendations for applying and designating finishes.

## 2.7 FINISHES

- A. Panel Finishes:
  - 1. Coating shall be Coil-Coated Fluorocarbon Resin utilizing 70% Kynar 500 resins. Color as selected by A/E from manufacturer's standard colors.
  - 2. Number of Coats: 2-coat. Coating shall be factory applied on a continuous process paint line. Coating shall consist of a 0.2 mil prime coat, a 0.75 mil barrier coat, a 0.75 mil color coat containing 70% Kynar resins, and a 0.5 mil clear coat containing 70% Kynar resins.

3. Relevant to the color selected, material to be painted in accordance with either AAMA specification 2605 or 2604.
  4. Provide factory applied strippable plastic film for protection during fabrication and installation.
- B. Finish Performance:
1. Pencil Hardness – ASTM D3352-74
  2. Shall be HB-H minimum (Eagle Turquoise)
  3. Impact Adhesion – ASTM D294-84
    - a. Coating shall show no cracking and no loss of adhesion
  4. Cure Test – NCCA 11-18
    - a. Coating shall withstand 50+ double rubs of MEK.
  5. Humidity Resistance – ASTM D2247-87
    - a. Coating shall show no blisters after 3,000 hours of 100% humidity at 95 deg F.
  6. Salt Spray Resistance – ASTM B117-85
    - a. After 3,000 hours of exposure to 5% salt fog, at 95 deg F, scored sample shall show none or few #8 blisters, and less than 1/8" average creepage from scribe.
  7. Weatherometer Test – ASTM D882-86 / G23-88 Coating shall show no cracking, peeling, blistering or loss of adhesion after 2000 hours.
    - a. Chalking Resistance – ASTM D659-86
    - b. No chalking greater than #8 after 10 years Florida exposure at 45 degrees S.
    - c. Color Change – ASTM D2244-74
    - d. Color change shall not exceed 5 NBS units after 10 years Florida exposure at 45 degrees S.
    - e. After 5,000 hours in Atlas Weatherometer coating shall show no objectionable chalking or color change.
  8. Abrasion Resistance – ASTM D968-81 Coating shall resist 65 +/- 15 liters / mil minimum of falling sand.

### **PART 3 - EXECUTION**

#### **3.1 PREPARATION**

- A. Coordinate setting drawings, diagrams, templates, instructions, and directions for installation. Panel substructure shall be level and plumb. Coordinate delivery of such items to project site.

#### **3.2 INSTALLATION**

- A. General: Install metal wall & roof panels according to manufacturer's written instructions in orientation, sizes and locations indicated on drawings.
- B. Erect panel level and plumb, in proper alignment in relation to substructure framing and established lines; follow SMACNA Architectural Sheet Metal manual and standard practices.
- C. Panels shall be erected in accordance with approved shop drawings.
- D. Panel anchorage shall be structurally sound and per engineering recommendations.
- E. Where aluminum materials come in contact with dissimilar materials, an isolation shim or tape shall be installed at fastening locations.
- F. Install weather resistant membrane in accordance with drawings.

- G. Completed system shall be free from over bending, deforming, stretching, distortion, waves and buckles.
- H. Lap-seam metal panels: Fasten metal panels to supports with fasteners at each lapped joint at location and spacing recommended by manufacturer.
  - 1. Lap ribbed sheets on full rib corrugation. Apply panels and associated items for neat and weathertight enclosure. Avoid "panel creep" or application not true to line.
  - 2. Locate and space exposed fasteners in uniform vertical and horizontal alignment. Use proper tools to obtain controlled uniform compression for positive seal without rupture of washer.
  - 3. At panel splices, nest panels with minimum 4-inch end lap, sealed with butyl rubber sealant and fastened together as recommended by metal wall panel manufacturer.
- I. Install gaskets, joint fillers and sealants where indicated and where required for weathertight performance of metal wall panel assemblies. Provide types of gaskets, fillers and sealants indicated or if not indicated, types as recommended by metal panel manufacturer.
  - 1. Seal metal panel end laps with double beads of tape or sealant, full width of panels.
  - 2. Seal side joints where recommended by metal panel manufacturer.
  - 3. Prepare joints and apply sealants to comply with the requirements of 07 92 00 Joint Sealants.

### 3.3 CLEANING AND PROTECTING

- A. Clean exposed surfaces of panels that are not protected by temporary covering or remove fingerprints and soil during construction period.
- B. Clean exposed surfaces with water and a mild soap or detergent not harmful to finishes. Thoroughly rinse surfaces and dry.
- C. Protect panels from damage during construction. Use temporary protective coverings where needed as approved by the panel manufacturer.
- D. Clean and touch up minor abrasions in finish with air-dried coating that matches color and gloss, and is compactible with, factory-applied finish coating.
- E. Remove panels damaged beyond repair and replace with new panels to match adjacent undamaged panels.
- F. Remove protective film immediately after installation.

**END OF SECTION 07 42 13**

**SECTION 07 60 00 – FLASHING AND SHEET METAL**

**PART 1 - GENERAL**

1.1 SUMMARY

- A. Section Includes:
  - 1. Miscellaneous sheet metal flashing

1.2 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. Shop Drawings: For sheet metal flashing and trim.
  - 1. Include plans, elevations, sections, and attachment details.
  - 2. Distinguish between shop- and field-assembled work.
  - 3. Include identification of finish for each item.
  - 4. Include pattern of seams and details of termination points, expansion joints and expansion-joint covers, direction of expansion, roof-penetration flashing, and connections to adjoining work.
- C. Samples: For each exposed product and for each color and texture specified.

1.3 INFORMATIONAL SUBMITTALS

- A. Product certificates.
- B. Product test reports.
- C. Sample warranty.

1.4 CLOSEOUT SUBMITTALS

- A. Maintenance data.

1.5 QUALITY ASSURANCE

- A. Fabricator Qualifications: Employs skilled workers who custom fabricate sheet metal flashing and trim similar to that required for this Project and whose products have a record of successful in-service performance.

1.6 WARRANTY

- A. Warranty for roof edge shall be included with the warranty for the modified bitumen roofing system.

- B. Special Warranty on Finishes: Manufacturer agrees to repair finish or replace sheet metal flashing and trim that shows evidence of deterioration of factory-applied finishes within specified warranty period.
  - 1. Finish Warranty Period: 20 years from date of acceptance by the College.

## **PART 2 - PRODUCTS**

### **2.1 PERFORMANCE REQUIREMENTS**

- A. General: Sheet metal flashing and trim assemblies shall withstand wind loads, structural movement, thermally induced movement, and exposure to weather without failure due to defective manufacture, fabrication, installation, or other defects in construction. Completed sheet metal flashing and trim shall not rattle, leak, or loosen, and shall remain watertight.
- B. Sheet Metal Standard for Flashing and Trim: Comply with SMACNA's "Architectural Sheet Metal Manual" requirements for dimensions and profiles shown unless more stringent requirements are indicated.
- C. Thermal Movements: Allow for thermal movements from ambient and surface temperature changes.
  - 1. Temperature Change: 120 deg F, ambient; 180 deg F, material surfaces.

### **2.2 SHEET METAL MATERIALS**

- A. General: Protect mechanical and other finishes on exposed surfaces from damage by applying strippable, temporary protective film before shipping.
- B. Aluminum Sheet: ASTM B 209, alloy as standard with manufacturer for finish required, with temper as required to suit forming operations and performance required.
  - 1. Thickness: 0.040 inch or as indicated on the drawings.

### **2.3 MISCELLANEOUS MATERIALS**

- A. General: Provide materials and types of fasteners, solder, protective coatings, sealants, and other miscellaneous items as required for complete sheet metal flashing and trim installation and as recommended by manufacturer of primary sheet metal or manufactured item unless otherwise indicated.
- B. Fasteners: Wood screws, annular threaded nails, self-tapping screws, self-locking rivets and bolts, and other suitable fasteners designed to withstand design loads and recommended by manufacturer of primary sheet metal or manufactured item.
  - 1. General: Blind fasteners or self-drilling screws, gasketed, with hex-washer head.
    - a. Exposed Fasteners: Heads matching color of sheet metal using plastic caps or factory-applied coating. Provide metal-backed EPDM or PVC sealing washers under heads of exposed fasteners bearing on weather side of metal.
    - b. Blind Fasteners: High-strength aluminum or stainless-steel rivets suitable for metal being fastened.
  - 2. Fasteners for Aluminum Sheet: Aluminum or Series 300 stainless steel.

- C. Sealant Tape: Pressure-sensitive, 100 percent solids, polyisobutylene compound sealant tape with release-paper backing. Provide permanently elastic, non-sag, nontoxic, non-staining tape 1/2 inch wide and 1/8 inch thick.
- D. Elastomeric Sealant: ASTM C 920, elastomeric polyurethane polymer sealant; of type, grade, class, and use classifications required to seal joints in sheet metal flashing and trim and remain watertight.
- E. Butyl Sealant: ASTM C 1311, single-component, solvent-release butyl rubber sealant; polyisobutylene plasticized; heavy bodied for hooked-type expansion joints with limited movement.

## 2.4 FABRICATION, GENERAL

- A. General: Custom fabricate sheet metal flashing and trim to comply with details shown and recommendations in cited sheet metal standard that apply to design, dimensions, geometry, metal thickness, and other characteristics of item required. Fabricate sheet metal flashing and trim in shop to greatest extent possible.
  - 1. Obtain field measurements for accurate fit before shop fabrication.
  - 2. Form sheet metal flashing and trim to fit substrates without excessive oil canning, buckling, and tool marks; true to line, levels, and slopes; and with exposed edges folded back to form hems.
  - 3. Conceal fasteners and expansion provisions where possible. Do not use exposed fasteners on faces exposed to view.
- B. Expansion Provisions: Form metal for thermal expansion of exposed flashing and trim.
  - 1. Form expansion joints of intermeshing hooked flanges, not less than 1 inch deep, filled with butyl sealant concealed within joints.
  - 2. Use lapped expansion joints only where indicated on Drawings.
- C. Sealant Joints: Where movable, non-expansion type joints are required, form metal to provide for proper installation of elastomeric sealant according to cited sheet metal standard.
- D. Fabricate cleats and attachment devices from same material as accessory being anchored or from compatible, noncorrosive metal.
- E. Fabricate cleats and attachment devices of sizes as recommended by cited sheet metal standard for application, but not less than thickness of metal being secured.

## PART 3 - EXECUTION

### 3.1 INSTALLATION, GENERAL

- A. General: Anchor sheet metal flashing and trim and other components of the Work securely in place, with provisions for thermal and structural movement. Use fasteners, protective coatings, separators, sealants, and other miscellaneous items as required to complete sheet metal flashing and trim system.
  - 1. Install sheet metal flashing and trim true to line, levels, and slopes. Provide uniform, neat seams with minimum exposure of solder, welds, and sealant.
  - 2. Install sheet metal flashing and trim to fit substrates and to result in watertight performance. Verify shapes and dimensions of surfaces to be covered before fabricating sheet metal.

3. Space cleats not more than 12 inches apart. Attach each cleat with at least two fasteners. Bend tabs over fasteners.
    - a. Where continuous cleats are a part of the product assembly, anchor cleats in accordance with manufacturer's written specifications.
  4. Install exposed sheet metal flashing and trim with limited oil canning, and free of buckling and tool marks.
  5. Torch cutting of sheet metal flashing and trim is not permitted.
- B. Metal Protection: Where dissimilar metals contact each other, or where metal contacts pressure-treated wood or other corrosive substrates, protect against galvanic action or corrosion by painting contact surfaces with bituminous coating or by other permanent separation as recommended by sheet metal manufacturer or cited sheet metal standard.
1. Coat concealed side of uncoated-aluminum sheet metal flashing and trim with bituminous coating where flashing and trim contact wood, ferrous metal, or cementitious construction.
  2. Underlayment: Where installing sheet metal flashing and trim directly on cementitious or wood substrates, install underlayment and cover with slip sheet.
- C. Expansion Provisions: Provide for thermal expansion of exposed flashing and trim. Space movement joints at maximum of 10 feet with no joints within 24 inches of corner or intersection.
1. Form expansion joints of intermeshing hooked flanges, not less than 1 inch deep, filled with sealant concealed within joints.
  2. Use lapped expansion joints only where indicated on Drawings.
- D. Fasteners: Use fastener sizes that penetrate wood blocking or sheathing not less than 1-1/4 inches for nails and not less than 3/4 inch for wood screws.
- E. Conceal fasteners and expansion provisions where possible in exposed work and locate to minimize possibility of leakage. Cover and seal fasteners and anchors as required for a tight installation.
- F. Seal joints as required for watertight construction. Prepare joints and apply sealants to comply with requirements in Section 07 92 00 Joint Sealants.
- 3.2 CLEANING AND PROTECTION
- A. Clean exposed metal surfaces of substances that interfere with uniform oxidation and weathering.
  - B. Clean off excess sealants.
  - C. Remove temporary protective coverings and strippable films as sheet metal flashing and trim are installed unless otherwise indicated in manufacturer's written installation instructions.

**END OF SECTION 07 60 00**

**SECTION 07 92 00 - JOINT SEALANTS****PART 1 - GENERAL**

## 1.1 SUMMARY

- A. This Section includes joint sealants:
  - 1. Silicone joint sealants.
  - 2. Urethane joint sealants.
  - 3. Latex joint sealants.
- B. Related Sections:
  - 1. Section 08 80 00 Glazing - Glazing sealants

## 1.2 ACTION SUBMITTALS

- A. Product Data: For each joint-sealant product.
- B. Samples: For each type and color of joint sealant required, provide Samples with joint sealants in 1/2-inch- wide joints formed between two 6-inch- long strips of material matching the appearance of exposed surfaces adjacent to joint sealants.
- C. Joint-Sealant Schedule: Include the following information:
  - 1. Joint-sealant application, joint location, and designation.
  - 2. Joint-sealant manufacturer and product name.
  - 3. Joint-sealant formulation.
  - 4. Joint-sealant color.

## 1.3 INFORMATIONAL SUBMITTALS

- A. Product test reports.
- B. Sample warranties.

## 1.4 PERFORMANCE REQUIREMENTS

- A. Provide elastomeric joint sealants that establish and maintain watertight and airtight continuous joint seals without staining or deteriorating joint substrates.
- B. Provide joint sealants for interior applications that establish and maintain airtight and water-resistant continuous joint seals without staining or deteriorating joint substrates.

## 1.5 WARRANTY

- A. Special Installer's Warranty: Installer's standard form in which Installer agrees to repair or replace elastomeric joint sealants that do not comply with performance and other requirements specified in this Section within specified warranty period.
  - 1. Warranty Period: Five years from date of Owner acceptance.

- B. Special Manufacturer's Warranty: Manufacturer's standard form in which elastomeric sealant manufacturer agrees to furnish elastomeric joint sealants to repair or replace those that do not comply with performance and other requirements specified in this Section within specified warranty period.
1. Warranty Period: Two years from date of Owner acceptance.

## PART 2 - PRODUCTS

### 2.1 MATERIALS, GENERAL

- A. Compatibility: Provide joint sealants, backings, and other related materials that are compatible with one another and with joint substrates under conditions of service and application, as demonstrated by sealant manufacturer, based on testing and field experience.
- B. Colors of Exposed Joint Sealants: As selected by Architect/Engineer from manufacturer's full range.

### 2.2 ELASTOMERIC JOINT SEALANTS

- A. Elastomeric Sealants: Comply with ASTM C 920 and other requirements indicated for each liquid-applied chemically curing sealant specified, including those referencing ASTM C 920 classifications for type, grade, class, and uses related to exposure and joint substrates.
- B. Stain-Test-Response Characteristics: Where elastomeric sealants are specified to be nonstaining to porous substrates, provide products that have undergone testing according to ASTM C 1248 and have not stained porous joint substrates indicated for Project.
- C. Single-Component Nonsag Urethane Sealant: ASTM C920
1. Properties
    - a. Type: S (single component)
    - b. Grade: NS (nonsag).
    - c. Class: 25.
    - d. Uses Related to Exposure: T (traffic) and NT (nontraffic).
    - e. Movement Capability: +/- 25%
    - f. VOC:25 g/L
  2. Products:
    - a. Pecora Corporation; Dynatrol I-XL.
    - b. Sonneborn; NP 1.
    - c. Tremco; Vulkem 116.
    - d. Approved Equal
- D. Multicomponent Nonsag Urethane Sealant: ASTM C920
1. Properties:
    - a. Type: M (multicomponent)
    - b. Grade: NS (nonsag).
    - c. Class: 50.
    - d. Uses Related to Exposure: NT (nontraffic).
    - e. Uses Related to Joint Substrates: M, G, A, and, as applicable to joint substrates indicated, O.
    - f. Movement Capability: +/- 50%
    - g. VOC: <10 g/L Activator, <25 g/L Base

2. Products:
  - a. Pecora Corporation; Dynatrol II.
  - b. Tremco; Dymeric 240FC.
  - c. Sonneborn; NP 2.
  - d. Approved Equal
  
- E. Single-Component Mildew-Resistant Neutral-Curing Silicone Sealant: ASTM C920
  1. Properties:
    - a. Type: S (single component)
    - b. Grade: NS (nonsag).
    - c. Class: 50.
    - d. Use Related to Exposure: NT (nontraffic).
    - e. Uses Related to Joint Substrates: G, A, and, as applicable to joint substrates indicated, O.
    - f. Movement Capability: +/- 50%
    - g. VOC:40 g/L
  2. Products:
    - a. Pecora Corporation; 898.
    - b. Tremco; Tremsil 600 White.
    - c. Sonneborn; OmniPlus.
    - d. Approved Equal
  
- F. Latex Joint Sealants: ASTM C 834
  1. Properties:
    - a. Type: OP (opaque),
    - b. Grade NF (not tested for low-temperature flexibility)
    - c. VOC:31 g/L
  2. Products:
    - a. Pecora Corporation; AC-20+.
    - b. Tremco; Tremflex 834.
    - c. Sonneborn; Sonolac.
    - d. Approved Equal

### 2.3 JOINT-SEALANT BACKING

- A. General: Provide sealant backings of material and type that are non-staining; are compatible with joint substrates, sealants, primers, and other joint fillers; and are approved for applications indicated by sealant manufacturer based on field experience and laboratory testing.
- B. Cylindrical Sealant Backings: ASTM C 1330, Type C (closed-cell material with a surface skin), and of size and density to control sealant depth and otherwise contribute to producing optimum sealant performance.
- C. Bond-Breaker Tape: Polyethylene tape or other plastic tape recommended by sealant manufacturer for preventing sealant from adhering to rigid, inflexible joint-filler materials or joint surfaces at back of joint where such adhesion would result in sealant failure. Provide self-adhesive tape where applicable.

### 2.4 MISCELLANEOUS MATERIALS

- A. Primer: Material recommended by joint-sealant manufacturer where required for adhesion of sealant to joint substrates indicated, as determined from preconstruction joint-sealant-substrate tests and field tests.

- B. Cleaners for Nonporous Surfaces: Chemical cleaners acceptable to manufacturers of sealants and sealant backing materials, free of oily residues or other substances capable of staining or harming joint substrates and adjacent nonporous surfaces in any way, and formulated to promote optimum adhesion of sealants to joint substrates.
- C. Masking Tape: Nonstaining, nonabsorbent material compatible with joint sealants and surfaces adjacent to joints.

### PART 3 - EXECUTION

#### 3.1 PREPARATION

- A. Surface Cleaning of Joints: Clean out joints immediately before installing joint sealants.
  - 1. Remove all foreign material from joint substrates that could interfere with adhesion of joint sealant.
    - a. Clean porous joint substrate surfaces by brushing, grinding, blast cleaning, mechanical abrading, or a combination of these methods to produce a clean, sound substrate capable of developing optimum bond with joint sealants. Remove loose particles remaining after cleaning operations above by vacuuming or blowing out joints with oil-free compressed air.
  - 2. Remove laitance and form-release agents from concrete.
    - a. Clean nonporous surfaces with chemical cleaners or other means that do not stain, harm substrates, or leave residues capable of interfering with adhesion of joint sealants.
- B. Joint Priming: Prime joint substrates, where recommended in writing by joint-sealant manufacturer, based on preconstruction joint-sealant-substrate tests or prior experience. Apply primer to comply with joint-sealant manufacturer's written instructions. Confine primers to areas of joint-sealant bond; do not allow spillage or migration onto adjoining surfaces.
- C. Masking Tape: Use masking tape where required to prevent contact of sealant with adjoining surfaces that otherwise would be permanently stained or damaged by such contact or by cleaning methods required to remove sealant smears. Remove tape immediately after tooling without disturbing joint seal.

#### 3.2 INSTALLATION

- A. Sealant Installation Standard: Comply with recommendations in ASTM C 1193 for use of joint sealants as applicable to materials, applications, and conditions indicated.
- B. Acoustical Sealant Application Standard: Comply with recommendations in ASTM C 919 for use of joint sealants in acoustical applications as applicable to materials, applications, and conditions indicated.
- C. Install sealant backings of type indicated to support sealants during application and at position required to produce cross-sectional shapes and depths of installed sealants relative to joint widths that allow optimum sealant movement capability.
  - 1. Do not leave gaps between ends of sealant backings.
  - 2. Do not stretch, twist, puncture, or tear sealant backings.
  - 3. Remove absorbent sealant backings that have become wet before sealant application and replace them with dry materials.

- D. Install bond-breaker tape behind sealants where sealant backings are not used between sealants and backs of joints.
- E. Install sealants using proven techniques that comply with the following and at the same time backings are installed:
  - 1. Place sealants so they directly contact and fully wet joint substrates.
  - 2. Completely fill recesses in each joint configuration.
  - 3. Produce uniform, cross-sectional shapes and depths relative to joint widths that allow optimum sealant movement capability.
- F. Tooling of Nonsag Sealants: Immediately after sealant application and before skinning or curing begins, tool sealants according to requirements specified below to form smooth, uniform beads of configuration indicated; to eliminate air pockets; and to ensure contact and adhesion of sealant with sides of joint.
  - 1. Remove excess sealant from surfaces adjacent to joints.
  - 2. Use tooling agents that are approved in writing by sealant manufacturer and that do not discolor sealants or adjacent surfaces.
  - 3. Provide concave joint configuration per Figure 5A in ASTM C 1193, unless otherwise indicated.
- G. Clean off excess sealant or sealant smears adjacent to joints as the Work progresses by methods and with cleaning materials approved in writing by manufacturers of joint sealants and of products in which joints occur.

### 3.3 JOINT-SEALANT SCHEDULE

- A. Joint-Sealant Application: Exterior perimeter joints between existing brick/concrete and frames of doors and windows.
  - 1. Joint Sealant: Multi or Single-component urethane sealant.
  - 2. Joint-Sealant Color: as selected by Architect/Engineer from manufacturer's full range.
- B. Joint-Sealant Application: Interior perimeter joints of exterior openings.
  - 1. Joint Sealant: Latex sealant.
  - 2. Joint-Sealant Color: as selected by Architect/Engineer from manufacturer's full range.
- C. Joint-Sealant Application: Interior joints between plumbing fixtures and adjoining walls, floors, and counters.
  - 1. Joint Sealant: Single-component mildew-resistant neutral-curing silicone sealant.
  - 2. Joint-Sealant Color: White.
- D. Joint-Sealant Application: Perimeter joints between interior wall surfaces and frames of interior doors, windows .
  - 1. Joint Sealant: Latex sealant.
  - 2. Joint-Sealant Color: as selected by Architect/Engineer from manufacturer's full range.

**END OF SECTION 07 92 00**

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**SECTION 08 11 13 - HOLLOW METAL DOORS AND FRAMES****PART 1 - GENERAL**

## 1.1 SUMMARY

- A. Section Includes:
  - 1. Standard hollow metal doors and frames.
- B. Related Sections:
  - 1. Section 08 71 00 Door Hardware
  - 2. Section 09 91 13 Exterior Painting

## 1.2 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. Shop Drawings: Include elevations, door edge details, frame profiles, metal thicknesses, preparations for hardware, and other details.
- C. Schedule: Prepared by or under the supervision of supplier, using same reference numbers for details and openings as those on Drawings.

**PART 2 - PRODUCTS**

## 2.1 MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
  - 1. Ceco Door Products
  - 2. Curries Company
  - 3. Mesker Openings Group
  - 4. Republic
  - 5. Steelcraft
  - 6. Approved Equal

## 2.2 MATERIALS

- A. Cold-Rolled Steel Sheet: ASTM A 1008/A 1008M, CS, Type B; suitable for exposed applications.
- B. Frame Anchors: ASTM A 591/A 591M, Commercial Steel (CS), 40Z coating designation; mill phosphatized.
- C. Inserts, Bolts, and Fasteners: Hot-dip galvanized according to ASTM A 153/A 153M.

## 2.3 EXTERIOR DOOR AND FRAMES

- A. Extra Heavy-Duty Doors and Frames: SDI A250.8, Level 3. At locations indicated in the Door and Frame Schedule.
1. Physical Performance: Level B according to SDI A250.4.
  2. Doors and transoms:
    - a. Type: As indicated in the Door and Frame Schedule.
    - b. Thickness: 1-3/4 inches.
    - c. Face: Metallic-coated, cold-rolled steel sheet, minimum thickness of 0.053 inch (16 ga.) steel sheet.
    - d. Edge Construction: Model 2, Seamless, continuously welded, dressed smooth.
  3. Core Construction: Foamed in place polyurethane and steel reinforced core with no stiffener face welds.
    - a. Provide 18 gauge steel vertical reinforcements 6 inches apart and welded in place. Foamed in place polyurethane core is chemically bonded to all interior surfaces. No face welding is permitted.
    - b. Thermal properties to rate at a fully operable minimum U-Factor 0.374 and R-Value 2.53, including insulated door, Mercury thermal-break frame and threshold.
    - c. Kerf Type Frames: Thermal properties to rate at a fully operable minimum U-Factor 0.378 and R-Value 2.5, including insulated door, kerf type frame, and threshold.
  4. Frames:
    - a. Type: As indicated in the Door and Frame Schedule
    - b. Face: 2 inch.
    - c. Rabbet:
      - 1) Doors: 1-15/16 inch door
      - 2) Glazed Openings with 1/2 inch glass: 1-15/16 inch
    - d. Stop:
      - 1) Doors: 5/8-inch high
      - 2) Glazed Openings with 1/2 inch glass: 1 inch
    - e. Materials: Metallic-coated, steel sheet, minimum thickness of 0.053 inch (16 ga.) steel sheet.
    - f. Construction:
      - 1) Full profile welded. Grind smooth after welding and touch-up prime paint.
      - 2) Field welding of frames will not be permitted unless approved by the College and Architect.
    - g. Frames that use post-installed jamb anchors shall be furnished with a factory dimpled frame so that anchoring screws are recessed at the adjacent frame surface.
  5. Exposed Finish: Prime.

## 2.4 INTERIOR DOORS AND FRAMES

- A. Extra Heavy-Duty Doors and Frames: SDI A250.8, Level 3. At locations indicated in the Door and Frame Schedule.
1. Physical Performance: Level B according to SDI A250.4.
  2. Doors and transoms:
    - a. Type: As indicated in the Door and Frame Schedule.
    - b. Thickness: 1-3/4 inches.
    - c. Face: Metallic-coated, cold-rolled steel sheet, minimum thickness of 0.053 inch (16 ga.) steel sheet.
    - d. Edge Construction: Model 2, Seamless, continuously welded, dressed smooth.
    - e. Core: Kraft-paper honeycomb.
  3. Frames:
    - a. Type: As indicated in the Door and Frame Schedule

- b. Face: 1-1/2 inch and 2 inch.
  - c. Rabbet:
    - 1) Doors: 1-15/16 inch door
    - 2) Glazed Openings with 1/2 inch glass: 1-15/16 inch
  - d. Stop:
    - 1) Doors: 5/8-inch high
    - 2) Glazed Openings with 1/2 inch glass: 1 inch
  - e. Materials: Metallic-coated, steel sheet, minimum thickness of 0.053 inch (16 ga.) steel sheet.
  - f. Construction:
    - 1) Full profile welded. Grind smooth after welding and touch-up prime paint.
    - 2) Field welding of frames will not be permitted unless approved by the College and Architect.
  - g. Frames that use post-installed jamb anchors shall be furnished with a factory dimpled frame so that anchoring screws are recessed at the adjacent frame surface.
4. Exposed Finish: Prime.

## 2.5 FRAME ANCHORS

- A. Jamb Anchors:
  - 1. Masonry Type: Adjustable strap-and-stirrup or T-shaped anchors to suit frame size, not less than 0.042 inch thick, with corrugated or perforated straps not less than 2 inches wide by 10 inches long; or wire anchors not less than 0.177 inch thick.
  - 2. Stud-Wall Type: Designed to engage stud, welded to back of frames; not less than 0.042 inch thick.
- B. Floor Anchors: Formed from same material as frames, minimum thickness of 0.0451 inch and as follows:
  - 1. Monolithic Concrete Slabs: Clip-type anchors, with two holes to receive fasteners.

## 2.6 STOPS AND MOLDINGS

- A. Fixed Frame Moldings: Formed integral with hollow metal frames, a minimum of 5/8 inch high unless otherwise indicated.

## 2.7 FABRICATION

- A. Tolerances: Fabricate hollow metal work to tolerances indicated in SDI 117.
- B. Hollow-Metal Frames: Where frames are fabricated in sections due to shipping or handling limitations, provide alignment plates or angles at each joint, fabricated of same thickness metal as frames.
  - 1. Floor Anchors: Weld anchors to bottoms of jambs with at least four spot welds per anchor; however, for slip-on drywall frames, provide anchor clips or countersunk holes at bottoms of jambs.
  - 2. Jamb Anchors: Provide number and spacing of anchors as follows:
    - a. Masonry Type: Locate anchors not more than 16 inches from top and bottom of frame. Space anchors not more than 32 inches o.c., to match coursing, and as follows:
      - 1) Two anchors per jamb up to 60 inches high.
      - 2) Three anchors per jamb from 60 to 90 inches high.

- 3) Four anchors per jamb from 90 to 120 inches high.
      - 4) Four anchors per jamb plus one additional anchor per jamb for each 24 inches or fraction thereof above 120 inches high.
    - b. Stud-Wall Type: Locate anchors not more than 18 inches from top and bottom of frame. Space anchors not more than 32 inches o.c. and as follows:
      - 1) Three anchors per jamb up to 60 inches high.
      - 2) Four anchors per jamb from 60 to 90 inches high.
  3. Door Silencers: Drill stops to receive door silencers.
    - a. Single-Door Frames: Three door silencers.
- C. Hardware Preparation: Factory prepare hollow metal work to receive templated mortised hardware according to the Door Hardware Schedule and templates furnished as specified in Section 08 71 00 Door Hardware.
1. Locate hardware as indicated, or if not indicated, according to ANSI/SDI A250.8.
  2. Reinforce doors and frames to receive non-templated, mortised and surface-mounted door hardware.
  3. Comply with applicable requirements in ANSI/SDI A250.6 and ANSI/DHI A115 Series specifications for preparation of hollow metal work for hardware.

## 2.8 STEEL FINISHES

- A. Prime Finish: Apply manufacturer's standard primer immediately after cleaning and pre-treating.
1. Shop Primer: ANSI/SDI A250.10.

## PART 3 - EXECUTION

### 3.1 INSTALLATION

- A. Hollow Metal Frames: Comply with ANSI/SDI A250.11.
1. Set frames accurately in position, plumbed, aligned, and braced securely until permanent anchors are set. After wall construction is complete, remove temporary braces, leaving surfaces smooth and undamaged.
    - a. Remove temporary braces necessary for installation only after frames have been properly set and secured.
    - b. Check plumbness, squareness, and twist of frames as walls are constructed. Shim as necessary to comply with installation tolerances.
  2. Floor Anchors: Provide floor anchors for each jamb and mullion that extends to floor, and secure with post-installed expansion anchors.
  3. Masonry Walls: Coordinate installation of frames to allow for solidly filling space between frames and masonry with grout.
  4. Installation Tolerances: Adjust hollow metal door frames for squareness, alignment, twist, and plumb to the following tolerances:
    - a. Squareness: Plus or minus 1/16 inch, measured at door rabbet on a line 90 degrees from jamb perpendicular to frame head.
    - b. Alignment: Plus or minus 1/16 inch, measured at jambs on a horizontal line parallel to plane of wall.
    - c. Twist: Plus or minus 1/16 inch, measured at opposite face corners of jambs on parallel lines, and perpendicular to plane of wall.
    - d. Plumbness: Plus or minus 1/16 inch, measured at jambs at floor.

- B. Hollow-Metal Doors: Fit hollow-metal doors accurately in frames, within clearances specified below. Shim as necessary.
  - 1. Non-Fire-Rated Steel Doors:
    - a. Between Door and Frame Jambs and Head: 1/8 inch plus or minus 1/32 inch.
    - b. Between Edges of Pairs of Doors: 1/8 inch to 1/4 inch plus or minus 1/32 inch.
    - c. At Bottom of Door: 5/8 inch plus or minus 1/32 inch.
    - d. Between Door Face and Stop: 1/16 inch to 1/8 inch plus or minus 1/32 inch.

### 3.2 ADJUSTING AND CLEANING

- A. Final Adjustments: Check and readjust operating hardware items immediately before final inspection. Leave work in complete and proper operating condition. Remove and replace defective work, including hollow metal work that is warped, bowed, or otherwise unacceptable.
- B. Prime-Coat Touchup: Immediately after erection, sand smooth rusted or damaged areas of prime coat and apply touchup of compatible air-drying, rust-inhibitive primer.

**END OF SECTION 08 11 13**

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**SECTION 08 33 20 – ROLLING COUNTER DOORS**

**PART 1 GENERAL**

1.1 SECTION INCLUDES

- A. Rolling Counter Doors, manually operated.

1.2 RELATED SECTIONS

- A. Section 08 71 00 - Door Hardware
- B. Section 09 91 13 - Painting: Field applied finish.

1.3 REFERENCES

- A. ASTM A 653 - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
- B. ASTM A 924 - Standard Specification for General Requirements for Steel Sheet, Metallic-Coated by the Hot-Dip Process.

1.4 SUBMITTALS

- A. Submit under provisions of Section 01 33 00.
- B. Product Data: Manufacturer's data sheets on each product to be used, including:
  - 1. Preparation instructions and recommendations.
  - 2. Storage and handling requirements and recommendations.
  - 3. Details of construction and fabrication.
  - 4. Installation methods.
- C. Shop Drawings: Include detailed plans, elevations, details of framing members, required clearances, anchors, and accessories. Include relationship with adjacent construction.
- D. Manufacturer's Certificates: Certify products meet or exceed specified requirements.

1.5 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in performing Work of this section with a minimum of five years experience in the fabrication and installation of security closures.
- B. Installer Qualifications: Company specializing in performing Work of this section with minimum three years and approved by manufacturer.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Store products in manufacturer's unopened packaging until ready for installation.
- B. Protect materials from exposure to moisture. Do not deliver until after wet work is complete and dry.
- C. Store materials in a dry, warm, ventilated weathertight location.

## 1.7 PROJECT CONDITIONS

- A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.

## 1.8 COORDINATION

- A. Coordinate Work with other operations and installation of adjacent finish materials to avoid damage to installed materials.

## 1.9 WARRANTY

- A. Warranty: Manufacturer's limited door warranty for 2 years for all parts and components.

## PART 2 PRODUCTS

## 2.1 MANUFACTURERS

- A. Acceptable Manufacturer: Overhead Door Corporation, 2501 S. State Hwy. 121, Suite 200, Lewisville, TX 75067. ASD. Tel. Toll Free: (800) 275-3290. Phone: (469) 549-7100. Fax: (972) 906-1499. Web Site: [www.overheaddoor.com](http://www.overheaddoor.com). E-mail: info@overheaddoor.com.
- B. Substitutions: Approved Equal.
- C. Requests for substitutions will be considered in accordance with provisions of Section 01 60 00.

## 2.2 ROLLING STEEL COUNTER DOORS

- A. Galvanized Steel Counter Doors: Overhead Door Corporation, 650 Series.
  - 1. Wall Mounting Condition:
    - a. Face-of-wall mounting.
  - 2. Curtain: Interlocking slats, Type F-158 fabricated of 22 gauge galvanized steel. Endlocks attached to alternate slats to maintain curtain alignment and prevent lateral slat movement.
  - 3. Finish:
    - a. Non-galvanized exposed ferrous surfaces for guides, bottom bar and head plates shall receive one coat of rust-inhibitive primer.
  - 4. Bottom Bar:
    - a. Single primed steel angle bottom bar with weatherstrip.
  - 5. Guides: Extruded aluminum.
  - 6. Brackets: Steel plate to support counterbalance, curtain and hood.
  - 7. Finish; Bottom Bar, Guides, Brackets:
    - a. Finish: Black powder coat finish.
  - 8. Counterbalance: Helical torsion spring type housed in a steel tube or pipe barrel.
  - 9. Hood: Provided with intermediate support brackets as required and fabricated of:
    - a. Stainless steel.
  - 10. Operation:
    - a. Manual push up.

11. Locking:
  - a. Slide bolt locks suitable for use with padlock.

### **PART 3 EXECUTION**

#### **3.1 EXAMINATION**

- A. Verify opening sizes, tolerances and conditions are acceptable.
- B. Examine conditions of substrates, supports, and other conditions under which this work is to be performed.
- C. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

#### **3.2 PREPARATION**

- A. Clean surfaces thoroughly prior to installation.
- B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

#### **3.3 INSTALLATION**

- A. Install in accordance with manufacturer's instructions.
- B. Use anchorage devices to securely fasten assembly to wall construction and building framing without distortion or stress.
- C. Securely and rigidly brace components suspended from structure. Secure guides to structural members only.
- D. Fit and align assembly including hardware; level and plumb, to provide smooth operation.
- E. Coordinate installation of electrical service with Section 16150. Complete wiring from disconnect to unit components.
- F. Coordinate installation of sealants and backing materials at frame perimeter as specified in Section 07 92 00.
- G. Install perimeter trim and closures.

#### **3.4 ADJUSTING**

- A. Test for proper operation and adjust as necessary to provide proper operation without binding or distortion.
- B. Adjust hardware and operating assemblies for smooth and noiseless operation.

#### **3.5 CLEANING**

- A. Clean curtain and components using non-abrasive materials and methods recommended by manufacturer.

- B. Remove labels and visible markings.
- C. Touch-up, repair or replace damaged products before Substantial Completion.

3.6 PROTECTION

- A. Protect installed products until completion of project.

**END OF SECTION 08 33 20**

**SECTION 08 53 13 – VINYL SLIDING WINDOWS**

**PART 1 GENERAL**

1.1 SECTION INCLUDES

- A. Vinyl sliding windows.
- B. Vinyl fixed windows.

1.2 RELATED REQUIREMENTS

- A. Section 07 92 00 – Joint Sealants: Sealants.

1.3 SUBMITTALS

- A. Comply with Section 01 33 00 – Submittal Procedures.
- B. Product Data: Submit manufacturer's product data, including installation instructions.
- C. Manufacturer's Certification: Submit manufacturer's certification that materials comply with specified requirements and are suitable for intended application.
- D. Cleaning and Maintenance Instructions: Submit manufacturer's cleaning and maintenance instructions.
- E. Warranty Documentation: Submit manufacturer's standard warranty.

1.4 QUALITY ASSURANCE

- A. Installer's Qualifications:
  - 1. Installer regularly engaged, for past 5 years, in installation of vinyl sliding windows of similar type to that specified.
  - 2. Employ persons trained for installation of vinyl sliding windows.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Delivery:
  - 1. Deliver windows to site undamaged in manufacturer's or sales branch's original, unopened containers and packaging, with labels clearly identifying manufacturer and product name.
  - 2. Include installation instructions.
- B. Storage and Handling:
  - 1. Store and handle windows in accordance with manufacturer's instructions.
  - 2. Store windows off ground and under cover.
  - 3. Provide full support under framework when storing, handling, and installing windows.
  - 4. Allow sufficient spacing between windows during storage for ventilation.
  - 5. Do not lift windows by head member only.
  - 6. Protect windows from weather, direct sunlight, and construction activities.
  - 7. Protect windows and finish during handling and installation to prevent damage.

**PART 2 PRODUCTS**

## 2.1 MANUFACTURER

- A. Pella Corporation, 102 Main Street, Pella, Iowa 50219. Toll Free 800-54-PELLA. Phone 641-621-1000. Website [www.pella.com](http://www.pella.com).

## 2.2 PERFORMANCE REQUIREMENTS

- A. Standard Performance:
1. Meets or exceeds AAMA/WDMA/CSA 101/I.S.2/A440 Ratings: R-PG25 to R-PG35, WDMA Hallmark Certified.
  2. Unit assembly shall withstand both positive and negative uniform static air pressure difference without damage when tested according to ASTM E 330.
  3. Air Infiltration, 1.57 psf wind pressure: 0.30 cfm/ft<sup>2</sup> of frame.
  4. Design Pressure: 25 to 35 psf.
  5. Water Penetration Resistance: 3.75 to 5.43 psf.
- B. Forced Entry Resistance, ASTM F 588, Minimum Security Grade: 10.
- C. Maximum Operating Force:
1. Initiate Motion: 35 lbs.
  2. Maintain Motion: 20 lbs.
- D. Meets U.S. ENERGY STAR guidelines.

## 2.3 VINYL SLIDING WINDOWS

- A. Vinyl Sliding & Fixed Windows: Pella "250 Series".
- B. Frame:
1. Interior and Exterior Frame Surfaces: Extruded, rigid, polyvinyl chloride (uPVC) complying with AAMA 303, having minimum ignition temperature 824 degrees F. when tested in accordance with ASTM D 1929.
  2. Overall Frame Depth: 3-1/4 inches.
  3. Frame Members: Mitered and heat fused to provide fully welded corner assembly.
  4. Sill: Fitted with weeps.
  5. Frame Type:
    - a. Setback Nail Fin, 1-1/8 inches: For 2-1/8-inch wall depth. Use in wood-framed openings.
    - b. Block Frame: 3-1/4-inch wall depth. Use in CMU rough openings.
- C. Sash:
1. Sash Members:
    - a. Extruded, rigid, uPVC complying with AAMA 303, having minimum ignition temperature 824 degrees F. when tested in accordance with ASTM D 1929.
    - b. Mitered and heat fused to provide fully welded corner assembly.
  2. Integral extruded
  3. Contains sealed insulating glass.
- D. Glazing:
1. Float Glass: ASTM C 1036.
    - a. Glass Type: [Annealed] [Tempered safety glass, ASTM C 1048].
  2. Exterior tape-glazed sealed insulating glass.
  3. Dual-Pane Insulating Glass:

- a. Total Thickness: 11/16 inch.
- b. Advanced Low-E coated.

E. Weatherstripping:

1. Sash: Weatherstripped around sash perimeter with fin-type, pile weatherstripping.

2.4 HARDWARE

A. Locks: Factory-installed, zinc-die-cast, self-aligning, [cam-action locks] [autolocks] located on the interlocker.

1. Sash Locks: Two locks installed on windows with minimum of 36 inches frame height

B. Rollers: Vent sash are equipped with two nylon roller housings containing two nylon rollers each.

C. Hardware Finish: Match window interior.

2.5 SCREENS

A. Screens:

1. Compliance:
  - a. ASTM D 3656.
  - b. SMA 1201
2. Screen Cloth: Black, vinyl-coated, 18/16 mesh, fiberglass screen cloth.
3. Set in rollformed coil aluminum frame and fitted to exterior of windows.
4. Screens for window with frame height  $\leq 51\text{-}1/2"$  have one plunger per side, screens for windows with frame height  $> 51\text{-}1/2"$  have two plungers per side. Screens for windows with frame width  $> 39"$  or frame height  $> 53\text{-}1/2"$  have a screen spreader bar. Supplied complete with all necessary hardware.
5. Screen Frame Finish: Baked enamel.
  - a. Color: Match window exterior.

2.6 TOLERANCES

A. Windows shall accommodate the following opening tolerances:

1. Horizontal Dimensions Between High and Low Points: Plus 1/4 inch, minus 0 inch.
2. Width Dimensions: Plus 1/4 inch, minus 0 inch.
3. Building Columns or Masonry Openings: Plus or minus 1/4 inch from plumb.

2.7 FINISH

A. Exposed uPVC Surfaces: Smooth, glossy, and uniform in appearance.

B. Frame Colors:

1. Exterior/Interior:
  - a. White: Integral color extruded throughout profiles.

2.8 INSTALLATION ACCESSORIES

A. Flashing/Sealant Tape: Pella "SmartFlash".

1. Aluminum-foil-backed butyl window and door flashing tape.
2. Maximum Total Thickness: 0.013 inch.
3. UV resistant.
4. Verify sealant compatibility with sealant manufacturer.

- B. Interior Insulating-Foam Sealant: Low-expansion, low-pressure polyurethane insulating window and door foam sealant.
- C. Exterior Perimeter Sealant: "Pella Window and Door Installation Sealant" or equivalent high quality, multi-purpose sealant as specified in the joints sealant section.

### **PART 3 EXECUTION**

#### **3.1 EXAMINATION**

- A. Examine rough opening to receive vinyl sliding windows.
  - 1. Verify rough opening is plumb, level, square, and of proper dimensions.
  - 2. Verify a minimum of 1-1/2 inches of solid wood blocking is installed around perimeter of rough opening.
- B. Notify Architect of conditions that would adversely affect installation or subsequent use.
- C. Do not proceed with installation until unsatisfactory conditions are corrected.

#### **3.2 INSTALLATION**

- A. Install vinyl sliding windows in accordance with manufacturer's instructions.
- B. Install windows plumb, level, square, and without distortion.
- C. Install windows to be weathertight.
- D. Install windows to be freely operating.
- E. Verify proper operation of operating hardware.
- F. Integrate window installation with exterior weather-resistant barrier using flashing/sealant tape.
  - 1. Apply and integrate flashing/sealant tape with weather-resistant barrier using watershed principles in accordance with window manufacturer's instructions.
- G. Seal windows to exterior wall cladding with sealant and related backing materials at perimeter of assembly.
- H. Place interior seal around vinyl window perimeter to maintain continuity of building thermal and air barrier using backer rod and sealant.
- I. Leave windows closed and locked.

#### **3.3 CLEANING**

- A. Clean vinyl sliding windows in accordance with manufacturer's instructions.
- B. Do not use harsh cleaning materials or methods that could damage finish, vinyl, or glass.
- C. Remove labels and visible markings.
- D. Keep window tracks clear of dirt and debris.
- E. Keep weep holes open and clear of obstructions.

3.4 PROTECTION

- A. Protect installed vinyl sliding windows to ensure that, except for normal weathering, windows will be without damage or deterioration at time of substantial completion.

**END OF SECTION 08 53 13**

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**SECTION 08 71 00 - DOOR HARDWARE****PART 1 - GENERAL**

## 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

## 1.2 SUMMARY

- A. This Section includes commercial door hardware for the following:
  - 1. Swinging doors.
- B. Door hardware includes, but is not necessarily limited to, the following:
  - 1. Mechanical door hardware.
- C. Related Sections:
  - 1. Division 08 Section "Hollow Metal Doors and Frames".
- D. Codes and References: Comply with the version year adopted by the Authority Having Jurisdiction.
  - 1. ANSI A117.1 - Accessible and Usable Buildings and Facilities.
  - 2. ICC/IBC - International Building Code.
  - 3. NFPA 70 - National Electrical Code.
  - 4. NFPA 80 - Fire Doors and Windows.
  - 5. NFPA 101 - Life Safety Code.
  - 6. NFPA 105 - Installation of Smoke Door Assemblies.
  - 7. State Building Codes, Local Amendments.
- E. Standards: All hardware specified herein shall comply with the following industry standards as applicable. Any undated reference to a standard shall be interpreted as referring to the latest edition of that standard:
  - 1. ANSI/BHMA Certified Product Standards - A156 Series.
  - 2. UL10C - Positive Pressure Fire Tests of Door Assemblies.
  - 3. ANSI/UL 294 - Access Control System Units.
  - 4. UL 305 - Panic Hardware.
  - 5. ANSI/UL 437- Key Locks.

## 1.3 SUBMITTALS

- A. Product Data: Manufacturer's product data sheets including installation details, material descriptions, dimensions of individual components and profiles, operational descriptions and finishes.
- B. Door Hardware Schedule: Prepared by or under the supervision of supplier, detailing fabrication and assembly of door hardware, as well as procedures and diagrams. Coordinate the final Door Hardware Schedule with doors, frames, and related work to ensure proper size, thickness, hand, function, and finish of door hardware.
1. Format: Comply with scheduling sequence and vertical format in DHI's "Sequence and Format for the Hardware Schedule."
  2. Organization: Organize the Door Hardware Schedule into door hardware sets indicating complete designations of every item required for each door or opening. Organize door hardware sets in same order as in the Door Hardware Sets at the end of Part 3. Submittals that do not follow the same format and order as the Door Hardware Sets will be rejected and subject to resubmission.
  3. Content: Include the following information:
    - a. Type, style, function, size, label, hand, and finish of each door hardware item.
    - b. Manufacturer of each item.
    - c. Fastenings and other pertinent information.
    - d. Location of door hardware set, cross-referenced to Drawings, both on floor plans and in door and frame schedule.
    - e. Explanation of abbreviations, symbols, and codes contained in schedule.
    - f. Mounting locations for door hardware.
    - g. Door and frame sizes and materials.
    - h. Warranty information for each product.
  4. Submittal Sequence: Submit the final Door Hardware Schedule at earliest possible date, particularly where approval of the Door Hardware Schedule must precede fabrication of other work that is critical in the Project construction schedule. Include Product Data, Samples, Shop Drawings of other work affected by door hardware, and other information essential to the coordinated review of the Door Hardware Schedule.
- C. Keying Schedule: After a keying meeting with the owner has taken place prepare a separate keying schedule detailing final instructions. Submit the keying schedule in electronic format. Include keying system explanation, door numbers, key set symbols, hardware set numbers and special instructions. Owner must approve submitted keying schedule prior to the ordering of permanent cylinders/cores.
- D. Informational Submittals:
1. Product Test Reports: Indicating compliance with cycle testing requirements, based on evaluation of comprehensive tests performed by manufacturer and witnessed by a qualified independent testing agency.
- E. Operating and Maintenance Manuals: Provide manufacturers operating and maintenance manuals for each item comprising the complete door hardware installation in quantity as required in Division 01, Closeout Procedures.

## 1.4 QUALITY ASSURANCE

- A. Manufacturers Qualifications: Engage qualified manufacturers with a minimum 5 years of documented experience in producing hardware and equipment similar to that indicated for this Project and that have a proven record of successful in-service performance.
- B. Certified Products: Where specified, products must maintain a current listing in the Builders Hardware Manufacturers Association (BHMA) Certified Products Directory (CPD).
- C. Installer Qualifications: A minimum 3 years documented experience installing both standard and electrified door hardware similar in material, design, and extent to that indicated for this Project and whose work has resulted in construction with a record of successful in-service performance.
- D. Door Hardware Supplier Qualifications: Experienced commercial door hardware distributors with a minimum 5 years documented experience supplying both mechanical and electromechanical hardware installations comparable in material, design, and extent to that indicated for this Project. Supplier recognized as a factory direct distributor by the manufacturers of the primary materials with a warehousing facility in Project's vicinity. Supplier to have on staff a certified Architectural Hardware Consultant (AHC) available during the course of the Work to consult with Contractor, Architect, and Owner concerning both standard and electromechanical door hardware and keying.
- E. Source Limitations: Obtain each type and variety of door hardware specified in this section from a single source unless otherwise indicated.
- F. Each unit to bear third party permanent label demonstrating compliance with the referenced standards.
- G. Keying Conference: Conduct conference to comply with requirements in Division 01 Section "Project Meetings." Keying conference to incorporate the following criteria into the final keying schedule document:
  - 1. Function of building, purpose of each area and degree of security required.
  - 2. Plans for existing and future key system expansion.
  - 3. Requirements for key control storage and software.
  - 4. Installation of permanent keys, cylinder cores and software.
  - 5. Address and requirements for delivery of keys.
- H. Pre-Submittal Conference: Conduct coordination conference in compliance with requirements in Division 01 Section "Project Meetings" with attendance by representatives of Supplier(s), Installer(s), and Contractor(s) to review proper methods and the procedures for receiving, handling, and installing door hardware.
  - 1. Prior to installation of door hardware, conduct a project specific training meeting to instruct the installing contractors' personnel on the proper installation and adjustment of their respective products. Product training to be attended by installers of door hardware (including electromechanical hardware) for aluminum, hollow metal and wood doors. Training will include the use of installation manuals, hardware schedules, templates and physical product samples as required.
  - 2. Inspect and discuss electrical roughing-in, power supply connections, and other preparatory work performed by other trades.
  - 3. Review sequence of operation narratives for each unique access controlled opening.
  - 4. Review and finalize construction schedule and verify availability of materials.

5. Review the required inspecting, testing, commissioning, and demonstration procedures

- I. At completion of installation, provide written documentation that components were applied to manufacturer's instructions and recommendations and according to approved schedule.

#### 1.5 DELIVERY, STORAGE, AND HANDLING

- A. Inventory door hardware on receipt and provide secure lock-up and shelving for door hardware delivered to Project site. Do not store electronic access control hardware, software or accessories at Project site without prior authorization.
- B. Tag each item or package separately with identification related to the final Door Hardware Schedule, and include basic installation instructions with each item or package.
- C. Deliver, as applicable, permanent keys, cylinders, cores, access control credentials, software and related accessories directly to Owner via registered mail or overnight package service. Instructions for delivery to the Owner shall be established at the "Keying Conference".

#### 1.6 COORDINATION

- A. Templates: Obtain and distribute to the parties involved templates for doors, frames, and other work specified to be factory prepared for installing standard and electrified hardware. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing hardware to comply with indicated requirements.
- B. Door and Frame Preparation: Doors and corresponding frames are to be prepared, reinforced and pre-wired (if applicable) to receive the installation of the specified electrified, monitoring, signaling and access control system hardware without additional in-field modifications.

#### 1.7 WARRANTY

- A. General Warranty: Reference Division 01, General Requirements. Special warranties specified in this Article shall not deprive Owner of other rights Owner may have under other provisions of the Contract Documents and shall be in addition to, and run concurrent with, other warranties made by Contractor under requirements of the Contract Documents.
- B. Warranty Period: Written warranty, executed by manufacturer(s), agreeing to repair or replace components of standard and electrified door hardware that fails in materials or workmanship within specified warranty period after final acceptance by the Owner. Failures include, but are not limited to, the following:
  1. Structural failures including excessive deflection, cracking, or breakage.
  2. Faulty operation of the hardware.
  3. Deterioration of metals, metal finishes, and other materials beyond normal weathering.
  4. Electrical component defects and failures within the systems operation.
- C. Standard Warranty Period: One year from date of Substantial Completion, unless otherwise indicated.
- D. Special Warranty Periods:

1. Ten years for mortise locks and latches.
2. Ten years for manual overhead door closer bodies.

## 1.8 MAINTENANCE SERVICE

- A. Maintenance Tools and Instructions: Furnish a complete set of specialized tools and maintenance instructions as needed for Owner's continued adjustment, maintenance, and removal and replacement of door hardware.

## PART 2 - PRODUCTS

### 2.1 SCHEDULED DOOR HARDWARE

- A. General: Provide door hardware for each door to comply with requirements in Door Hardware Sets and each referenced section that products are to be supplied under.
- B. Designations: Requirements for quantity, item, size, finish or color, grade, function, and other distinctive qualities of each type of door hardware are indicated in the Door Hardware Sets at the end of Part 3. Products are identified by using door hardware designations, as follows:
1. Named Manufacturer's Products: Product designation and manufacturer are listed for each door hardware type required for the purpose of establishing requirements. Manufacturers' names are abbreviated in the Door Hardware Schedule.
- C. Substitutions: Requests for substitution and product approval for inclusive mechanical and electromechanical door hardware in compliance with the specifications must be submitted in writing and in accordance with the procedures and time frames outlined in Division 01, Substitution Procedures. Approval of requests is at the discretion of the architect, owner, and their designated consultants.

### 2.2 HANGING DEVICES

- A. Hinges: ANSI/BHMA A156.1 certified butt hinges with number of hinge knuckles and other options as specified in the Door Hardware Sets.
1. Quantity: Provide the following hinge quantity:
    - a. Two Hinges: For doors with heights up to 60 inches.
    - b. Three Hinges: For doors with heights 61 to 90 inches.
    - c. Four Hinges: For doors with heights 91 to 120 inches.
    - d. For doors with heights more than 120 inches, provide 4 hinges, plus 1 hinge for every 30 inches of door height greater than 120 inches.
  2. Hinge Size: Provide the following, unless otherwise indicated, with hinge widths sized for door thickness and clearances required:
    - a. Widths up to 3'0": 4-1/2" standard or heavy weight as specified.
    - b. Sizes from 3'1" to 4'0": 5" standard or heavy weight as specified.

3. Hinge Weight and Base Material: Unless otherwise indicated, provide the following:
  - a. Exterior Doors: Heavy weight, non-ferrous, ball bearing or oil impregnated bearing hinges unless Hardware Sets indicate standard weight.
  - b. Interior Doors: Standard weight, steel, ball bearing or oil impregnated bearing hinges unless Hardware Sets indicate heavy weight.
4. Hinge Options: Comply with the following:
  - a. Non-removable Pins: With the exception of electric through wire hinges, provide set screw in hinge barrel that, when tightened into a groove in hinge pin, prevents removal of pin while door is closed; for the all out-swinging lockable doors.
5. Manufacturers:
  - a. Hager Companies (HA).
  - b. Ives (IV).
  - c. McKinney Products; ASSA ABLOY Architectural Door Accessories (MK) - MacPro Series.

### 2.3 CYLINDERS AND KEYING

- A. General: Cylinder manufacturer to have minimum (10) years experience designing secured master key systems and have on record a published security keying system policy.
  1. Manufacturers:
    - a. Match Existing, Field Verify.
- B. Cylinder Types: Original manufacturer cylinders able to supply the following cylinder formats and types:
  1. Threaded mortise cylinders with rings and cams to suit hardware application.
  2. Rim cylinders with back plate, flat-type vertical or horizontal tailpiece, and raised trim ring.
  3. Bored or cylindrical lock cylinders with tailpieces as required to suit locks.
  4. Tubular deadlocks and other auxiliary locks.
  5. Mortise and rim cylinder collars to be solid and recessed to allow the cylinder face to be flush and be free spinning with matching finishes.
  6. Keyway: Match Facility Standard.
- C. Keying System: Each type of lock and cylinders to be factory keyed.
  1. Supplier shall conduct a "Keying Conference" to define and document keying system instructions and requirements.
  2. Furnish factory cut, nickel-silver large bow permanently inscribed with a visual key control number as directed by Owner.
  3. Existing System: Field verify and key cylinders to match Owner's existing system.
- D. Key Quantity: Provide the following minimum number of keys:
  1. Change Keys per Cylinder: Two (2)
  2. Master Keys (per Master Key Level/Group): Five (5).
  3. Construction Keys (where required): Ten (10).

## E. Key Registration List (Bitting List):

1. Provide keying transcript list to Owner's representative in the proper format for importing into key control software.
2. Provide transcript list in writing or electronic file as directed by the Owner.

## 2.4 MECHANICAL LOCKS AND LATCHING DEVICES

## A. Mortise Locksets, Grade 1 (Heavy Duty): ANSI/BHMA A156.13, Series 1000, Operational Grade 1 Certified Products Directory (CPD) listed. Locksets are to be manufactured with a corrosion resistant steel case and be field-reversible for handing without disassembly of the lock body.

1. Manufacturers:
  - a. Corbin Russwin Hardware (RU) - ML2000 Series.
  - b. Schlage (SC) - L9000 Series.
  - c. Yale Commercial(YA) - 8800FL Series.

## 2.5 LOCK AND LATCH STRIKES

## A. Strikes: Provide manufacturer's standard strike with strike box for each latch or lock bolt, with curved lip extended to protect frame, finished to match door hardware set, unless otherwise indicated, and as follows:

1. Flat-Lip Strikes: For locks with three-piece antifriction latchbolts, as recommended by manufacturer.
2. Extra-Long-Lip Strikes: For locks used on frames with applied wood casing trim.
3. Aluminum-Frame Strike Box: Provide manufacturer's special strike box fabricated for aluminum framing.
4. Double-lipped strikes: For locks at double acting doors. Furnish with retractable stop for rescue hardware applications.

## B. Standards: Comply with the following:

1. Strikes for Mortise Locks and Latches: BHMA A156.13.
2. Strikes for Bored Locks and Latches: BHMA A156.2.
3. Strikes for Auxiliary Deadlocks: BHMA A156.36.
4. Dustproof Strikes: BHMA A156.16.

## 2.6 DOOR CLOSERS

## A. All door closers specified herein shall meet or exceed the following criteria:

1. General: Door closers to be from one manufacturer, matching in design and style, with the same type door preparations and templates regardless of application or spring size. Closers to be non-handed with full sized covers.
2. Standards: Closers to comply with UL-10C for Positive Pressure Fire Test and be U.L. listed for use of fire rated doors.

3. Size of Units: Comply with manufacturer's written recommendations for sizing of door closers depending on size of door, exposure to weather, and anticipated frequency of use. Where closers are indicated for doors required to be accessible to the Americans with Disabilities Act, provide units complying with ANSI ICC/A117.1.
  4. Closer Accessories: Provide door closer accessories including custom templates, special mounting brackets, spacers and drop plates as required for proper installation. Provide through-bolt and security type fasteners as specified in the hardware sets.
- B. Door Closers, Surface Mounted (Commercial Duty): ANSI/BHMA 156.4, Grade 1 Certified Products Directory (CPD) listed surface mounted, institutional grade door closers with complete spring power adjustment, sizes 1 thru 6; and fully operational adjustable according to door size, frequency of use, and opening force. Closers to be rack and pinion type, with adjustable backcheck, closing sweep, and latch speed control valves. Provide non-handed units standard.
1. Manufacturers:
    - a. LCN Closers (LC) – 1460 Series.
    - b. Norton Door Controls (NO) - 8500 Series.
    - c. Yale Commercial (YA) - 3500 Series.

## 2.7 ARCHITECTURAL TRIM

### A. Door Protective Trim

1. General: Door protective trim units to be of type and design as specified below or in the Hardware Sets.
2. Size: Fabricate protection plates (kick, armor, or mop) not more than 2" less than door width (LDW) on stop side of single doors and 1" LDW on stop side of pairs of doors, and not more than 1" less than door width on pull side. Coordinate and provide proper width and height as required where conflicting hardware dictates. Height to be as specified in the Hardware Sets.
3. Where plates are applied to fire rated doors with the top of the plate more than 16" above the bottom of the door, provide plates complying with NFPA 80. Consult manufacturer's catalog and template book for specific requirements for size and applications.
4. Protection Plates: ANSI/BHMA A156.6 certified protection plates (kick, armor, or mop), fabricated from the following:
  - a. Stainless Steel: 300 grade, 050-inch thick.
5. Options and fasteners: Provide manufacturer's designated fastener type as specified in the Hardware Sets. Provide countersunk screw holes.
6. Manufacturers:
  - a. Hager Companies (HA).
  - b. Rockwood Products; ASSA ABLOY Architectural Door Accessories (RO).
  - c. Trimco (TC).

## 2.8 DOOR STOPS AND HOLDERS

- A. General: Door stops and holders to be of type and design as specified below or in the Hardware Sets.
- B. Overhead Door Stops and Holders: ANSI/BHMA A156.8, Grade 1 Certified Products Directory (CPD) listed overhead stops and holders to be surface or concealed types as indicated in Hardware Sets. Track, slide, arm and jamb bracket to be constructed of extruded bronze and shock absorber spring of heavy tempered steel. Provide non-handed design with mounting brackets as required for proper operation and function.
  - 1. Manufacturers:
    - a. dormakaba (DO).
    - b. Rixson Door Controls (RF).
    - c. Rockwood Products; ASSA ABLOY Architectural Door Accessories (RO).
- C.
- D. Door Stops and Bumpers: ANSI/BHMA A156.16, Grade 1 certified door stops and wall bumpers. Provide wall bumpers, either convex or concave types with anchorage as indicated, unless floor or other types of door stops are specified in Hardware Sets. Do not mount floor stops where they will impede traffic. Where floor or wall bumpers are not appropriate, provide overhead type stops and holders.
  - 1. Manufacturers:
    - a. Hager Companies (HA).
    - b. Rockwood Products; ASSA ABLOY Architectural Door Accessories (RO).
    - c. Trimco (TC).

## 2.9 ARCHITECTURAL SEALS

- A. General: Thresholds, weatherstripping, and gasket seals to be of type and design as specified below or in the Hardware Sets. Provide continuous weatherstrip gasketing on exterior doors and provide smoke, light, or sound gasketing on interior doors where indicated. At exterior applications provide non-corrosive fasteners and elsewhere where indicated.
- B. Smoke Labeled Gasketing: Assemblies complying with NFPA 105 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for smoke control ratings indicated, based on testing according to UL 1784.
  - 1. Provide smoke labeled perimeter gasketing at all smoke labeled openings.
- C. Fire Labeled Gasketing: Assemblies complying with NFPA 80 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for fire ratings indicated, based on testing according to UL-10C.
  - 1. Provide intumescent seals as indicated to meet UL10C Standard for Positive Pressure Fire Tests of Door Assemblies, and NPFA 252, Standard Methods of Fire Tests of Door Assemblies.

- D. Sound-Rated Gasketing: Assemblies that are listed and labeled by a testing and inspecting agency, for sound ratings indicated.
- E. Replaceable Seal Strips: Provide only those units where resilient or flexible seal strips are easily replaceable and readily available from stocks maintained by manufacturer.
- F. Manufacturers:
  - 1. National Guard Products (NG).
  - 2. Pemko Products; ASSA ABLOY Architectural Door Accessories (PE).
  - 3. Reese Enterprises, Inc. (RE).

## 2.10 FABRICATION

- A. Fasteners: Provide door hardware manufactured to comply with published templates generally prepared for machine, wood, and sheet metal screws. Provide screws according to manufacturers recognized installation standards for application intended.

## 2.11 FINISHES

- A. Standard: Designations used in the Hardware Sets and elsewhere indicate hardware finishes complying with ANSI/BHMA A156.18, including coordination with traditional U.S. finishes indicated by certain manufacturers for their products.
- B. Provide quality of finish, including thickness of plating or coating (if any), composition, hardness, and other qualities complying with manufacturer's standards, but in no case less than specified by referenced standards for the applicable units of hardware
- C. Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine scheduled openings, with Installer present, for compliance with requirements for installation tolerances, labeled fire door assembly construction, wall and floor construction, and other conditions affecting performance.
- B. Notify architect of any discrepancies or conflicts between the door schedule, door types, drawings and scheduled hardware. Proceed only after such discrepancies or conflicts have been resolved in writing.

### 3.2 PREPARATION

- A. Hollow Metal Doors and Frames: Comply with ANSI/DHI A115 series.

- B. Wood Doors: Comply with ANSI/DHI A115-W series.

### 3.3 INSTALLATION

- A. Install each item of mechanical and electromechanical hardware and access control equipment to comply with manufacturer's written instructions and according to specifications.
  - 1. Installers are to be trained and certified by the manufacturer on the proper installation and adjustment of fire, life safety, and security products including: hanging devices; locking devices; closing devices; and seals.
- B. Mounting Heights: Mount door hardware units at heights indicated in following applicable publications, unless specifically indicated or required to comply with governing regulations:
  - 1. Standard Steel Doors and Frames: DHI's "Recommended Locations for Architectural Hardware for Standard Steel Doors and Frames."
  - 2. Wood Doors: DHI WDHS.3, "Recommended Locations for Architectural Hardware for Wood Flush Doors."
  - 3. Where indicated to comply with accessibility requirements, comply with ANSI A117.1 "Accessibility Guidelines for Buildings and Facilities."
  - 4. Provide blocking in drywall partitions where wall stops or other wall mounted hardware is located.
- C. Retrofitting: Install door hardware to comply with manufacturer's published templates and written instructions. Where cutting and fitting are required to install door hardware onto or into surfaces that are later to be painted or finished in another way, coordinate removal, storage, and reinstallation of surface protective trim units with finishing work specified in Division 9 Sections. Do not install surface-mounted items until finishes have been completed on substrates involved.
- D. Thresholds: Set thresholds for exterior and acoustical doors in full bed of sealant complying with requirements specified in Division 7 Section "Joint Sealants."
- E. Storage: Provide a secure lock up for hardware delivered to the project but not yet installed. Control the handling and installation of hardware items so that the completion of the work will not be delayed by hardware losses before and after installation.

### 3.4 FIELD QUALITY CONTROL

- A. Field Inspection (Punch Report): Reference Division 01 Sections "Closeout Procedures". Produce project punch report for each installed door opening indicating compliance with approved submittals and verification hardware is properly installed, operating and adjusted. Include list of items to be completed and corrected, indicating the reasons or deficiencies causing the Work to be incomplete or rejected.
  - 1. Organization of List: Include separate Door Opening and Deficiencies and Corrective Action Lists organized by Mark, Opening Remarks and Comments, and related Opening Images and Video Recordings.
  - 2. Submit documentation of incomplete items in the following formats:
    - a. PDF electronic file.

- b. Electronic formatted file integrated with the Openings Studio™ door opening management software platform.

### 3.5 ADJUSTING

- A. Initial Adjustment: Adjust and check each operating item of door hardware and each door to ensure proper operation or function of every unit. Replace units that cannot be adjusted to operate as intended. Adjust door control devices to compensate for final operation of heating and ventilating equipment and to comply with referenced accessibility requirements.

### 3.6 CLEANING AND PROTECTION

- A. Protect all hardware stored on construction site in a covered and dry place. Protect exposed hardware installed on doors during the construction phase. Install any and all hardware at the latest possible time frame.
- B. Clean adjacent surfaces soiled by door hardware installation.
- C. Clean operating items as necessary to restore proper finish. Provide final protection and maintain conditions that ensure door hardware is without damage or deterioration at time of owner occupancy.

### 3.7 DEMONSTRATION

- A. Instruct Owner's maintenance personnel to adjust, operate, and maintain mechanical and electromechanical door hardware.

### 3.8 DOOR HARDWARE SETS

- A. The hardware sets represent the design intent and direction of the owner and architect. They are a guideline only and should not be considered a detailed hardware schedule. Discrepancies, conflicting hardware and missing items should be brought to the attention of the architect with corrections made prior to the bidding process. Omitted items not included in a hardware set should be scheduled with the appropriate additional hardware required for proper application and functionality.
  - 1. Quantities listed are for each pair of doors, or for each single door.
  - 2. The supplier is responsible for handling and sizing all products.
  - 3. Where multiple options for a piece of hardware are given in a single line item, the supplier shall provide the appropriate application for the opening.
- B. Manufacturer's Abbreviations:

- 1. MK - McKinney
- 2. YA - Yale

3. RO - Rockwood
4. PE - Pemko

### Hardware Sets

#### Set: 1.0

Doors: 100, 102

Description: Exterior Inswing - Storeroom Function x Overhead Stop

3 Hinge, Full Mortise	MPB91 4-1/2" x 4-1/2"	US32D	MK
1 Storeroom Lock	CRR 8805FL LC	626	YA
1 Mortise Cylinder	Match Owner Key System	626	YA
1 Conc Overhead Stop	6-336	630	RF
1 Surface Closer	3501	689	YA
1 Door Stop	400 series as req'd	US26D	RO
1 Threshold	273x3AFG Pemkote FHSL14SS		PE
1 Gasketing	Integral Kerfed x HM Frame Mfr.		PE
1 Rain Guard	346A		PE
1 Door Bottom	222APK TKSP		PE

#### Set: 2.0

Doors: 101

Description: Exterior Inswing - Lockable Privacy Function

3 Hinge, Full Mortise	MPB91 4-1/2" x 4-1/2"	US32D	MK
1 Dormitory Lock	CRR 8822FL LC	626	YA
1 Mortise Cylinder	Match Owner Key System	626	YA
1 Surface Closer	3501	689	YA
1 Kick Plate	K1050 12" HGT x CSK x BEV x TORX	US32D	RO
1 Door Stop	400 series as req'd	US26D	RO
1 Threshold	273x3AFG Pemkote FHSL14SS		PE
1 Gasketing	Integral Kerfed x HM Frame Mfr.		PE
1 Rain Guard	346A		PE
1 Door Bottom	222APK TKSP		PE

#### Set: 3.0

Doors: 201

Description: Exterior Inswing - Classroom Function x Overhead Stop

3 Hinge, Full Mortise	MPB91 4-1/2" x 4-1/2"	US32D	MK
1 Classroom Lock	CRR 8808FL LC	626	YA

Bid Set

NEW LEBANON SCHOOLS  
SOFTBALL BUILDING

1 Mortise Cylinder	Match Owner Key System	626	YA
1 Conc Overhead Stop	6-336	630	RF
1 Surface Closer	3501	689	YA
1 Kick Plate	K1050 12" HGT x CSK x BEV x TORX	US32D	RO
1 Threshold	273x3AFG Pemkote FHSL14SS		PE
1 Gasketing	Integral Kerfed x HM Frame Mfr.		PE
1 Rain Guard	346A		PE
1 Door Bottom	222APK TKSP		PE

**Set: 4.0**

Doors: 103

Description: Inswing - Storeroom Function

3 Hinge, Full Mortise	MPB79 4-1/2" x 4-1/2"	US26D	MK
1 Storeroom Lock	CRR 8805FL LC	626	YA
1 Mortise Cylinder	Match Owner Key System	626	YA
1 Door Stop	400 series as req'd	US26D	RO
3 Silencer	608-RKW		RO

**END OF SECTION 08 71 00**

**SECTION 09 65 19 - RESILIENT BASE AND ACCESSORIES****PART 1 - GENERAL**

## 1.1 SUMMARY

- A. This Section includes the following:
  - 1. Resilient wall base
  - 2. Resilient transition strips

## 1.2 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. Samples: For each exposed product and for each color and texture specified, not less than 12 inches long.
- C. Shop Drawings: Include the following:
  - 1. Transitions and other accessory strips and transition details to other flooring materials.

## 1.3 PROJECT CONDITIONS

- A. Maintain temperatures within range recommended by manufacturer, but not less than 70 deg F or more than 95 deg F, in spaces to receive floor tile during the following time periods:
  - 1. 48 hours before installation.
  - 2. During installation.
  - 3. 48 hours after installation.
- B. After post-installation period, maintain temperatures within range recommended by manufacturer, but not less than 55 deg F or more than 95 deg F.
- C. Close spaces to traffic during floor covering installation.
- D. Close spaces to traffic for 48 hours after floor covering installation.
- E. Install resilient products after other finishing operations, including painting, have been completed.

## 1.4 EXTRA MATERIALS

- A. Furnish extra materials described below that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
  - 1. Resilient Wall Base: Furnish not less than 10 lf of each type and color of base installed.

**PART 2 - PRODUCTS**

## 2.1 RESILIENT WALL BASE

- A. Resilient Wall Base: ASTM F 1861 Type TS (rubber, vulcanized thermoset); Group I (solid);
  - 1. Manufacturers: Subject to compliance with requirements, provide one of the following:
    - a. Tarkett, Traditional Rubber Wall Base, 4" Straight
    - b. Approved Equal
  - 2. Properties:
    - a. Minimum Thickness: 0.125 inch.
    - b. Height: 4 inches.
    - c. Lengths: Coils in manufacturer's standard length.
    - d. Outside Corners: Job formed.
    - e. Inside Corners: Job formed.
    - f. Surface: Smooth.
  - 3. Products:
    - a. RB-1: Charcoal, 20

## 2.2 RESILIENT ACCESSORIES

- A. Transitions: Vinyl Moldings; Basis of Design: Tarkett.
  - 1. Manufacturers: Subject to compliance with requirements, provide one of the following:
    - a. Burke Mercer
    - b. Roppe
  - 2. Products:
    - a. Transition between tile carpet and OBS flooring: CE-XX-A

## 2.3 INSTALLATION MATERIALS

- A. Adhesives: Water-resistant type recommended by manufacturer to suit resilient products and substrate conditions indicated.

**PART 3 - EXECUTION**

## 3.1 TRANSITION STRIPS

- A. Provide transition strips at all material change locations.

**END OF SECTION 09 65 19**

**SECTION 09 68 13 – TILE CARPETING****PART 1 - GENERAL**

## 1.1 SUMMARY

- A. This Section includes:
  - 1. Modular, tufted carpet tile.

## 1.2 SUBMITTALS

- A. Product Data: For each product indicated.
- B. Notarized Statement From Manufacturer: Before carpet materials are ordered, submit four copies of the test results from a recognized laboratory and four copies of a notarized statement, signed by an officer of the manufacturing firm(s), confirming that the carpet products proposed for use are those which have passed the required tests defined above.
- C. Affidavit by General Contractor: Submit four copies attesting that materials actually installed were the same as those certified as meeting specified requirements.
- D. Samples: For each carpet and exposed accessory and for each color and pattern required.
- E. Product Schedule: Use same room and product designations indicated on Drawings and in schedules.
- F. Closeout Submittals:
  - 1. The following items are to be included in the Maintenance Manual for this project:
    - a. Product data
    - b. Maintenance information
    - c. Recycling documentation
      - 1) Submit documentation stating the quantity of carpet material returned to the manufacturer or delivered to the recycler for disposal.
      - 2) Provide certification of carpet reclamation from receiver i.e. weight ticket, bill of lading, etc.

## 1.3 QUALITY ASSURANCE

- A. Installer Qualifications: An experienced installer who is certified by the Floor Covering Installation Board or who can demonstrate compliance with its certification program requirements.
- B. Pre-Installation Conference: Conduct at the project site. Representative of the carpet manufacturer must be in attendance, as well as the Installation contractor. The Carpet manufacturer's representative will review installation procedures to be followed.

## 1.4 DELIVERY, STORAGE, AND HANDLING

- A. Comply with CRI 104, Section 5, "Storage and Handling."

## 1.5 PROJECT CONDITIONS

- A. General: Comply with CRI 104, Section 6.1, "Site Conditions; Temperature and Humidity."
- B. Environmental Limitations: Do not install carpet until wet work in spaces is complete and dry, and ambient temperature and humidity conditions are maintained at the levels indicated for Project when occupied for its intended use.
- C. Do not install carpet over concrete slabs until slabs have cured and are sufficiently dry to bond with adhesive and concrete slabs have pH range recommended by manufacturer.

## 1.6 WARRANTY

- 1. Lifetime Carpet Warranty: Manufacturer's standard form in which manufacturer agrees to replace carpet that does not comply with requirements. Warranty does not include deterioration or failure of carpet from unusual traffic, failure of substrate, vandalism, or abuse. Lifetime warranty includes tuft bind, dimensional stability, edge raveling, snags, runs, pilling and fuzzing, and delamination.
- 2. Manufacturer's Warranty will include replacement of carpet that fails within 10 years from date of Substantial Completion for failures including, but not limited to, more than 10 percent loss of face fiber.

## 1.7 EXTRA MATERIALS

- A. Furnish extra materials described below, before installation begins, that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
  - 1. Furnish 10% of each carpet type, rounded up to nearest whole carton

**PART 2 - PRODUCTS**

## 2.1 CARPET TILE

- A. Carpet Type CPT-1 (Walkoff)
  - 1. Manufacturer: Patcraft
  - 2. Collection: Walk Forward
  - 3. Style: I0533 Access
  - 4. Color: Corridor 00510
  - 5. Size: 24" x 24"
  - 6. Installation Method: Quarter Turn
  - 7. Fire-Test-Response Characteristics:
    - a. DOC FF-1 "Pill Test": Passes
    - b. NBS Smoke Chamber NFPA 258 – Less than 450 Flaming Mode

## 2.2 INSTALLATION ACCESSORIES

- A. All accessory materials must be as recommended and approved by the carpet manufacturer.
- B. Trowelable Leveling and Patching Compounds: Latex-modified, hydraulic-cement-based formulation provided or recommended by carpet manufacturer.

- C. Primers: Recommended by carpet manufacturer for installation for dusty and/or porous subfloors and for the encapsulation of tacky, latex-based adhesives.
- D. Adhesives: Water-resistant, mildew-resistant, non-staining, pressure sensitive type to suit products and subfloor conditions indicated, that complies with flammability requirements for installed carpet and is recommended or provided by carpet manufacturer for releasable installation.

### **PART 3 - EXECUTION**

#### **3.1 PREPARATION**

- A. Remove sub-floor ridges and bumps. Fill minor or local low spots, cracks, joints, holes and other defects with sub-floor filler.
- B. Fill, level and make smooth cracks 1/16 inch or more, holes, unevenness, and roughness with compatible latex floor patching compounds. Feather floor filling or leveling compound a minimum of four (4) ft. Sweep floor of loose granular debris prior to filling. After filling, allow filler to dry. Damp mop floor with warm water and allow to dry. Vacuum after mopping to ensure that loose granular debris is removed and to provide a proper substrate to install carpet. Prohibit traffic until filler is cured.
- C. Vacuum floor again immediately before installation of carpeting.
- D. Confirm compatibility of manufacturer's recommended adhesive with curing compounds on wood floors.
- E. Carpet and adhesive must be stored at a minimum temperature of 68° F, for 72 hours prior to installation.
- F. Store adhesive and other liquid materials in same atmospheric conditions as carpet, 68° F for at least 72 hours.
- G. All porous, gritty, chalky and dusty surfaces must be primed using manufacturer recommended primer. All patched areas must be fully primed. Install primer as recommended by the manufacturer.

#### **3.2 INSTALLATION**

- A. Comply with CRI 104, Section 14, "Carpet Modules" and with carpet tile manufacturer's written installation instructions.
- B. Installation Method: Glue down; install every tile with full-spread, releasable, pressure-sensitive adhesive. Comply with all recommendations of the carpet manufacturer for installation of specified material.
- C. Maintain uniformity of carpet direction and lay of pile. At doorways, center seams under door in closed position. Bind or seal cut edges as recommended by carpet manufacturer.
- D. Extend carpet into toe spaces, door reveals, closets, open-bottomed obstructions, removable flanges, alcoves, and similar openings.

- E. Cleaning: Immediately prior to final inspection, carpeted areas shall be totally cleaned of all soil, including dirt, dust, spots, stains, adhesive, paint, etc.

**END OF SECTION 09 68 13**

**SECTION 09 91 13 - EXTERIOR PAINTING**

**PART 1 - GENERAL**

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section includes surface preparation and the application of paint systems on the following exterior substrates:
  - 1. Steel.
  - 2. Galvanized metal.
- B. Related Requirements:
  - 1. Section 09 91 23 "Interior Painting" for surface preparation and the application of paint systems on interior substrates.
  - 2. Section 09 93 00 "Staining and Transparent Finishing" for surface preparation and the application of wood stains and transparent finishes on exterior wood substrates.

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product. Include preparation requirements and application instructions.
- B. Samples for Initial Selection: For each type of topcoat product.
- C. Product List: For each product indicated, include the following:
  - 1. Cross-reference to paint system and locations of application areas. Use same designations indicated on Drawings and in schedules.

1.4 CLOSEOUT SUBMITTALS

- A. Coating Maintenance Manual: Provide coating maintenance manual including area summary with finish schedule, area detail designating location where each product/color/finish was used, product data pages, material safety data sheets, care and cleaning instructions, touch-up procedures, and color samples of each color and finish used.

1.5 MAINTENANCE MATERIAL SUBMITTALS

- A. Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.

1. Paint: 1 gal. of each material and color applied.

#### 1.6 DELIVERY, STORAGE, AND HANDLING

- A. Delivery and Handling: Deliver products to Project site in an undamaged condition in manufacturer's original sealed containers, complete with labels and instructions for handling, storing, unpacking, protecting, and installing. Packaging shall bear the manufacturer's label with the following information:
  1. Product name and type (description).
  2. Batch date.
  3. Color number.
  4. VOC content.
  5. Environmental handling requirements.
  6. Surface preparation requirements.
  7. Application instructions.
- B. Store materials not in use in tightly covered containers in well-ventilated areas with ambient temperatures continuously maintained at not less than 45 deg F.
  1. Maintain containers in clean condition, free of foreign materials and residue.
  2. Remove rags and waste from storage areas daily.

#### 1.7 FIELD CONDITIONS

- A. Apply paints only when temperature of surfaces to be painted and ambient air temperatures are between 50 and 95 deg F.
- B. Do not apply paints in snow, rain, fog, or mist; when relative humidity exceeds 85 percent; at temperatures less than 5 deg F above the dew point; or to damp or wet surfaces.

### **PART 2 - PRODUCTS**

#### 2.1 MANUFACTURERS

- A. Basis-of-Design Product: Subject to compliance with requirements, provide Sherwin-Williams Company (The); products indicated or comparable product from one of the following:
  1. Approved Equal.
- B. Comparable Products: Comparable products of approved manufacturers will be considered in accordance with Section 01 60 00 "Product Requirements," and the following:
  1. Products are approved by manufacturer in writing for application specified.
  2. Products meet performance and physical characteristics of basis of design product including published ratio of solids by volume, plus or minus two percent.
- C. Source Limitations: Obtain paint materials from single source from single listed manufacturer.
  1. Manufacturer's designations listed on a separate color schedule are for color reference only and do not indicate prior approval.

**2.2 PAINT, GENERAL****A. Material Compatibility:**

1. Provide materials for use within each paint system that are compatible with one another and substrates indicated, under conditions of service and application as demonstrated by manufacturer, based on testing and field experience.
2. For each coat in a paint system, provide products recommended in writing by manufacturers of topcoat for use in paint system and on substrate indicated.

**B. VOC Content:** For field applications, provide paints and coatings that complies with VOC content limits of authorities having jurisdiction.**C. Colors:** Match Architect's samples.**PART 3 - EXECUTION****3.1 EXAMINATION****A. Examine substrates and conditions, with Applicator present, for compliance with requirements for maximum moisture content and other conditions affecting performance of the Work. Verify suitability of substrates, including surface conditions and compatibility with existing finishes and primers. Where acceptability of substrate conditions is in question, apply samples and perform in-situ testing to verify compatibility, adhesion, and film integrity of new paint application.**

1. Report, in writing, conditions that may affect application, appearance, or performance of paint.

**B. Proceed with coating application only after unsatisfactory conditions have been corrected; application of coating indicates acceptance of surfaces and conditions.****3.2 PREPARATION****A. Comply with manufacturer's written instructions and recommendations in "MPI Manual" applicable to substrates and paint systems indicated.****B. Remove hardware, covers, plates, and similar items already in place that are removable and are not to be painted. If removal is impractical or impossible because of size or weight of item, provide surface-applied protection before surface preparation and painting.**

1. After completing painting operations, use workers skilled in the trades involved to reinstall items that were removed. Remove surface-applied protection.

**C. Clean substrates of substances that could impair bond of paints, including dust, dirt, oil, grease, and incompatible paints and encapsulants.**

1. Remove incompatible primers and reprime substrate with compatible primers or apply tie coat as required to produce paint systems indicated.

**D. Steel Substrates:** Remove rust, loose mill scale, and shop primer if any. Clean using methods recommended in writing by paint manufacturer.

- E. Shop-Primed Steel Substrates: Clean field welds, bolted connections, and abraded areas of shop paint, and paint exposed areas with the same material as used for shop priming to comply with SSPC-PA 1 for touching up shop-primed surfaces.
- F. Galvanized-Metal Substrates: Remove grease and oil residue from galvanized sheet metal by mechanical methods to produce clean, lightly etched surfaces that promote adhesion of subsequently applied paints.

### 3.3 APPLICATION

- A. Apply paints according to manufacturer's written instructions and recommendations in "MPI Manual."
  - 1. Use applicators and techniques suited for paint and substrate indicated.
  - 2. Paint surfaces behind movable items same as similar exposed surfaces. Before final installation, paint surfaces behind permanently fixed items with prime coat only.
  - 3. Paint both sides and edges of exterior doors and entire exposed surface of exterior door frames.
  - 4. Paint entire exposed surface of window frames and sashes.
  - 5. Do not paint over labels of independent testing agencies or equipment name, identification, performance rating, or nomenclature plates.
  - 6. Primers specified in painting schedules may be omitted on items that are factory primed or factory finished if acceptable to topcoat manufacturers.
- B. Tint undercoats same color as topcoat, but tint each undercoat a lighter shade to facilitate identification of each coat if multiple coats of same material are to be applied. Provide sufficient difference in shade of undercoats to distinguish each separate coat.
- C. If undercoats or other conditions show through topcoat, apply additional coats until cured film has a uniform paint finish, color, and appearance.
- D. Apply paints to produce surface films without cloudiness, spotting, holidays, laps, brush marks, roller tracking, runs, sags, ropiness, or other surface imperfections. Cut in sharp lines and color breaks.
- E. Painting Fire Suppression, Plumbing, HVAC, Electrical, Communication, and Electronic Safety and Security Work:
  - 1. Paint the following work where exposed to view:
    - a. Uninsulated metal piping.
    - b. Uninsulated plastic piping.
    - c. Metal conduit.

### CLEANING AND PROTECTION

- F. At end of each workday, remove rubbish, empty cans, rags, and other discarded materials from Project site.
- G. After completing paint application, clean spattered surfaces. Remove spattered paints by washing, scraping, or other methods. Do not scratch or damage adjacent finished surfaces.

- H. Protect work of other trades against damage from paint application. Correct damage to work of other trades by cleaning, repairing, replacing, and refinishing, as approved by Architect, and leave in an undamaged condition.
- I. At completion of construction activities of other trades, touch up and restore damaged or defaced painted surfaces.

### 3.4 EXTERIOR PAINTING SCHEDULE

#### A. Ferrous Metal, Galvanized-Metal, and Aluminum Substrates:

##### 1. Water-Based Light Industrial Coating System:

- a. Prime Coat: Primer, water based.
  - 1) S-W Pro Industrial Pro-Cryl Universal Primer, B66-310 Series, 5.0 to 10.0 mils wet, 2.0 to 4.0 mils dry.
- b. Intermediate Coat: Light industrial coating, exterior, water based, matching topcoat.
- c. Topcoat: Light industrial coating, exterior, water based, semi-gloss.
  - 1) S-W Pro Industrial Acrylic Semi-Gloss Coating, B66-650 Series, at 2.5 to 4.0 mils dry, per coat.

**END OF SECTION 09 91 13**

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**SECTION 09 91 23 - INTERIOR PAINTING****PART 1 - GENERAL**

## 1.1 RELATED DOCUMENTS

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

## 1.2 SUMMARY

- A. Section includes surface preparation and the application of paint systems on the following interior substrates:
  - 1. Concrete masonry units (CMU).
  - 2. Gypsum Board
  - 3. Steel.
  - 4. Wood.
- B. Related Requirements:
  - 1. Section 09 91 13 "Exterior Painting" for surface preparation and the application of paint systems on exterior substrates.
  - 2. Section 09 93 00 "Staining and Transparent Finishing" for surface preparation and the application of wood stains and transparent finishes on interior wood substrates.

## 1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product. Include preparation requirements and application instructions.
- B. Product List: For each product indicated, include the following:
  - 1. Cross-reference to paint system and locations of application areas. Use same designations indicated on Drawings and in schedules.

## 1.4 CLOSEOUT SUBMITTALS

- 1. Coating Maintenance Manual: Provide coating maintenance manual including area summary with finish schedule, area detail designating location where each product/color/finish was used, product data pages, material safety data sheets, care and cleaning instructions, touch-up procedures, and color samples of each color and finish used.

## 1.5 MAINTENANCE MATERIAL SUBMITTALS

- A. Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
  - 1. Paint: 1 gal. of each material and color applied.

## 1.6 DELIVERY, STORAGE, AND HANDLING

- A. Delivery and Handling: Deliver products to Project site in an undamaged condition in manufacturer's original sealed containers, complete with labels and instructions for handling, storing, unpacking, protecting, and installing. Packaging shall bear the manufacturer's label with the following information:
1. Product name and type (description).
  2. Batch date.
  3. Color number.
  4. VOC content.
  5. Environmental handling requirements.
  6. Surface preparation requirements.
  7. Application instructions.
- B. Store materials not in use in tightly covered containers in well-ventilated areas with ambient temperatures continuously maintained at not less than 45 deg F.
1. Maintain containers in clean condition, free of foreign materials and residue.
  2. Remove rags and waste from storage areas daily.

## 1.7 FIELD CONDITIONS

- A. Apply paints only when temperature of surfaces to be painted and ambient air temperatures are between 50 and 95 deg F.
- B. Do not apply paints when relative humidity exceeds 85 percent; at temperatures less than 5 deg F above the dew point; or to damp or wet surfaces.

**PART 2 - PRODUCTS**

## 2.1 MANUFACTURERS

- A. Basis-of-Design Product: Subject to compliance with requirements, provide Sherwin-Williams Company (The); products indicated or comparable product from one of the following:
1. Approved Equal
- B. Comparable Products: Comparable products of approved manufacturers will be considered in accordance with Section 01 60 00 "Product Requirements," and the following:
1. Products are approved by manufacturer in writing for application specified.
  2. Products meet performance and physical characteristics of basis of design product including published ratio of solids by volume, plus or minus two percent.
- C. Source Limitations: Obtain paint materials from single source from single listed manufacturer.
1. Manufacturer's designations listed on a separate color schedule are for color reference only and do not indicate prior approval.

## 2.2 PAINT, GENERAL

## A. Material Compatibility:

1. Provide materials for use within each paint system that are compatible with one another and substrates indicated, under conditions of service and application as demonstrated by manufacturer, based on testing and field experience.
2. For each coat in a paint system, provide products recommended in writing by manufacturers of topcoat for use in paint system and on substrate indicated.

## B. Colors: As selected by Architect from manufacturer's full range.

## 2.3 SOURCE QUALITY CONTROL

## A. Testing of Paint Materials: Owner reserves the right to invoke the following procedure:

1. Owner will engage the services of a qualified testing agency to sample paint materials. Contractor will be notified in advance and may be present when samples are taken. If paint materials have already been delivered to Project site, samples may be taken at Project site. Samples will be identified, sealed, and certified by testing agency.
2. Testing agency will perform tests for compliance with product requirements.
3. Owner may direct Contractor to stop applying coatings if test results show materials being used do not comply with product requirements. Contractor shall remove noncomplying paint materials from Project site, pay for testing, and repaint surfaces painted with rejected materials. Contractor will be required to remove rejected materials from previously painted surfaces if, on repainting with complying materials, the two paints are incompatible.

**PART 3 - EXECUTION**

## 3.1 EXAMINATION

## A. Examine substrates and conditions, with Applicator present, for compliance with requirements for maximum moisture content and other conditions affecting performance of the Work. Verify suitability of substrates, including surface conditions and compatibility with existing finishes and primers. Where acceptability of substrate conditions is in question, apply samples and perform in-situ testing to verify compatibility, adhesion, and film integrity of new paint application.

1. Report, in writing, conditions that may affect application, appearance, or performance of paint.

## B. Substrate Conditions:

1. Maximum Moisture Content of Substrates: When measured with an electronic moisture meter as follows:
  - a. Masonry (Clay and CMU): 12 percent.
  - b. Wood: 15 percent.

## C. Proceed with coating application only after unsatisfactory conditions have been corrected; application of coating indicates acceptance of surfaces and conditions.

## 3.2 PREPARATION

- A. Comply with manufacturer's written instructions and recommendations in "MPI Manual" applicable to substrates indicated.
- B. Remove hardware, covers, plates, and similar items already in place that are removable and are not to be painted. If removal is impractical or impossible because of size or weight of item, provide surface-applied protection before surface preparation and painting.
  - 1. After completing painting operations, use workers skilled in the trades involved to reinstall items that were removed. Remove surface-applied protection if any.
- C. Clean substrates of substances that could impair bond of paints, including dust, dirt, oil, grease, and incompatible paints and encapsulants.
  - 1. Remove incompatible primers and reprime substrate with compatible primers or apply tie coat as required to produce paint systems indicated.
- D. Masonry Substrates: Remove efflorescence and chalk. Do not paint surfaces if moisture content or alkalinity of surfaces or mortar joints exceed that permitted in manufacturer's written instructions.
- E. Steel Substrates: Remove rust, loose mill scale, and shop primer, if any. Clean using methods recommended in writing by paint manufacturer.
- F. Shop-Primed Steel Substrates: Clean field welds, bolted connections, and abraded areas of shop paint, and paint exposed areas with the same material as used for shop priming to comply with SSPC-PA 1 for touching up shop-primed surfaces.
- G. Galvanized-Metal Substrates: Remove grease and oil residue from galvanized sheet metal fabricated from coil stock by mechanical methods to produce clean, lightly etched surfaces that promote adhesion of subsequently applied paints.

## 3.3 APPLICATION

- A. Apply paints according to manufacturer's written instructions and to recommendations in "MPI Manual."
  - 1. Use applicators and techniques suited for paint and substrate indicated.
  - 2. Paint surfaces behind movable equipment and furniture same as similar exposed surfaces. Before final installation, paint surfaces behind permanently fixed equipment or furniture with prime coat only.
  - 3. Paint front and backsides of access panels, removable or hinged covers, and similar hinged items to match exposed surfaces.
  - 4. Do not paint over labels of independent testing agencies or equipment name, identification, performance rating, or nomenclature plates.
  - 5. Primers specified in painting schedules may be omitted on items that are factory primed or factory finished if acceptable to topcoat manufacturers.
- B. Tint each undercoat a lighter shade to facilitate identification of each coat if multiple coats of same material are to be applied. Tint undercoats to match color of topcoat, but provide sufficient difference in shade of undercoats to distinguish each separate coat.

- C. If undercoats or other conditions show through topcoat, apply additional coats until cured film has a uniform paint finish, color, and appearance.
- D. Apply paints to produce surface films without cloudiness, spotting, holidays, laps, brush marks, roller tracking, runs, sags, ropiness, or other surface imperfections. Cut in sharp lines and color breaks.
- E. Painting Fire Suppression, Plumbing, HVAC, Electrical, Communication, and Electronic Safety and Security Work:
  - 1. Paint the following work where exposed in equipment rooms:
    - a. Equipment, including panelboards.
    - b. Uninsulated metal piping.
    - c. Uninsulated plastic piping.
    - d. Pipe hangers and supports.
    - e. Metal conduit.
  - 2. Paint the following work where exposed in occupied spaces:
    - a. Uninsulated metal piping.
    - b. Uninsulated plastic piping.
    - c. Pipe hangers and supports.
    - d. Metal conduit.
    - e. Other items as directed by Architect.
  - 3. Paint portions of internal surfaces of metal ducts, without liner, behind air inlets and outlets that are visible from occupied spaces.

### 3.4 CLEANING AND PROTECTION

- A. At end of each workday, remove rubbish, empty cans, rags, and other discarded materials from Project site.
- B. After completing paint application, clean spattered surfaces. Remove spattered paints by washing, scraping, or other methods. Do not scratch or damage adjacent finished surfaces.
- C. Protect work of other trades against damage from paint application. Correct damage to work of other trades by cleaning, repairing, replacing, and refinishing, as approved by Architect, and leave in an undamaged condition.
- D. At completion of construction activities of other trades, touch up and restore damaged or defaced painted surfaces.

### 3.5 INTERIOR PAINTING SCHEDULE

- A. Concrete Substrates, Pedestrian Traffic Surfaces:
  - 1. Clear Acrylic System, Gloss Finish:
    - a. First Coat:
      - 1) S-W H&C Clarishield Water-Based Wet-Look Concrete Sealer, at 100 to 200 sq. ft. per gal.

- b. Second Coat:
  - 1) S-W H&C Clarishield Water-Based Wet-Look Concrete Sealer, at 100 to 200 sq. ft. per gal.

B. CMU Substrates:

1. Latex System:

- a. Block Filler: Block filler, latex, interior/exterior:
  - 1) S-W PrepRite Block Filler, B25W25, at 75-125 sq. ft. per gal.
- b. Intermediate Coat: Latex, interior, matching topcoat.
- c. Topcoat: Latex, interior, eggshell:
  - 1) S-W ProMar 200 Zero VOC Latex Eg-Shel, B20-2600 Series, at 4.0 mils wet, 1.7 mils dry, per coat.

C. Metal Substrates (Aluminum, Steel, Galvanized Steel):

1. Latex System:

- a. Prime Coat: Primer, rust-inhibitive, water based:
  - 1) S-W Pro Industrial Pro-Cryl Universal Primer, B66-310 Series, at 5.0 to 10 mils wet, 2.0 to 4.0 mils dry.
- b. Intermediate Coat: Water-based acrylic, interior, matching topcoat.
- c. Topcoat: Water-based acrylic, semi-gloss:
  - 1) S-W Pro Industrial Acrylic Semi-Gloss Coating, B66-650 Series, at 2.5 to 4.0 mils dry, per coat.

D. Wood Substrates, Pedestrian Traffic Surfaces:

1. Latex Floor Enamel System:

- a. First Coat: Floor paint, latex, slip-resistant, matching topcoat.
- b. Topcoat: Floor paint, latex, slip-resistant, low gloss:
  - 1) S-W ArmorSeal Tread-Plex, B90 Series, at 1.5 to 2.0 mils dry per coat.

**END OF SECTION 09 91 23**

**SECTION 09 93 23 – INTERIOR STAINS & TRANSPARENT FINISHES****PART 1 – GENERAL**

## 1.1 SECTION INCLUDES

- A. Interior transparent finishes

## 1.2 RELATED SECTIONS

- A. Section 09 91 13 – Exterior Painting
- B. Section 09 91 23 – Interior Painting

## 1.3 SUBMITTALS

- A. Submit under provisions of Section 01 33 00, Submittal Procedures.
- B. Product Data: Manufacturer's data sheets on each paint and coating product should include:
  - 1 Product characteristics
  - 2 Surface preparation instructions and recommendations
  - 3 Primer requirements and finish specification
  - 4 Storage and handling requirements and recommendations
  - 5 Application methods
  - 6 Cleanup information
- C. Selection Samples: Submit a complete set of color chips that represent the full range of manufacturer's color samples available.
- D. Coating Maintenance Manual: upon conclusion of the project, the Contractor or paint manufacturer/supplier shall furnish a coating maintenance manual, such as Sherwin-Williams "Custodian Paint Maintenance Manual" report or equal. Manual shall include an Area Summary with finish schedule, Area Detail designating where each product/color/finish was used, product data pages, Safety Data Sheets, care and cleaning instructions, touch-up procedures, and color samples of each color and finish used.

## 1.4 DELIVERY, STORAGE, AND HANDLING

- A. Delivery: Deliver manufacturer's unopened containers to the work site. Packaging shall bear the manufacturer's name, label, and the following list of information:
  - 1 Product name, and type (description)
  - 2 Application & use instructions
  - 3 Surface preparation
  - 4 VOC content
  - 5 Environmental handling and SDS
  - 6 Batch date
  - 7 Color number
- B. Storage: Store and dispose of solvent-based materials, and materials used with solvent-based materials, in accordance with requirements of local authorities having jurisdiction. Store materials

in an area that is within the acceptable temperature range, per manufacturer's instructions. Protect from freezing.

- C. Handling: Maintain a clean, dry storage area, to prevent contamination or damage to the coatings.

## 1.5 PROJECT CONDITIONS

- A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not apply coatings under environmental conditions outside manufacturer's absolute limits.

## PART 2 – PRODUCTS

### 2.1 MANUFACTURERS

- A. Acceptable Manufacturer:  
The Sherwin-Williams Company  
101 Prospect Avenue NW  
Cleveland, OH 44115  
Tel: (800) 321-8194  
www.sherwin-williams.com
- B. Substitutions: Requests for substitutions will be considered in accordance with provisions of Section 01 60 00 Product Requirements. When submitting request for substitution, provide complete product data specified above under Submittals, for each substitute product.

### 2.2 APPLICATIONS/SCOPE

- A. Use this article to define the scope of painting if not fully defined in a Finish Schedule or on the drawings. This article must be carefully edited to reflect the surfaces found on the project. In some cases, it may be enough to use the first paragraph that says, in effect, "paint everything" along with a list of items not to paint, without exhaustively defining all the different surfaces and items that must be painted.
- B. If the project involves repainting some but not all existing painted surfaces, be sure to indicate the extent of the repainting.
- C. The descriptions of each system can also be used to further refine the definition of what is to be painted, stained, or clear finished.
- D. Surfaces to Be Coated:
  - 1. Wood Interior Systems - Transparent

### 2.3 SCHEDULE

- A. Wood Interior Systems (vertical) – Clear Finish
  - 1. Polyurethane System
    - a Clear Finish
      - 1st Coat: S-W Minwax® Fast Drying Polyurethane
      - 2nd Coat: S-W Minwax® Fast Drying Polyurethane (Satin)

## 2.4 MATERIALS - GENERAL REQUIREMENTS

### A Paints and Coatings - General:

- 1 Unless otherwise indicated, provide factory-mixed coatings. When required, mix coatings to correct consistency in accordance with manufacturer's instructions before application. Do not reduce, thin, or dilute coatings or add materials to coatings unless such procedure is specifically described in manufacturer's product instructions.
- 2 For opaque finishes, tint each coat including primer coat and intermediate coats, one-half shade lighter than succeeding coat, with final finish coat as base color.

### B Primers:

- 1 Where the manufacturer offers options on primers for a particular substrate, use primer categorized as "best" by the manufacturer.
- 2 The execution of backpriming of woodwork is usually specified in the woodwork section, although the materials may be specified here.

## 2.5 ACCESSORIES:

### A Coating Application Accessories:

- 1 Provide all primers, sealers, cleaning agents, cleaning cloths, sanding materials, and clean-up materials required, per manufacturer's specifications.

## PART 3 – EXECUTION

### 3.1 EXAMINATION

- A. Do not begin application of coatings until substrates have been properly examined and prepared. Notify Architect of unsatisfactory conditions before proceeding.
- B. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.
- C. Proceed with work only after conditions have been corrected and approved by all parties, otherwise application of coatings will be considered as an acceptance of surface conditions.

### 3.2 SURFACE PREPARATION

- A. Proper product selection, surface preparation, and application affect coating performance. Coating integrity and service life will be reduced because of improperly prepared surfaces. Selection and implementation of proper surface preparation ensures coating adhesion to the substrate and prolongs the service life of the coating system.
- B. Selection of the proper method of surface preparation depends on the substrate, the environment, and the expected service life of the coating system. Economics, surface contamination, and the effect on the substrate will also influence the selection of surface preparation methods.
- C. The surface must be dry and in sound condition. Remove oil, dust, dirt, loose rust, peeling paint or other contamination to ensure good adhesion. Recognize that any surface preparation short of total removal of the old coating may compromise the service length of the system.
- D. Prior to attempting to remove mildew, it is always recommended to test any cleaner on a small, inconspicuous area prior to use. Bleach and bleaching type cleaners may damage or discolor existing paint films. Bleach alternative cleaning solutions may be advised.  
Mildew may be removed before painting by washing with a solution of 1-part liquid bleach and 3-

parts water. Apply the solution and scrub the mildewed area. Allow the solution to remain on the surface for 10 minutes. Rinse thoroughly with water and allow the surface to dry before painting. Wear protective eyewear, waterproof gloves, and protective clothing. Quickly wash off any of the mixture that comes in contact with your skin. Do not add detergents or ammonia to the bleach-water solution.

#### E. Surface Preparation

##### 1. Wood—Interior

All finishing lumber and flooring must be stored in dry, warm rooms to prevent absorption of moisture, shrinkage, and roughening of the wood. All surfaces must be sanded smooth, with the grain, never across it. Surface blemishes must be corrected and the area cleaned of dust before coating. Patching compounds will generally be visible through clear coatings.

### 3.3 INSTALLATION

- A. Testing: Due to the wide variety of substrates, preparation methods, application methods and environments, one should test the product in an inconspicuous spot for adhesion and compatibility prior to full-scale application.
- B. Apply all coatings and materials with manufacturer's specifications in mind. Mix and thin coatings according to manufacturer's recommendation.
- C. Do not apply to wet or damp surfaces.
  - 1.Wait at least 30 days before applying to new concrete or masonry or follow manufacturer's procedures to apply appropriate coatings prior to 30 days.
  - 2.Test new concrete for moisture content.
  - 3.Wait until wood is fully dry
- D. Apply coatings using methods recommended by manufacturer.
- E. Uniformly apply coatings without runs, drips, or sags, without brush marks, and with consistent sheen.
- F. Apply coatings at spreading rate required to achieve the manufacturer's recommended dry film thickness.
- G. Regardless of number of coats specified, apply as many coats as necessary for complete hide and uniform appearance.
- H. Inspection: The coated surface must be inspected and approved by the Architect or Engineer just prior to the application of each coat.

### 3.4 PROTECTION

- A. Protect finished coatings from damage until completion of project.
- B Touch-up damaged coatings after substantial completion, following manufacturer's recommendation for touch up or repair of damaged coatings. Repair any defects that will hinder the performance of the coatings.

## END OF SECTION 09 93 23

**SECTION 10 28 00 - TOILET ACCESSORIES****PART 1 - GENERAL**

## 1.1 SUMMARY

- A. This Section includes the following:
1. Public-use washroom accessories.

## 1.2 SUBMITTALS

- A. Product Data: For each type of product indicated.
1. Construction details and dimensions.
  2. Anchoring and mounting requirements, including requirements for cutouts in other work and substrate preparation.
  3. Material and finish descriptions.
  4. Features that will be included for Project.
  5. Manufacturer's warranty.
- B. Product Schedule: Indicating types, quantities, sizes, and installation locations by room of each accessory required.
1. Identify locations using room designations indicated.
  2. Identify products using designations indicated.

**PART 2 - PRODUCTS**

## 2.1 PUBLIC-USE WASHROOM ACCESSORIES

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
1. Bobrick Washroom Equipment, Inc.
  2. A & J Washroom Accessories, Inc.
  3. American Specialties, Inc.
  4. Bradley Corporation.
  5. General Accessory Manufacturing Co. (GAMCO).
- B. Grab Bars:
1. Basis-of-Design Product: Bobrick 5806.99
  2. Mounting: Flanges with concealed fasteners.
  3. Material: Stainless steel, 0.05 inch thick.
    - a. Finish: Smooth, No. 4, satin finish on ends and slip-resistant texture in grip area.
  4. Outside Diameter: 1-1/2 inches.
  5. Length:
    - a. Item 1 – 36 inches
    - b. Item 2 – 42 inches
    - c. Item 3 – 18 inches
- C. Mirror – Item 4:
1. Basis-of-Design Product: Bobrick B-166 1836 Series

2. Mirror: No. 1 quality, 1/4" tempered select float glass: selected for silvering and electrostatically copper-plated by galvanic process.
  3. Size: 36 inches high x 18 inches wide
  4. Frame: 18-8, Type 430 stainless steel, 1/2 inch x 1/2 inch with bright polished finish.
  5. Mounting: Concealed 20-gauge galvanized steel.
- D. Multi-Roll Toilet Tissue Dispenser – Item 5:
1. Basis of Design Product: Bobrick B-2888
  2. Mounting: Surface Mounted
  3. Door or cover: One-piece seamless construction, with tumbler lockset.
  4. Material and Finish: Stainless steel, No. 4 finish (satin).
  5. Rolls: Dispenses two standard core rolls up to 5-1/4" diameter
- E. Wall Mounted Soap Dispenser – Item 6:
1. Basis of Design Product: Bobrick 26617
  2. Door: hinged housing W/ key lock
  3. Mounting: Surface Mounted
  4. Capacity: 1L / 35 fl oz.
  5. Material and Finish: Stainless steel, No. 4 finish (satin).
- F. Paper Towel / Waste Receptacle Combination Unit – Item 7:
1. Basis-of-Design Product: Bobrick B-38034
  2. Cabinet Material: 18-8 Type-304, heavy-gauge stainless steel, all welded construction.
  3. Door Material: 18-8 Type-304 18-gauge stainless steel w/ satin-finish, keyed, with concealed full-length stainless steel piano-hinge.
  4. Paper Towel Dispenser: 18-8 Type 304 22-gauge stainless steel w/ satin finish. Accommodates (600) C-fold or 800 multifold paper towels.
  5. Mounting: Recessed
  6. Size and Installation: rough wall opening to be 11-1/2" wide by 53-5/8" high, recessed a minimum 3-3/4" from finish face of wall.
- G. Baby-Changing Station – Item 8:
1. Basis-of-Design Product: Koala Kare, KB100-ST-01
  2. Description: Horizontal unit that opens by folding down from stored position and with child-protection strap.
  3. Mounting: Recessed, with unit projecting not more than 1 inch from wall when closed.
  4. Operation: Gas spring mechanism.
  5. Material and Finish: HDPE in manufacturer's standard color.
  6. Liner Dispenser: Built in.
  7. Color: Gray.
- H. Coat Hook – Item 9:
1. Basis-of-Design Product: Bobrick B-7671
  2. Flange and Support Arm: 18-8 S, Type-304, 22-gauge stainless steel. Concealed, 18-gauge stainless steel mounting bracket. All-welded construction. Secured to door with a stainless steel setscrew.
  3. Concealed Wall Plate: 18-8 S, Type-304, 19-gauge stainless steel
  4. Cap: 18-8 S, Type-304, 14-gauge stainless steel. Welded to support arm

**PART 3 - EXECUTION**

3.1 INSTALLATION

- A. Install accessories according to manufacturers' written instructions, using fasteners appropriate to substrate indicated and recommended by unit manufacturer. Install units level, plumb, and firmly anchored in locations and at heights indicated.
- B. Grab Bars: Install to withstand a downward load of at least 250 lbf when tested according to ASTM F 446.

3.2 ADJUSTING AND CLEANING

- A. Adjust accessories for unencumbered, smooth operation. Replace damaged or defective items.
- B. Remove temporary labels and protective coatings.
- C. Clean and polish exposed surfaces according to manufacturer's written recommendations.

**END OF SECTION 10 28 00**

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