

PROJECT MANUAL



FIXTURES, FURNITURE & EQUIPMENT/TECHNOLOGY PACKAGE

**ACES WINTERGREEN INTERDISTRICT MAGNET SCHOOL
670 WINTERGREEN AVENUE
HAMDEN, CT 06708
PHASE 2 OF 2**

**STATE PROJECT #244-0045 MAG
S/P+A PROJECT #22.125**

**VOLUME 1 OF 1
PUBLIC BID**

**April 15, 2024
Issued for Bid: May 15, 2025**



**Architects | Engineers | Interiors
Silver Petrucelli + Associates, Inc.
3190 Whitney Avenue, Hamden, CT 06518
311 State Street, New London, CT 06320**

 FIXTURES, FURNITURE, & EQUIPMENT/TECHNOLOGY PACKAGE – PHASE 2

**ACES WINTERGREEN INTERDISTRICT MAGNET SCHOOL
 670 WINTERGREEN AVENUE
 HAMDEN, CT 06514
 STATE PROJECT #244-0045 MAG
PUBLIC BID**

S/P+A PROJECT #22.125

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Legal Notice

ACES COOPERATIVE EDUCATIONAL SERVICES
Construction Services
370 James Street, Suite 303 – New Haven, CT 06513
Tel (203) 498-6839

INVITATION TO BID

Notice is hereby given that sealed bids by which ACES will contract for the

**ACES Wintergreen Interdistrict Magnet School Alterations
Furniture, Fixtures & Equipment/Technology Package
Phase 2 of 2
State Project No. 244-0043 SP**

will be received and publicly opened in Conference Room 104 of SDA Professional Building, 205 Skiff Street, Hamden until

2:00 pm, Wednesday, May 28, 2025

as determined by the Conference Room's clock.

No pre-bid meeting is scheduled, however prospective bidders may contact the Facility Director to set up a visit on their own.

A bid bond for five percent (5%) of the base bid cost is required and must accompany each proposal. Bids must be held firm for ninety (90) days beyond the bid opening date.

The successful bidder must file a one hundred percent (100%) Performance Bond, a one hundred percent (100%) Labor & Materials Bond and a Certificate of Insurance with the Purchasing Agent within ten (10) days of notice of bid award.

Attention of bidders is directed to certain requirements of this contract which require compliance with certain local, state, and federal requirements.

Plans and specifications must be obtained directly from ACES' website, www.aces.org/our-agency/request-for-proposals at no cost to the Vendor.

Each bidder is responsible for checking the website to determine if any addenda have been issued.

This contract is subject to state contract compliance requirements, including set-aside (twenty-five percent (25%) SBE and six and one-quarter percent (6.25%) M/W/DisBE) and non-discrimination requirements enforced by the CHRO.

ACES reserves the right to reject any or all bids, to waive any informalities, omissions, excess verbiage, or technical defects in the bidding and ACES need not necessarily award the contract to the lowest Bidder if, in the opinion of ACES, it would be in the best interest of ACES to accept another bid.

ACES is an Affirmative Action/Equal Opportunity Employer.
Minority/Women's Business Enterprises are encouraged to apply.

DRAFT AIA® Document A701® – 2018

Instructions to Bidders

for the following Project:

(Name, location, and detailed description)

<< >>
<< >>
<< >>

THE OWNER:

(Name, legal status, address, and other information)

<< >>< >>
<< >>
<< >>
<< >>

THE ARCHITECT:

(Name, legal status, address, and other information)

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

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

FEDERAL, STATE, AND LOCAL LAWS MAY IMPOSE REQUIREMENTS ON PUBLIC PROCUREMENT CONTRACTS. CONSULT LOCAL AUTHORITIES OR AN ATTORNEY TO VERIFY REQUIREMENTS APPLICABLE TO THIS PROCUREMENT BEFORE COMPLETING THIS FORM.

It is intended that AIA Document G612™-2017, Owner's Instructions to the Architect, Parts A and B will be completed prior to using this document.

ELECTRONIC COPYING of any portion of this AIA® Document to another electronic file is prohibited and constitutes a violation of copyright laws as set forth in the footer of this document.

ARTICLE 1 DEFINITIONS

§ 1.1 Bidding Documents include the Bidding Requirements and the Proposed Contract Documents. The Bidding Requirements consist of the advertisement or invitation to bid, Instructions to Bidders, supplementary instructions to bidders, the bid form, and any other bidding forms. The Proposed Contract Documents consist of the unexecuted form of Agreement between the Owner and Contractor and that Agreement's Exhibits, Conditions of the Contract (General, Supplementary and other Conditions), Drawings, Specifications, all Addenda, and all other documents enumerated in Article 8 of these Instructions.

§ 1.2 Definitions set forth in the General Conditions of the Contract for Construction, or in other Proposed Contract Documents apply to the Bidding Documents.

§ 1.3 Addenda are written or graphic instruments issued by the Architect, which, by additions, deletions, clarifications, or corrections, modify or interpret the Bidding Documents.

§ 1.4 A Bid is a complete and properly executed proposal to do the Work for the sums stipulated therein, submitted in accordance with the Bidding Documents.

§ 1.5 The Base Bid is the sum stated in the Bid for which the Bidder offers to perform the Work described in the Bidding Documents, to which Work may be added or deleted by sums stated in Alternate Bids.

§ 1.6 An Alternate Bid (or Alternate) is an amount stated in the Bid to be added to or deducted from, or that does not change, the Base Bid if the corresponding change in the Work, as described in the Bidding Documents, is accepted.

§ 1.7 A Unit Price is an amount stated in the Bid as a price per unit of measurement for materials, equipment, or services, or a portion of the Work, as described in the Bidding Documents.

§ 1.8 A Bidder is a person or entity who submits a Bid and who meets the requirements set forth in the Bidding Documents.

§ 1.9 A Sub-bidder is a person or entity who submits a bid to a Bidder for materials, equipment, or labor for a portion of the Work.

ARTICLE 2 BIDDER'S REPRESENTATIONS

§ 2.1 By submitting a Bid, the Bidder represents that:

- .1 the Bidder has read and understands the Bidding Documents;
- .2 the Bidder understands how the Bidding Documents relate to other portions of the Project, if any, being bid concurrently or presently under construction;
- .3 the Bid complies with the Bidding Documents;
- .4 the Bidder has visited the site, become familiar with local conditions under which the Work is to be performed, and has correlated the Bidder's observations with the requirements of the Proposed Contract Documents;
- .5 the Bid is based upon the materials, equipment, and systems required by the Bidding Documents without exception; and
- .6 the Bidder has read and understands the provisions for liquidated damages, if any, set forth in the form of Agreement between the Owner and Contractor.

ARTICLE 3 BIDDING DOCUMENTS

§ 3.1 Distribution

§ 3.1.1 Bidders shall obtain complete Bidding Documents, as indicated below, from the issuing office designated in the advertisement or invitation to bid, for the deposit sum, if any, stated therein.

(Indicate how, such as by email, website, host site/platform, paper copy, or other method Bidders shall obtain Bidding Documents.)

« »

§ 3.1.2 Any required deposit shall be refunded to Bidders who submit a bona fide Bid and return the paper Bidding Documents in good condition within ten days after receipt of Bids. The cost to replace missing or damaged paper

documents will be deducted from the deposit. A Bidder receiving a Contract award may retain the paper Bidding Documents, and the Bidder's deposit will be refunded.

§ 3.1.3 Bidding Documents will not be issued directly to Sub-bidders unless specifically offered in the advertisement or invitation to bid, or in supplementary instructions to bidders.

§ 3.1.4 Bidders shall use complete Bidding Documents in preparing Bids. Neither the Owner nor Architect assumes responsibility for errors or misinterpretations resulting from the use of incomplete Bidding Documents.

§ 3.1.5 The Bidding Documents will be available for the sole purpose of obtaining Bids on the Work. No license or grant of use is conferred by distribution of the Bidding Documents.

§ 3.2 Modification or Interpretation of Bidding Documents

§ 3.2.1 The Bidder shall carefully study the Bidding Documents, shall examine the site and local conditions, and shall notify the Architect of errors, inconsistencies, or ambiguities discovered and request clarification or interpretation pursuant to Section 3.2.2.

§ 3.2.2 Requests for clarification or interpretation of the Bidding Documents shall be submitted by the Bidder in writing and shall be received by the Architect at least seven days prior to the date for receipt of Bids.
(Indicate how, such as by email, website, host site/platform, paper copy, or other method Bidders shall submit requests for clarification and interpretation.)

« »

§ 3.2.3 Modifications and interpretations of the Bidding Documents shall be made by Addendum. Modifications and interpretations of the Bidding Documents made in any other manner shall not be binding, and Bidders shall not rely upon them.

§ 3.3 Substitutions

§ 3.3.1 The materials, products, and equipment described in the Bidding Documents establish a standard of required function, dimension, appearance, and quality to be met by any proposed substitution.

§ 3.3.2 Substitution Process

§ 3.3.2.1 Written requests for substitutions shall be received by the Architect at least ten days prior to the date for receipt of Bids. Requests shall be submitted in the same manner as that established for submitting clarifications and interpretations in Section 3.2.2.

§ 3.3.2.2 Bidders shall submit substitution requests on a Substitution Request Form if one is provided in the Bidding Documents.

§ 3.3.2.3 If a Substitution Request Form is not provided, requests shall include (1) the name of the material or equipment specified in the Bidding Documents; (2) the reason for the requested substitution; (3) a complete description of the proposed substitution including the name of the material or equipment proposed as the substitute, performance and test data, and relevant drawings; and (4) any other information necessary for an evaluation. The request shall include a statement setting forth changes in other materials, equipment, or other portions of the Work, including changes in the work of other contracts or the impact on any Project Certifications (such as LEED), that will result from incorporation of the proposed substitution.

§ 3.3.3 The burden of proof of the merit of the proposed substitution is upon the proposer. The Architect's decision of approval or disapproval of a proposed substitution shall be final.

§ 3.3.4 If the Architect approves a proposed substitution prior to receipt of Bids, such approval shall be set forth in an Addendum. Approvals made in any other manner shall not be binding, and Bidders shall not rely upon them.

§ 3.3.5 No substitutions will be considered after the Contract award unless specifically provided for in the Contract Documents.

§ 3.4 Addenda

§ 3.4.1 Addenda will be transmitted to Bidders known by the issuing office to have received complete Bidding Documents.

(Indicate how, such as by email, website, host site/platform, paper copy, or other method Addenda will be transmitted.)

« »

§ 3.4.2 Addenda will be available where Bidding Documents are on file.

§ 3.4.3 Addenda will be issued no later than four days prior to the date for receipt of Bids, except an Addendum withdrawing the request for Bids or one which includes postponement of the date for receipt of Bids.

§ 3.4.4 Prior to submitting a Bid, each Bidder shall ascertain that the Bidder has received all Addenda issued, and the Bidder shall acknowledge their receipt in the Bid.

ARTICLE 4 BIDDING PROCEDURES

§ 4.1 Preparation of Bids

§ 4.1.1 Bids shall be submitted on the forms included with or identified in the Bidding Documents.

§ 4.1.2 All blanks on the bid form shall be legibly executed. Paper bid forms shall be executed in a non-erasable medium.

§ 4.1.3 Sums shall be expressed in both words and numbers, unless noted otherwise on the bid form. In case of discrepancy, the amount entered in words shall govern.

§ 4.1.4 Edits to entries made on paper bid forms must be initialed by the signer of the Bid.

§ 4.1.5 All requested Alternates shall be bid. If no change in the Base Bid is required, enter "No Change" or as required by the bid form.

§ 4.1.6 Where two or more Bids for designated portions of the Work have been requested, the Bidder may, without forfeiture of the bid security, state the Bidder's refusal to accept award of less than the combination of Bids stipulated by the Bidder. The Bidder shall neither make additional stipulations on the bid form nor qualify the Bid in any other manner.

§ 4.1.7 Each copy of the Bid shall state the legal name and legal status of the Bidder. As part of the documentation submitted with the Bid, the Bidder shall provide evidence of its legal authority to perform the Work in the jurisdiction where the Project is located. Each copy of the Bid shall be signed by the person or persons legally authorized to bind the Bidder to a contract. A Bid by a corporation shall further name the state of incorporation and have the corporate seal affixed. A Bid submitted by an agent shall have a current power of attorney attached, certifying the agent's authority to bind the Bidder.

§ 4.1.8 A Bidder shall incur all costs associated with the preparation of its Bid.

§ 4.2 Bid Security

§ 4.2.1 Each Bid shall be accompanied by the following bid security:

(Insert the form and amount of bid security.)

« »

§ 4.2.2 The Bidder pledges to enter into a Contract with the Owner on the terms stated in the Bid and shall, if required, furnish bonds covering the faithful performance of the Contract and payment of all obligations arising thereunder. Should the Bidder refuse to enter into such Contract or fail to furnish such bonds if required, the amount of the bid security shall be forfeited to the Owner as liquidated damages, not as a penalty. In the event the Owner fails to comply with Section 6.2, the amount of the bid security shall not be forfeited to the Owner.

§ 4.2.3 If a surety bond is required as bid security, it shall be written on AIA Document A310™, Bid Bond, unless otherwise provided in the Bidding Documents. The attorney-in-fact who executes the bond on behalf of the surety shall affix to the bond a certified and current copy of an acceptable power of attorney. The Bidder shall provide surety bonds from a company or companies lawfully authorized to issue surety bonds in the jurisdiction where the Project is located.

§ 4.2.4 The Owner will have the right to retain the bid security of Bidders to whom an award is being considered until (a) the Contract has been executed and bonds, if required, have been furnished; (b) the specified time has elapsed so that Bids may be withdrawn; or (c) all Bids have been rejected. However, if no Contract has been awarded or a Bidder has not been notified of the acceptance of its Bid, a Bidder may, beginning « » days after the opening of Bids, withdraw its Bid and request the return of its bid security.

§ 4.3 Submission of Bids

§ 4.3.1 A Bidder shall submit its Bid as indicated below:

(Indicate how, such as by website, host site/platform, paper copy, or other method Bidders shall submit their Bid.)

« »

§ 4.3.2 Paper copies of the Bid, the bid security, and any other documents required to be submitted with the Bid shall be enclosed in a sealed opaque envelope. The envelope shall be addressed to the party receiving the Bids and shall be identified with the Project name, the Bidder's name and address, and, if applicable, the designated portion of the Work for which the Bid is submitted. If the Bid is sent by mail, the sealed envelope shall be enclosed in a separate mailing envelope with the notation "SEALED BID ENCLOSED" on the face thereof.

§ 4.3.3 Bids shall be submitted by the date and time and at the place indicated in the invitation to bid. Bids submitted after the date and time for receipt of Bids, or at an incorrect place, will not be accepted.

§ 4.3.4 The Bidder shall assume full responsibility for timely delivery at the location designated for receipt of Bids.

§ 4.3.5 A Bid submitted by any method other than as provided in this Section 4.3 will not be accepted.

§ 4.4 Modification or Withdrawal of Bid

§ 4.4.1 Prior to the date and time designated for receipt of Bids, a Bidder may submit a new Bid to replace a Bid previously submitted, or withdraw its Bid entirely, by notice to the party designated to receive the Bids. Such notice shall be received and duly recorded by the receiving party on or before the date and time set for receipt of Bids. The receiving party shall verify that replaced or withdrawn Bids are removed from the other submitted Bids and not considered. Notice of submission of a replacement Bid or withdrawal of a Bid shall be worded so as not to reveal the amount of the original Bid.

§ 4.4.2 Withdrawn Bids may be resubmitted up to the date and time designated for the receipt of Bids in the same format as that established in Section 4.3, provided they fully conform with these Instructions to Bidders. Bid security shall be in an amount sufficient for the Bid as resubmitted.

§ 4.4.3 After the date and time designated for receipt of Bids, a Bidder who discovers that it made a clerical error in its Bid shall notify the Architect of such error within two days, or pursuant to a timeframe specified by the law of the jurisdiction where the Project is located, requesting withdrawal of its Bid. Upon providing evidence of such error to the reasonable satisfaction of the Architect, the Bid shall be withdrawn and not resubmitted. If a Bid is withdrawn pursuant to this Section 4.4.3, the bid security will be attended to as follows:

(State the terms and conditions, such as Bid rank, for returning or retaining the bid security.)

« »

ARTICLE 5 CONSIDERATION OF BIDS

§ 5.1 Opening of Bids

If stipulated in an advertisement or invitation to bid, or when otherwise required by law, Bids properly identified and received within the specified time limits will be publicly opened and read aloud. A summary of the Bids may be made available to Bidders.

§ 5.2 Rejection of Bids

Unless otherwise prohibited by law, the Owner shall have the right to reject any or all Bids.

§ 5.3 Acceptance of Bid (Award)

§ 5.3.1 It is the intent of the Owner to award a Contract to the lowest responsive and responsible Bidder, provided the Bid has been submitted in accordance with the requirements of the Bidding Documents. Unless otherwise prohibited by law, the Owner shall have the right to waive informalities and irregularities in a Bid received and to accept the Bid which, in the Owner's judgment, is in the Owner's best interests.

§ 5.3.2 Unless otherwise prohibited by law, the Owner shall have the right to accept Alternates in any order or combination, unless otherwise specifically provided in the Bidding Documents, and to determine the lowest responsive and responsible Bidder on the basis of the sum of the Base Bid and Alternates accepted.

ARTICLE 6 POST-BID INFORMATION

§ 6.1 Contractor's Qualification Statement

Bidders to whom award of a Contract is under consideration shall submit to the Architect, upon request and within the timeframe specified by the Architect, a properly executed AIA Document A305™, Contractor's Qualification Statement, unless such a Statement has been previously required and submitted for this Bid.

§ 6.2 Owner's Financial Capability

A Bidder to whom award of a Contract is under consideration may request in writing, fourteen days prior to the expiration of the time for withdrawal of Bids, that the Owner furnish to the Bidder reasonable evidence that financial arrangements have been made to fulfill the Owner's obligations under the Contract. The Owner shall then furnish such reasonable evidence to the Bidder no later than seven days prior to the expiration of the time for withdrawal of Bids. Unless such reasonable evidence is furnished within the allotted time, the Bidder will not be required to execute the Agreement between the Owner and Contractor.

§ 6.3 Submittals

§ 6.3.1 After notification of selection for the award of the Contract, the Bidder shall, as soon as practicable or as stipulated in the Bidding Documents, submit in writing to the Owner through the Architect:

- .1 a designation of the Work to be performed with the Bidder's own forces;
- .2 names of the principal products and systems proposed for the Work and the manufacturers and suppliers of each; and
- .3 names of persons or entities (including those who are to furnish materials or equipment fabricated to a special design) proposed for the principal portions of the Work.

§ 6.3.2 The Bidder will be required to establish to the satisfaction of the Architect and Owner the reliability and responsibility of the persons or entities proposed to furnish and perform the Work described in the Bidding Documents.

§ 6.3.3 Prior to the execution of the Contract, the Architect will notify the Bidder if either the Owner or Architect, after due investigation, has reasonable objection to a person or entity proposed by the Bidder. If the Owner or Architect has reasonable objection to a proposed person or entity, the Bidder may, at the Bidder's option, withdraw the Bid or submit an acceptable substitute person or entity. The Bidder may also submit any required adjustment in the Base Bid or Alternate Bid to account for the difference in cost occasioned by such substitution. The Owner may accept the adjusted bid price or disqualify the Bidder. In the event of either withdrawal or disqualification, bid security will not be forfeited.

§ 6.3.4 Persons and entities proposed by the Bidder and to whom the Owner and Architect have made no reasonable objection must be used on the Work for which they were proposed and shall not be changed except with the written consent of the Owner and Architect.

ARTICLE 7 PERFORMANCE BOND AND PAYMENT BOND

§ 7.1 Bond Requirements

§ 7.1.1 If stipulated in the Bidding Documents, the Bidder shall furnish bonds covering the faithful performance of the Contract and payment of all obligations arising thereunder.

§ 7.1.2 If the furnishing of such bonds is stipulated in the Bidding Documents, the cost shall be included in the Bid. If the furnishing of such bonds is required after receipt of bids and before execution of the Contract, the cost of such bonds shall be added to the Bid in determining the Contract Sum.

§ 7.1.3 The Bidder shall provide surety bonds from a company or companies lawfully authorized to issue surety bonds in the jurisdiction where the Project is located.

§ 7.1.4 Unless otherwise indicated below, the Penal Sum of the Payment and Performance Bonds shall be the amount of the Contract Sum.

(If Payment or Performance Bonds are to be in an amount other than 100% of the Contract Sum, indicate the dollar amount or percentage of the Contract Sum.)

« »

§ 7.2 Time of Delivery and Form of Bonds

§ 7.2.1 The Bidder shall deliver the required bonds to the Owner not later than three days following the date of execution of the Contract. If the Work is to commence sooner in response to a letter of intent, the Bidder shall, prior to commencement of the Work, submit evidence satisfactory to the Owner that such bonds will be furnished and delivered in accordance with this Section 7.2.1.

§ 7.2.2 Unless otherwise provided, the bonds shall be written on AIA Document A312, Performance Bond and Payment Bond.

§ 7.2.3 The bonds shall be dated on or after the date of the Contract.

§ 7.2.4 The Bidder shall require the attorney-in-fact who executes the required bonds on behalf of the surety to affix to the bond a certified and current copy of the power of attorney.

ARTICLE 8 ENUMERATION OF THE PROPOSED CONTRACT DOCUMENTS

§ 8.1 Copies of the proposed Contract Documents have been made available to the Bidder and consist of the following documents:

- .1 AIA Document A101™–2017, Standard Form of Agreement Between Owner and Contractor, unless otherwise stated below.

(Insert the complete AIA Document number, including year, and Document title.)

« »

- .2 AIA Document A101™–2017, Exhibit A, Insurance and Bonds, unless otherwise stated below.

(Insert the complete AIA Document number, including year, and Document title.)

« »

- .3 AIA Document A201™–2017, General Conditions of the Contract for Construction, unless otherwise stated below.

(Insert the complete AIA Document number, including year, and Document title.)

« »

- .4 Building Information Modeling Exhibit, if completed:

« »

- .5 Drawings

Number	Title	Date

- .6 Specifications

Section	Title	Date	Pages

- .7 Addenda:

Number	Date	Pages

- .8 Other Exhibits:
(Check all boxes that apply and include appropriate information identifying the exhibit where required.)

[☐] AIA Document E204™–2017, Sustainable Projects Exhibit, dated as indicated below:
(Insert the date of the E204-2017.)

☐ ☐

[☐] The Sustainability Plan:

Title	Date	Pages

[☐] Supplementary and other Conditions of the Contract:

Document	Title	Date	Pages

- .9 Other documents listed below:
(List here any additional documents that are intended to form part of the Proposed Contract Documents.)

☐ ☐

PART 1 - GENERAL

1.1 COMPLETION DATE

- A. All work as required by these specifications and drawings shall be completed by the date stipulated in the Contractor's bid form. There is no exception to this contract requirement, unless approved otherwise by contract change order.
- B. If the Vendor neglects, fails, or refuses to achieve substantial completion by 11:59 pm by the date stipulated in the Vendor's bid form for each of the bid components requiring durations or deadlines, liquidated damages of Five Hundred Dollars (\$500.00) per day or part thereof shall be due for each bid component to the Owner and subtracted from the unpaid contract amount or bond held by the Owner.

1.2 QUESTIONS

- A. Questions regarding this bid can be directed, in writing only, to:

Kimberly Delinski, Interior Designer
Silver/Petrucci + Associates, Inc.
3190 Whitney Avenue, Bldg. 2
Hamden, CT 06518
Tel: 203-230-9007 x254
Email: kdelinski@silverpetrucci.com

- B. Installation coordination shall be with the following:

Kimberly Delanski, FF&E Coordinator

1.3 RESPONSIBILITY FOR MEASUREMENT OF QUANTITIES

- A. The Vendor shall have sole responsibility for the accuracy of all measurements and for estimating the material quantities required to satisfy these specifications.

1.4 DISCREPANCIES AND ADDENDA

- A. Should a Bidder find any discrepancies in the Drawings and Specifications, or should they be in doubt as to their meaning, they shall notify the Owner at once, who will send a written Addendum to all Bidders concerned. Oral instructions or decisions, unless confirmed by Addenda, will not be considered valid, legal, or binding. No change order requests will be authorized or considered because of the failure of the Vendor to include work called for in the Addenda in their bid.

1.5 MODIFICATIONS TO AIA DOCUMENT A701, Instructions to Bidders, 2018.

The following sections modify the provisions and procedures to the degree listed in the sections and articles listed in these supplementary instructions.

ARTICLE 3 **Make the following changes:**

3.1.1 **Delete** all but the first sentence and “, as indicated below,” from the first sentence.

3.1.2 **Delete** in its entirety.

3.2.2 **Delete** all but the first sentence.

3.3.2.1 **Delete** all but the first sentence.

3.4.1 **Delete** all but the first sentence.

3.4.3 **Delete the phrase** "four days prior to the date for receipt" and insert "24 hours prior to the date and time for receipt".

ARTICLE 4 Make the following changes:

4.2.1 **Revise to read as follows:** "Each Bid shall be accompanied by the bid security as indicated on the Invitation to Bid."

4.2.4 **Revise last sentence to read as follows:** "However, if no Contract has been awarded or a Bidder has not been notified of the acceptance of its Bid, a Bidder may withdraw its Bid and request the return of its bid security after the length of time on the Invitation to Bid."

4.3.1 **Add to the end the following:** "Paper copy".

4.4.3 **Add to the end the following:** "Owner will return bid security to the Bidder."

ARTICLE 5 Add the following:

5.3.3 Contractors who have paid liquidated damages or penalties to an Owner for failing to comply with the schedule of any project in the last five (5) years are disqualified from this project, subject to an appeal to the Owner's Representative(s) where the Contractor demonstrates that 1) subsequent to the project which resulted in penalties the Contractor completed two (2) similar projects or demonstrably similar projects in a timely fashion; and 2) that the factors which lead to delays and penalties in the first instance no longer exist. Payment of liquidated damages or penalties may also be defined as "having been found by the Owner to be in non-compliance with the project schedule and negotiating a financial settlement for the project in which value was returned to the Owner, either via change orders or 'work-in-kind' or other recognized manner". The Contractor under consideration shall respond to this clause in the Contractor's Qualification Statement, A305 as indicated in Section 6.1 of the Instructions to Bidders, A701.

ARTICLE 6 Add the following:

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

6.4 Work Phasing Schedule

Bidders to whom award of the Contract is under consideration shall submit to the Architect within fifteen (15) days of the Contract date, a detailed work Phasing Schedule describing the bodies of work to be undertaken and areas of the project to be addressed in per week periods between the Award of the Contract and the Bidder's proposed date of Substantial Completion.

ARTICLE 7 Add the following:

- 7.3** The Contractor and the Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to the Owner for the performance of the Construction Contract, which is incorporated herein by reference.
- 7.4** If the Contractor performs the Construction Contract, the Surety and the Contractor shall have no obligation under this Bond, except to participate in conferences as provided in Subparagraph 7.5.1.
- 7.5** If there is no Owner Default, the Surety's obligation under this Bond shall arise after:
- 7.5.1** The Owner has notified the Contractor and the Surety at its address described in Paragraph 7.12 below that the Owner is considering declaring a Contractor Default and has requested and attempted to arrange a conference with the Contractor and the Surety to be held not later than fifteen (15) days after receipt of such notice to discuss methods of performing the Construction Contract. If the Owner, the Contractor, and the Surety agree, the Contractor shall be allowed a reasonable time to perform the Construction Contract, but such an agreement shall not waive the Owner's right, if any, subsequently to declare a Contractor Default and
- 7.5.2** The Owner has declared a Contractor Default and formally terminated the Contractor's right to complete the contract. Such Contractor Default shall not be declared earlier than twenty (20) days after the Contractor and the Surety have received notice as provided in Subparagraph 7.5.1; and
- 7.5.3** The Owner has agreed to pay the Balance of the Contract Price to the Surety in accordance with the terms of the Construction Contract or to a contractor selected to perform the Construction Contract in accordance with the terms of the contract with the Owner.
- 7.6** When the Owner has satisfied the conditions of Paragraph 7.5.3, the Surety shall promptly and at the Surety's expense take one of the following actions:
- 7.6.1** Arrange for the Contractor, with consent of the Owner, to perform and complete the Construction Contract; or
- 7.6.2** Undertake to perform and complete the Construction Contract itself, through its agents or through independent contractors; or
- 7.6.3** Obtain bids or negotiated proposals from qualified contractors acceptable to the Owner for a contract for performance and completion of the Construction Contract, arrange for a contract to be prepared for execution by the Owner and the contractor selected with the Owner's concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Construction Contract, and pay to the Owner the amount of damages (as described in Paragraph 7.8) in excess of the Balance of the Contract Price incurred by the Owner resulting from the Contractor's default; or
- 7.6.4** Waive its right to perform and complete, arrange for completion, or obtain a new contractor and with reasonable promptness under the circumstances:

- .1 After investigation, determine the amount for which it may be liable to the Owner and, as soon as practicable after the amount is determined, tender payment therefore to the Owner; or
 - .2 Deny liability in whole or in part and notify the Owner citing reasons therefore.
- 7.7 If the Surety does not proceed as provided in Paragraph 7.6 with reasonable promptness, the Surety shall be deemed to be in default on this Bond fifteen (15) days after receipt of an additional written notice from the Owner to the Surety demanding that the Surety perform its obligations under this Bond, and the Owner shall be entitled to enforce any remedy available to the Owner. If the Surety proceeds as provided in Subparagraph 7.6.4, and the Owner refuses the payment rendered or the Surety has denied liability, in whole or in part, without further notice the Owner shall be entitled to enforce any remedy available to the Owner.
- 7.8 After the Owner has terminated the Contractor's right to complete the Construction Contract, and if the Surety elects to act under Subparagraph 7.6.1, 7.6.2, or 7.6.3 above, then the responsibilities of the Surety to the Owner shall not be greater than those of the Contractor under the Construction Contract, and the responsibilities of the Owner to the Surety shall not be greater than those of the Owner under the Construction Contract. To the limit of the amount of this Bond, but subject to commitment by the Owner of the Balance of the Contract Price to mitigation of costs and damages on the Construction Contract, the Surety is obligated without duplication for:
 - 7.8.1 The responsibilities of the Contractor for correction of defective work and completion of the Construction Contract;
 - 7.8.2 Additional legal, design professional and delay costs resulting from the Contractor's Default, and resulting from the actions or failure to act of the Surety under Paragraph 7.6; and
 - 7.8.3 Late delivery penalties or if penalties are not specified in the Construction Contract, actual damages caused by delayed performance or non-performance of the Contractor.
- 7.9 The Surety shall not be liable to the Owner or others for obligations of the Contractor that are unrelated to the Construction Contract, and the Balance of the Contract Price shall not be reduced or set off on account of any such unrelated obligations. No right of action shall accrue on this Bond to any person or entity other than the Owner or its heirs, executors, administrators, or successors.
- 7.10 The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders, and other obligations.
- 7.11 Any proceeding, legal or equitable, under this Bond may be instituted in any court of competent jurisdiction in the location in which the work or part of the work is located and shall be instituted within two (2) years after Contractor Default or within two (2) years after the Contractor ceased working or within two (2) years after the Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this Paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.
- 7.12 Notice to the Surety, the Owner or the Contractor shall be mailed or delivered to the address shown on the signature page.
- 7.13 When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with

said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. The intent is that this Bond shall be construed as a statutory bond and not as a common-law bond.

7.14 Definitions.

7.14.1 Balance of the Contract Price: The total amount payable by the Owner to the Contractor under the Construction Contract after all proper adjustments have been made, including allowance to the Contractor of any amounts received or to be received by the Owner in settlement of insurance or other claims for damages to which the Contractor is entitled, reduced by all valid and proper payments made to or on behalf of the Contractor under the Construction Contract.

7.14.2 Construction Contract: The agreement between the Owner and the Contractor identified on the signature page, including all Contract Documents and changes thereto.

7.14.3 Contractor Default: Failure of the Contractor, which has neither been remedied nor waived, to perform or otherwise to comply with the terms of the Construction Contract.

7.14.4 Owner Default: Failure of the Owner, which has neither been remedied nor waived, to pay the Contractor as required by the Construction Contract or to perform and complete or comply with the other terms thereof.

ARTICLE 8 Make the following changes:

Delete in its entirety.

Add the following Articles:

ARTICLE 9 MISCELLANEOUS REQUIREMENTS

9.1 Overtime

The Contractor must include within their base price all overtime, nights, holidays, and weekends as required to meet the Project Completion date.

9.2 Commission on Human Rights and Opportunities (CHRO)

The Contractor who is selected to perform this State project must comply with CT General Statutes 4a-60, 4a-60a, 4a-60g, and 46a-68b through 46a-68f, inclusive, as amended by June 2015 Special Session Public Act 15-5.

State law requires a minimum of twenty-five (25%) percent of the state-funded portion of the contract be set aside for award to subcontractors holding current certification from the Connecticut Department of Administrative Services (DAS) under the provisions of CT General Statute 4a-60g. **(Twenty-five percent (25%) of the total state-funded value with DAS-certified Small Businesses and six and one-quarter percent (6.25%) of the total state-funded value with DAS-certified Minority-, Women- and/or Disabled-Owned Businesses.)** The Contractor must demonstrate good faith effort to meet the twenty-five percent (25%) set-aside goals.

9.3 Public Health Emergency

The Contractor shall anticipate and incorporate in their Bid all potential costs related to a public health emergency such as the COVID-19/Coronavirus Pandemic, including rules, regulations, and recommendations issued by public authorities. The potential costs may include, but are not limited to, costs related to social distancing, manpower levels, project scheduling, construction coordination,

material/product supplies and delivery delays, material escalation costs, increased subcontractor/supplier costs, loss of productivity and inefficiency costs, extended general conditions costs, and any other potential costs.

ARTICLE 10 BIDDERS REPRESENTATION

Each bidder shall fully acquaint himself with conditions as they exist, so that he fully understands the complexities and restrictions attending the execution of the Work included in the Bid Documents. The failure to receive or examine any form, instrument, or document, or to visit the site to become acquainted with field conditions, shall in no way relieve the Bidder from any obligation with respect to the Bidder's proposal.

END OF SECTION

(To be submitted in triplicate)

BIDDER:

Name

Address

To: **Area Cooperative Education Services (ACES)
Construction Services, Assistant Executive Director of Operations
370 James Street, Suite 303
New Haven, CT 06513**

Project: **Fixtures, Furniture & Equipment/Technology Package
ACES Wintergreen Intermediate Magnet School Alterations – Phase 2 of 2
670 Wintergreen Avenue
Hamden, CT 06514
State Project #244-0045 MAG**

In preparing this bid, we have carefully examined the Bidding Documents for this Project. We have visited the site and noted the conditions affecting the Work.

The Bidding Documents referred to include Drawings and Project Manual dated April 15, 2024, prepared by Silver/Petrucelli + Associates, Inc., Hamden, Connecticut.

We propose to perform the work described in the Bidding Documents, in keeping with definitions of Article 1 of the Instructions to Bidders, for the Base Bid Sum as follows:

Base Bid: Vendor may bid on any or all the Base Bids.

FF&E Package for the Total Cost of:

\$ _____ Dollars (\$) .00).
written figure

We will commence work on the project _____ calendar days after receipt of "Notice to Proceed" or signing of Contract. We will be able to substantially complete the project within _____ calendar days thereafter. (See SIB 1.1.B).

See attached Category Summary sheets for breakdowns, which must be included with this Bid for the categories which the bidder is submitting. If no bid is offered for various categories, then 'No Bid' must be indicated across that Category Summary bid form.

Technology Package for the Total Cost of:

\$ _____ Dollars (\$) .00).
written figure

We will commence work on the project _____ calendar days after receipt of "Notice to Proceed" or signing of Contract. We will be able to substantially complete the project within _____ calendar days thereafter. (See SIB 1.1.B).

Refer to Division 27 sections for Bill of Material breakdowns, which must be included with this Bid for the categories which the bidder is submitting. If no bid is offered for various categories, then 'No Bid' must be indicated across that Bill of Material.

See attached Category Summary sheets for breakdowns, which must be included with this Bid for the categories which the bidder is submitting. If no bid is offered for various categories, then 'No Bid' must be indicated across that Category Summary bid form.

Unit Prices: Refer to Category Summary sheets attached and provide a unit price for each of the items listed.

If written notice of the acceptance of this Bid is mailed, telegraphed, or delivered to the undersigned at the Address designated below, within ninety (90) days after the date of Bid Opening, or any time thereafter before this Bid is withdrawn, the undersigned will, within ten (10) days after the date of mailing, telegraphing, or delivering of the notice, execute and deliver a contract in the Standard Form of Agreement Between the Owner and Vendor for Furniture, Furnishings, and Equipment (FF&E), AIA Document A151, or similar contract modified as may be mutually agree upon.

The undersigned acknowledges that he has examined the documents, visited and examined the site as required under "Instructions to Bidders", examined the availability of labor and materials and further agrees to comply with all the requirements as to the conditions of employment and wage rates set forth in the Contract Documents.

Addenda:

The undersigned acknowledges receipt of the following addenda to the Contract Documents, listed by number and date:

Number , Dated: _____
Number , Dated: _____

Number , Dated: _____
Number , Dated: _____

Exceptions: _____

ATTACHMENTS – Vendor is to attach the following:

1. **Category Summary Sheets**
2. **Contractor's Qualification Statement (AIA A305)**
3. **CHRO Bidder Contract Compliance Monitoring Report**
4. **Bid Bond**

NON-COLLUSIVE BID STATEMENT

The undersigned bidder certifies that this bid is made independently and without collusion, agreement, understanding or planned course of action with any other bidder and that the contents of the bid shall not be disclosed to anyone other than employees, agents, or sureties prior to the official bid opening.

Signature: _____ Date: _____

Printed Name and Title
of Agent submitting bid: _____

Name of Company: _____

Address: _____

Telephone Number: _____ Fax Number: _____

E-mail: _____

This Bid may be withdrawn prior to the scheduled Bid Opening or any postponement thereof.

Itemized Category Summary Sheet - FF&E

Alteration: ACES at Wintergreen
State Project Number: 244-0045 MAG

Name of Bidder: _____

Substitutions of equal specification and quality will be reviewed. If bidding an item not listed below please provide full spec for review prior to approval

Category A - Administrative Furniture

Item Code	Total Qty.	Item Description	Pre-approved Substitution	Unit Price	Total Price
A01	1	Systems Furniture - Security Desk			
A02	0	NOT IN USE			
A03	3	Multi-purpose Tables			
A04	1	Table for Microwave			
A05	1	Control Table			

Bid Total Price for Category:

For the delivery & installation of Base Bid Equipment & Furniture in accordance with the Contract Documents, including all supervision, labor, services & equipment necessary for the completion of the work for the following

Dollars

Itemized Category Summary Sheet - FF&E

Alteration: ACES at Wintergreen
State Project Number: 244-0045 MAG

Name of Bidder: _____

Substitutions of equal specification and quality will be reviewed. If bidding an item not listed below please provide full spec for review prior to approval

Category B - Classroom Furniture

Item Code	Total Qty.	Item Description	Pre-approved Substitution	Unit Price	Total Price
B01	2	Wardrobe Storage Cabinet			
B02	2	Locker			
B03	22	Student Desk			
B04	2	Student Desk (ADA)			

Bid Total Price for Category:

For the delivery & installation of Base Bid Equipment & Furniture in accordance with the Contract Documents, including all supervision, labor, services & equipment necessary for the completion of the work for the following

_____ Dollars

Itemized Category Summary Sheet - FF&E

Alteration: ACES at Wintergreen
State Project Number: 244-0045 MAG

Name of Bidder: _____

Substitutions of equal specification and quality will be reviewed. If bidding an item not listed below please provide full spec for review prior to approval

Category BB - Classroom Chairs

Item Code	Total Qty.	Item Description	Pre-approved Substitution	Unit Price	Total Price
BB01	24	Student Chairs			
BB02	20	Science Student Chairs			

Bid Total Price for Category:

For the delivery & installation of Base Bid Equipment & Furniture in accordance with the Contract Documents, including all supervision, labor, services & equipment necessary for the completion of the work for the following

_____ Dollars

Itemized Category Summary Sheet - FF&E

Alteration: ACES at Wintergreen
State Project Number: 244-0045 MAG

Name of Bidder: _____

Substitutions of equal specification and quality will be reviewed. If bidding an item not listed below please provide full spec for review prior to approval

Category E - Staff Chairs

Item Code	Total Qty.	Item Description	Pre-approved Substitution	Unit Price	Total Price
E01	2	Admin. Task Chair			
E02	12	Staff Dining Chair			
E03	3	Staff Lounge Chair			

Bid Total Price for Category:

For the delivery & installation of Base Bid Equipment & Furniture in accordance with the Contract Documents, including all supervision, labor, services & equipment necessary for the completion of the work for the following

Dollars

Itemized Category Summary Sheet - FF&E

Alteration: ACES at Wintergreen
State Project Number: 244-0045 MAG

Name of Bidder: _____

Substitutions of equal specification and quality will be reviewed. If bidding an item not listed below
please provide full spec for review prior to approval

Category K - Appliances

Item Code	Total Qty.	Item Description	Pre-approved Substitution	Unit Price	Total Price
K01	1	Refrigerator			

Bid Total Price for Category:

For the delivery & installation of Base Bid Equipment & Furniture in accordance with the Contract Documents,
including all supervision, labor, services & equipment necessary for the completion of the work for the following

Dollars

Itemized Category Summary Sheet - FF&E

Alteration: ACES at Wintergreen
State Project Number: 244-0045 MAG

Name of Bidder: _____

Substitutions of equal specification and quality will be reviewed. If bidding an item not listed below please provide full spec for review prior to approval

Category L - Soft Seating Furniture

Item Code	Total Qty.	Item Description	Pre-approved Substitution	Unit Price	Total Price
L01	2	Foam Ottoman			
L02	3	Foam Lounge Loveseat			
L03	1	Foam Lounger			

Bid Total Price for Category:

For the delivery & installation of Base Bid Equipment & Furniture in accordance with the Contract Documents, including all supervision, labor, services & equipment necessary for the completion of the work for the following

Dollars

Itemized Category Summary Sheet - FF&E

Alteration: ACES at Wintergreen
State Project Number: 244-0045 MAG

Name of Bidder: _____

Substitutions of equal specification and quality will be reviewed. If bidding an item not listed below please provide full spec for review prior to approval

Category M - Music Furniture/Equipment

Item Code	Total Qty.	Item Description	Pre-approved Substitution	Unit Price	Total Price
M01	1	Portable Stage with ramp and stairs			
M02	1	Stage Curtain for Portable Stage			
M03	156	Audience Seating with ganging clips			
M04	8	Audience Chair carts			
M05	3	Mobile Dance Ballet Barre			
M06	2	Clothing Rack			
M07	39	Music Chairs			
M08	1	Choral Risers with ramp			
M09	2	Mobile carts for Choral Risers			
M10	39	Music Stands			
M11	1	Mobile Screen Divider			
M12	2	Mobile Screen Divider			
M13	3	Mobile Dance Mirror			

Bid Total Price for Category:

For the delivery & installation of Base Bid Equipment & Furniture in accordance with the Contract Documents, including all supervision, labor, services & equipment necessary for the completion of the work for the following

_____ Dollars

Itemized Category Summary Sheet - FF&E

Alteration: ACES at Wintergreen
State Project Number: 244-0045 MAG

Name of Bidder: _____

Substitutions of equal specification and quality will be reviewed. If bidding an item not listed below
please provide full spec for review prior to approval

Category S - Science

Item Code	Total Qty.	Item Description	Pre-approved Substitution	Unit Price	Total Price
S01	5	Science Tables, 42" x 60"			

Bid Total Price for Category:

For the delivery & installation of Base Bid Equipment & Furniture in accordance with the Contract Documents,
including all supervision, labor, services & equipment necessary for the completion of the work for the following

Dollars

Itemized Category Summary Sheet - Technology

Alteration: ACES at Wintergreen
State Project Number: 244-0045 MAG

Name of Bidder: _____

Equipment in this Item are to be publically Bid with equals based on the Basis-of-Design.

Category TE-01 - Network Electronic Equipment

Item Code	Total Qty.	Item Description	Unit Price	Total Price
TE-01-10	101	Patch Cable - 6' Blue		
TE-01-11	12	Patch Cable - 1' Yellow		
TE-01-12	1	Installation		

Bid Total Price for Category:
Dollars

For the delivery & installation of Base Bid Equipment in accordance with the Contract Documents, including all supervision, labor, services & equipment necessary for the completion of the work for the above Lump Sum.

Itemized Category Summary Sheet - Technology

Alteration: ACES at Wintergreen
State Project Number: 244-0045 MAG

Name of Bidder: _____

Equipment in this Item are to be publically Bid with equals based on the Basis-of-Design.

Category TE-04 - UPS

Item Code	Total Qty.	Item Description	Unit Price	Total Price
TE-04-01	3	3KVA UPS		
TE-04-04	3	Mounting Rails		
TE-04-10	1	Installation & Configuration		

Bid Total Price for Category:
Dollars

For the delivery & installation of Base Bid Equipment in accordance with the Contract Documents, including all supervision, labor, services & equipment necessary for the completion of the work for the above Lump Sum.

Itemized Category Summary Sheet - Technology

Alteration: ACES at Wintergreen
State Project Number: 244-0045 MAG

Name of Bidder: _____

Equipment in this Item are to be publically Bid with equals based on the Basis-of-Design.

Category TE-05 - Audio Visual Equipment

Item Code	Total Qty.	Item Description	Unit Price	Total Price
TE-05-01	1	Projector with Lens & Mounting Bracket		
TE-05-02	1	Motorized Projection Screen, 18'		
TE-05-03	15	RGBW LED Moving Track Head		

Bid Total Price for Category:
Dollars

For the delivery & installation of Base Bid Equipment in accordance with the Contract Documents, including all supervision, labor, services & equipment necessary for the completion of the work for the above Lump Sum.

DRAFT AIA® Document A305® – 2020

Contractor's Qualification Statement

THE PARTIES SHOULD EXECUTE A SEPARATE CONFIDENTIALITY AGREEMENT IF THEY INTEND FOR ANY OF THE INFORMATION IN THIS A305-2020 TO BE HELD CONFIDENTIAL.

SUBMITTED BY:

(Organization name and address.)

« »

SUBMITTED TO:

(Organization name and address.)

« »

TYPE OF WORK TYPICALLY PERFORMED

(Indicate the type of work your organization typically performs, such as general contracting, construction manager as constructor services, HVAC contracting, electrical contracting, plumbing contracting, or other.)

« »

THIS CONTRACTOR'S QUALIFICATION STATEMENT INCLUDES THE FOLLOWING:

(Check all that apply.)

- ☐ Exhibit A – General Information
- ☐ Exhibit B – Financial and Performance Information
- ☐ Exhibit C – Project-Specific Information
- ☐ Exhibit D – Past Project Experience
- ☐ Exhibit E – Past Project Experience (Continued)

CONTRACTOR CERTIFICATION

The undersigned certifies under oath that the information provided in this Contractor's Qualification Statement is true and sufficiently complete so as not to be misleading.

Organization's Authorized Representative
Signature

« »

Date

« »

Printed Name and Title

NOTARY

State of: « »

County of: « »

Signed and sworn to before me this « » day of « » « »

Notary Signature

My commission expires: « »

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

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



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COMMISSION ON HUMAN RIGHTS AND OPPORTUNITIES
CONTRACT COMPLIANCE REGULATIONS
NOTIFICATION TO BIDDERS

(Revised 09/3/15)

The contract to be awarded is subject to contract compliance requirements mandated by Sections 4a-60 and 4a-60a of the Connecticut General Statutes; and, when the awarding agency is the State, Sections 46a-71(d) and 46a-81i(d) of the Connecticut General Statutes. There are Contract Compliance Regulations codified at Section 46a-68j-21 through 43 of the Regulations of Connecticut State Agencies, which establish a procedure for awarding all contracts covered by Sections 4a-60 and 46a-71(d) of the Connecticut General Statutes.

According to Section 46a-68j-30(9) of the Contract Compliance Regulations, every agency awarding a contract subject to the contract compliance requirements has an obligation to “aggressively solicit the participation of legitimate minority business enterprises as bidders, contractors, subcontractors and suppliers of materials.” “Minority business enterprise” is defined in Section 4a-60 of the Connecticut General Statutes as a business wherein fifty-one percent or more of the capital stock, or assets belong to a person or persons: “(1) Who are active in daily affairs of the enterprise; (2) who have the power to direct the management and policies of the enterprise; and (3) who are members of a minority, as such term is defined in subsection (a) of Section 32-9n.” “Minority” groups are defined in Section 32-9n of the Connecticut General Statutes as “(1) Black Americans . . . (2) Hispanic Americans . . . (3) persons who have origins in the Iberian Peninsula . . . (4) Women . . . (5) Asian Pacific Americans and Pacific Islanders; (6) American Indians . . .” An individual with a disability is also a minority business enterprise as provided by Section 4a-60g of the Connecticut General Statutes. The above definitions apply to the contract compliance requirements by virtue of Section 46a-68j-21(11) of the Contract Compliance Regulations.

The awarding agency will consider the following factors when reviewing the bidder’s qualifications under the contract compliance requirements:

- (a) the bidder’s success in implementing an affirmative action plan;
- (b) the bidder’s success in developing an apprenticeship program complying with Sections 46a-68-1 to 46a-68-17 of the Administrative Regulations of Connecticut State Agencies, inclusive;
- (c) the bidder’s promise to develop and implement a successful affirmative action plan;
- (d) the bidder’s submission of employment statistics contained in the “Employment Information Form”, indicating that the composition of its workforce is at or near parity when compared to the racial and sexual composition of the workforce in the relevant labor market area; and
- (e) the bidder’s promise to set aside a portion of the contract for legitimate minority business enterprises. See Section 46a-68j-30(10)(E) of the Contract Compliance Regulations.

INSTRUCTIONS AND OTHER INFORMATION

The following **BIDDER CONTRACT COMPLIANCE MONITORING REPORT** must be completed in full, signed, and submitted with the bid for this contract. The contract awarding agency and the Commission on Human Rights and Opportunities will use the information contained thereon to determine the bidders compliance to Sections 4a-60 and 4a-60a CONN. GEN. STAT., and Sections 46a-68j-23 of the Regulations of Connecticut State Agencies regarding equal employment opportunity, and the bidder’s good faith efforts to include minority business enterprises as subcontractors and suppliers for the work of the contract.

1) Definition of Small Contractor

Section 4a-60g CONN. GEN. STAT. defines a small contractor as a company that has been doing business under the same management and control and has maintained its principal place of business in Connecticut for a one year period immediately prior to its application for certification under this section, had gross revenues not exceeding fifteen million dollars in the most recently completed fiscal year, and at least fifty-one percent of the ownership of which is held by a person or persons who are active in the daily affairs of the company, and have the power to direct the management and policies of the company, except that a nonprofit corporation shall be construed to be a small contractor if such nonprofit corporation meets the requirements of subparagraphs (A) and (B) of subdivision 4a-60g CONN. GEN. STAT.

MANAGEMENT: Managers plan, organize, direct, and control the major functions of an organization through subordinates who are at the managerial or supervisory level. They make policy decisions and set objectives for the company or departments. They are not usually directly involved in production or providing services. Examples include top executives, public relations managers, managers of operations specialties (such as financial, human resources, or purchasing managers), and construction and engineering managers.

BUSINESS AND FINANCIAL OPERATIONS: These occupations include managers and professionals who work with the financial aspects of the business. These occupations include accountants and auditors, purchasing agents, management analysts, labor relations specialists, and budget, credit, and financial analysts.

MARKETING AND SALES: Occupations related to the act or process of buying and selling products and/or services such as sales engineer, retail sales workers and sales representatives including wholesale.

LEGAL OCCUPATIONS: In-House Counsel who is charged with providing legal advice and services in regards to legal issues that may arise during the course of standard business practices. This category also includes assistive legal occupations such as paralegals, legal assistants.

COMPUTER SPECIALISTS: Professionals responsible for the computer operations within a company are grouped in this category. Examples of job titles in this category include computer programmers, software engineers, database administrators, computer scientists, systems analysts, and computer support specialists.

ARCHITECTURE AND ENGINEERING: Occupations related to architecture, surveying, engineering, and drafting are included in this category. Some of the job titles in this category include electrical and electronic engineers, surveyors, architects, drafters, mechanical engineers, materials engineers, mapping technicians, and civil engineers.

OFFICE AND ADMINISTRATIVE SUPPORT: All clerical-type work is included in this category. These jobs involve the preparing, transcribing, and preserving of written communications and records; collecting accounts; gathering and distributing information; operating office machines and electronic data processing equipment; and distributing mail. Job titles listed in this category include telephone operators, bill and account collectors, customer service representatives, dispatchers, secretaries and administrative assistants, computer operators and clerks (such as payroll, shipping, stock, mail and file).

BUILDING AND GROUNDS CLEANING AND MAINTENANCE: This category includes occupations involving landscaping, housekeeping, and janitorial services. Job titles found in this category include supervisors of landscaping or housekeeping, janitors, maids, grounds maintenance workers, and pest control workers.

CONSTRUCTION AND EXTRACTION: This category includes construction trades and related occupations. Job titles found in this category include boilermakers, masons (all types), carpenters, construction laborers, electricians, plumbers (and related trades), roofers, sheet metal workers, elevator installers, hazardous materials removal workers, paperhangers, and painters. Paving, surfacing, and tamping equipment operators; drywall and ceiling tile installers; and carpet, floor and tile installers and finishers are also included in this category. First line supervisors, foremen, and helpers in these trades are also grouped in this category..

INSTALLATION, MAINTENANCE AND REPAIR: Occupations involving the installation, maintenance, and repair of equipment are included in this group. Examples of job titles found here are heating, ac, and refrigeration mechanics and installers; telecommunication line installers and repairers; heavy vehicle and mobile equipment service technicians and mechanics; small engine mechanics; security and fire alarm systems installers; electric/electronic repair, industrial, utility and transportation equipment; millwrights; riggers; and manufactured building and mobile home installers. First line supervisors, foremen, and helpers for these jobs are also included in the category.

MATERIAL MOVING WORKERS: The job titles included in this group are Crane and tower operators; dredge, excavating, and lading machine operators; hoist and winch operators; industrial truck and tractor operators; cleaners of vehicles and equipment; laborers and freight, stock, and material movers, hand; machine feeders and offbearers; packers and packagers, hand; pumping station operators; refuse and recyclable material collectors; and miscellaneous material moving workers.

PRODUCTION WORKERS: The job titles included in this category are chemical production machine setters, operators and tenders; crushing/grinding workers; cutting workers; inspectors, testers sorters, samplers, weighers; precious stone/metal workers; painting workers; cementing/gluing machine operators and tenders; etchers/engravers; molders, shapers and casters except for metal and plastic; and production workers.

<p><u>White</u> (not of Hispanic Origin)- All persons having origins in any of the original peoples of Europe, North Africa, or the Middle East.</p> <p><u>Black</u>(not of Hispanic Origin)- All persons having origins in any of the Black racial groups of Africa.</p> <p><u>Hispanic</u>- All persons of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race.</p>	<p><u>Asian or Pacific Islander</u>- All persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands. This area includes China, India, Japan, Korea, the Philippine Islands, and Samoa.</p> <p><u>American Indian or Alaskan Native</u>- All persons having origins in any of the original peoples of North America, and who maintain cultural identification through tribal affiliation or community recognition.</p>
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BIDDER CONTRACT COMPLIANCE MONITORING REPORT

PART I - Bidder Information

Company Name Street Address City & State Chief Executive	Bidder Federal Employer Identification Number _____ Or Social Security Number _____
Major Business Activity (brief description)	Bidder Identification (response optional/definitions on page 1) -Bidder is a small contractor. Yes ___ No ___ -Bidder is a minority business enterprise Yes ___ No ___ (If yes, check ownership category) Black ___ Hispanic ___ Asian American ___ American Indian/Alaskan Native ___ Iberian Peninsula ___ Individual(s) with a Physical Disability ___ Female ___
Bidder Parent Company (If any)	- Bidder is certified as above by State of CT Yes ___ No ___
Other Locations in Ct. (If any)	

PART II - Bidder Nondiscrimination Policies and Procedures

1. Does your company have a written Affirmative Action/Equal Employment Opportunity statement posted on company bulletin boards? Yes___ No___	7. Do all of your company contracts and purchase orders contain non-discrimination statements as required by Sections 4a-60 & 4a-60a Conn. Gen. Stat.? Yes___ No___
2. Does your company have the state-mandated sexual harassment prevention in the workplace policy posted on company bulletin boards? Yes___ No___	8. Do you, upon request, provide reasonable accommodation to employees, or applicants for employment, who have physical or mental disability? Yes___ No___
3. Do you notify all recruitment sources in writing of your company's Affirmative Action/Equal Employment Opportunity employment policy? Yes___ No___	9. Does your company have a mandatory retirement age for all employees? Yes___ No___
4. Do your company advertisements contain a written statement that you are an Affirmative Action/Equal Opportunity Employer? Yes ___ No ___	10. If your company has 50 or more employees, have you provided at least two (2) hours of sexual harassment training to all of your supervisors? Yes ___ No ___ NA ___
5. Do you notify the Ct. State Employment Service of all employment openings with your company? Yes ___ No ___	11. If your company has apprenticeship programs, do they meet the Affirmative Action/Equal Employment Opportunity requirements of the apprenticeship standards of the Ct. Dept. of Labor? Yes ___ No ___ NA ___
6. Does your company have a collective bargaining agreement with workers? Yes___ No___ 6a. If yes, do the collective bargaining agreements contain non-discrimination clauses covering all workers? Yes___ No___ 6b. Have you notified each union in writing of your commitments under the nondiscrimination requirements of contracts with the state of Ct? Yes___ No___	12. Does your company have a written affirmative action Plan? Yes ___ No ___ If no, please explain. 13. Is there a person in your company who is responsible for equal employment opportunity? Yes ___ No ___ If yes, give name and phone number. _____

Part III - Bidder Subcontracting Practices

(Page 4)

1. Will the work of this contract include subcontractors or suppliers? Yes__ No__

1a. If yes, please list all subcontractors and suppliers and report if they are a small contractor and/or a minority business enterprise. (defined on page 1 / use additional sheet if necessary)

1b. Will the work of this contract require additional subcontractors or suppliers other than those identified in 1a. above?

Yes__ No__

PART IV - Bidder Employment Information

Date:

JOB CATEGORY *	OVERALL TOTALS	WHITE (not of Hispanic origin)		BLACK (not of Hispanic origin)		HISPANIC		ASIAN or PACIFIC ISLANDER		AMERICAN INDIAN or ALASKAN NATIVE	
		Male	Female	Male	Female	Male	Female	Male	Female	male	female
Management											
Business & Financial Ops											
Marketing & Sales											
Legal Occupations											
Computer Specialists											
Architecture/Engineering											
Office & Admin Support											
Bldg/ Grounds Cleaning/Maintenance											
Construction & Extraction											
Installation , Maintenance & Repair											
Material Moving Workers											
Production Occupations											
TOTALS ABOVE											
Total One Year Ago											
FORMAL ON THE JOB TRAINEES (ENTER FIGURES FOR THE SAME CATEGORIES AS ARE SHOWN ABOVE)											
Apprentices											
Trainees											

*NOTE: JOB CATEGORIES CAN BE CHANGED OR ADDED TO (EX. SALES CAN BE ADDED OR REPLACE A CATEGORY NOT USED IN YOUR COMPANY)

1. Which of the following recruitment sources are used by you? (Check yes or no, and report percent used)				2. Check (X) any of the below listed requirements that you use as a hiring qualification (X)		3. Describe below any other practices or actions that you take which show that you hire, train, and promote employees without discrimination
SOURCE	YES	NO	% of applicants provided by source			
State Employment Service					Work Experience	
Private Employment Agencies					Ability to Speak or Write English	
Schools and Colleges					Written Tests	
Newspaper Advertisement					High School Diploma	
Walk Ins					College Degree	
Present Employees					Union Membership	
Labor Organizations					Personal Recommendation	
Minority/Community Organizations					Height or Weight	
Others (please identify)					Car Ownership	
					Arrest Record	
					Wage Garnishments	

Certification (Read this form and check your statements on it CAREFULLY before signing). I certify that the statements made by me on this BIDDER CONTRACT COMPLIANCE MONITORING REPORT are complete and true to the best of my knowledge and belief, and are made in good faith. I understand that if I knowingly make any misstatements of facts, I am subject to be declared in non-compliance with Section 4a-60, 4a-60a, and related sections of the CONN. GEN. STAT.

(Signature)	(Title)	(Date Signed)	(Telephone)
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DRAFT AIA® Document A151™ – 2019

Standard Form of Agreement between Owner and Vendor for Furniture, Furnishings, and Equipment (FF&E)

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

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

« »
« »
« »
« »

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

« »
« »
« »
« »

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

« »
« »
« »

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

« »
« »
« »
« »

The Owner and Vendor agree as follows.

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

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

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ARTICLE 1 GENERAL PROVISIONS

§ 1.1 Governing Law, including the Uniform Commercial Code

This Agreement is for the sale of goods, specifically furniture, furnishings, and equipment (FF&E), and shall be governed by the law of the place where the Project is located, excluding that jurisdiction's choice of law rule and including the jurisdiction's Uniform Commercial Code (UCC) as adopted. If this Agreement conflicts with terms provided by the UCC, the Agreement shall prevail. If the parties have selected arbitration as the method of binding dispute resolution, the Federal Arbitration Act shall govern Section 14.7.

§ 1.2 The Contract Documents

The Contract Documents are enumerated in Article 15 and consist of this Agreement (including, if applicable, Supplementary and other Conditions of the Contract), Drawings, Specifications, Addenda issued prior to the execution of this Agreement, other documents listed in this Agreement, and Modifications issued after execution of this Agreement. The intent of the Contract Documents is to include all items necessary for the proper execution and completion of the Work by the Vendor. The Contract Documents are complementary, and what is required by one shall be as binding as if required by all. Performance by the Vendor shall be required to the extent consistent with the Contract Documents and reasonably inferable from them as being necessary to produce the indicated results.

§ 1.3 The Contract

The Contract Documents form the Contract for the Work. The Contract represents the entire and integrated agreement between the parties hereto and supersedes all prior proposals, offers, terms and conditions, negotiations, representations, or agreements, either written or oral. The Contract may be amended or modified only by a Modification. The Contract Documents shall not be construed to create a contractual relationship of any kind between any persons or entities other than the Owner and the Vendor. The primary purpose of the Contract is the sale of goods, and any services provided are incidental to such primary purpose.

§ 1.4 Modifications

A Modification is a written amendment to the Contract for changes in the Work signed by both parties or a written order for a minor change in the Work signed by the Architect. A minor change in the Work is a change that is consistent with the intent of the Contract Documents and does not involve an adjustment in the Contract Sum or an extension of the Contract Time.

§ 1.5 The Work

The Work means the Vendor's performance, including the sale of FF&E and any incidental fabrication, shipping, warehousing, delivery, installation, and other items or services required by the Contract Documents and provided, or to be provided, by the Vendor. The Work includes all labor, materials, temporary protection, storage, and equipment necessary to fulfill the Vendor's obligations, except as specifically indicated in the Contract Documents to be the responsibility of others. The Work may constitute the whole or a part of the Project.

§ 1.6 Instruments of Service

Instruments of Service are representations, in any medium of expression now known or later developed, of the tangible and intangible creative work performed by the Architect and the Architect's consultants under their respective professional services agreements. Instruments of Service may include, without limitation, studies, surveys, models, sketches, drawings, specifications, and other similar materials.

§ 1.7 Ownership and Use of Drawings, Specifications, and Other Instruments of Service

§ 1.7.1 The Architect and the Architect's consultants shall be deemed the authors and owners of their respective Instruments of Service, including the Drawings and Specifications, and will retain all common law, statutory, and other reserved rights in their Instruments of Service, including copyrights. The Vendor, sub-vendors, and suppliers shall not own or claim a copyright in the Instruments of Service. Submittal or distribution to meet official regulatory requirements or for other purposes in connection with the Project is not to be construed as publication in derogation of the Architect's or Architect's consultants' reserved rights.

§ 1.7.2 The Vendor, sub-vendors, and suppliers are authorized to use and reproduce the Instruments of Service provided to them, subject to the protocols established pursuant to Sections 1.8 and 1.9, solely and exclusively for execution of the Work. All copies made under this authorization shall bear the copyright notice, if any, shown on the Instruments of Service. The Vendor, sub-vendors, and suppliers may not use the Instruments of Service on other projects, or in connection with additions to this Project outside the scope of the Work without the specific written consent of the Owner, Architect, and the Architect's consultants.

§ 1.8 Digital Data Use and Transmission

The parties shall agree upon written protocols governing the transmission and use of, and reliance on, Instruments of Service or any other information or documentation in digital form.

§ 1.9 Building Information Models Use and Reliance

Any use of, or reliance on, all or a portion of a building information model without agreement to written protocols governing the use of, and reliance on, the information contained in the model shall be at the using or relying party's sole risk and without liability to the other party and its contractors or consultants, the authors of, or contributors to, the building information model, and each of their agents and employees.

§ 1.10 Severability

The invalidity of any provision of the Contract Documents shall not invalidate the Contract or its remaining provisions. If it is determined that any provision of the Contract Documents violates any law, or is otherwise invalid or unenforceable, then that provision shall be revised to the extent necessary to make that provision legal and enforceable. In such case the Contract Documents shall be construed, to the fullest extent permitted by law, to give effect to the parties' intentions and purposes in executing the Contract.

§ 1.11 Notice

§ 1.11.1 Except as otherwise provided in Section 1.11.2, where the Contract Documents require one party to notify or give notice to the other party, such notice shall be provided in writing to the designated representative of the party to whom the notice is addressed and shall be deemed to have been duly served if delivered in person, by mail, by courier, or by electronic transmission in accordance with a building information modeling exhibit, if completed, or as otherwise set forth below:

(If other than in accordance with a building information modeling exhibit, insert requirements for delivering Notice in electronic format such as name, title, and email address of the recipient and whether and how the system will be required to generate a read receipt for the transmission.)

<< >>

§ 1.11.2 Notice of Claims shall be provided in writing and shall be deemed to have been duly served only if delivered to the designated representative of the party to whom the notice is addressed by certified or registered mail, or by courier providing proof of delivery.

§ 1.12 Assignment of Contract

Neither party to the Contract shall assign the Contract without written consent of the other, except that the Owner may, without consent of the Vendor, assign the Contract to a lender providing financing for the Project if the lender assumes the Owner's rights and obligations under the Contract Documents. The Vendor shall execute all consents reasonably required to facilitate such assignment.

ARTICLE 2 CONTRACT SUM AND PAYMENTS

§ 2.1 Contract Sum

§ 2.1.1 The Owner shall pay the Vendor the Contract Sum in current funds for the Vendor's performance of the Contract. The Contract Sum shall be << >> (\$ << >>), subject to additions and deductions as provided in the Contract Documents.

§ 2.1.2 Alternates

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

Item	Price

§ 2.1.2.2 Subject to the conditions noted below, the following alternates may be accepted by the Owner following execution of this Agreement. Upon acceptance, the Owner shall issue a Modification to this Agreement. (Insert below each alternate and the conditions that must be met for the Owner to accept the alternate.)

Item	Price	Conditions for Acceptance

§ 2.1.3 Unit prices, if any:

(Identify the item and state the unit price and the quantity limitations, if any, to which the unit price will be applicable.)

Item	Units and Limitations	Price per Unit (\$0.00)

§ 2.1.4 Allowances, if any, included in the Contract Sum:

(Identify each allowance.)

Item	Price

§ 2.1.5 Liquidated damages, if any:

(Insert terms and conditions for liquidated damages, if any.)

<< >>

§ 2.1.6 Other:

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

<< >>

§ 2.2 Payments

§ 2.2.1 The Owner shall make payments to the Vendor in conformance with the following payment terms:

(Insert payment terms, such as payment due dates, deposit requirements, and prompt payment discounts, if any.)

« »

§ 2.2.2 When payment is due pursuant to the payment terms of Section 2.2.1, the Vendor shall submit to the Owner an itemized invoice, supported by data substantiating the Vendor's right to payment.

§ 2.2.3 Except with the Owner's knowledge and consent, the Vendor shall not engage in any activity, or offer any employment, interest, or contribution to the Owner's employees or consultants, that would reasonably appear to compromise the Owner's employees' or consultants' judgment with respect to this Project.

ARTICLE 3 TIME

§ 3.1 Contract Time

§ 3.1.1 Unless otherwise provided, Contract Time is the period of time, including authorized adjustments, allotted in the Contract Documents for completion of the Work. The Contract Time shall be measured from the date of commencement. The term "day" as used in the Contract Documents shall mean calendar day unless otherwise specifically defined.

§ 3.1.2 Time limits stated in the Contract Documents are of the essence of the Contract. By executing this Agreement, the Vendor confirms that the Contract Time is a reasonable period for performing the Work.

§ 3.1.3 If the Vendor is delayed at any time in the commencement or progress of the Work by (1) changes ordered in the Work; (2) labor disputes, fire, unusual delay in deliveries, abnormal adverse weather conditions not reasonably anticipatable, unavoidable casualties, or any causes beyond the Vendor's control; or (3) other causes that the Vendor asserts, and the Architect determines, justify delay, then the Contract Time shall be extended for such reasonable time as the Architect may determine, subject to the provisions of Article 14.

§ 3.1.4 If the Vendor fails to achieve completion of the Work as provided in this Article 3, liquidated damages, if any, shall be assessed as set forth in Section 2.1.5.

§ 3.2 Date of Commencement

The date of commencement of the Work shall be:

(Check one of the following boxes.)

☐ The date of this Agreement.

☐ A date set forth in a notice to proceed issued by the Owner.

☐ Established as follows:

(Insert a date or a means to determine the date of commencement of the Work.)

« »

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

§ 3.3 Completion

§ 3.3.1 Completion of the Work occurs upon acceptance of all FF&E in the Contract Documents in accordance with Article 8.

§ 3.3.2 Subject to adjustments of the Contract Time as provided in the Contract Documents, the Vendor shall achieve completion of the entire Work:

(Check the appropriate box and complete the necessary information.)

☐ Not later than « » (« ») calendar days from the date of commencement of the Work.

☐ By the following date: « »

§ 3.3.3 Subject to adjustments of the Contract Time as provided in the Contract Documents, if portions of the Work are to be completed prior to completion of the entire Work, the Vendor shall achieve completion of such portions by the following dates:

Portion of Work	Completion Date

ARTICLE 4 OWNER

§ 4.1 The Owner's Representative

The Owner shall identify a representative authorized to act on behalf of the Owner with respect to the Project. The Owner's representative shall not be changed without ten days' prior notice to the Vendor. The Owner identifies the following representative:

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

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§ 4.2 Information and Services Required of the Owner

§ 4.2.1 The Owner shall retain an architect lawfully licensed to practice architecture, or an entity lawfully practicing architecture, in the jurisdiction where the Project is located. That person or entity is identified as the Architect in the Agreement and is referred to throughout the Contract Documents as if singular in number.

§ 4.2.2 Unless otherwise provided in the Contract Documents, the Owner shall provide

- .1 areas of the Project premises that the Vendor may use to perform the Work;
- .2 access to the Project premises for the Vendor at reasonable times;
- .3 information regarding any restrictions on the use of, or access to, the Project premises;
- .4 suitable space for receipt, inspection, acceptance, and staging of materials and FF&E;
- .5 utilities and facilities on the Project premises and vertical transportation necessary for progress and execution of the Work; and
- .6 a secured premises for storage of FF&E until acceptance.

§ 4.2.3 The Owner shall furnish information or services required of the Owner by the Contract Documents with reasonable promptness. The Owner shall furnish any other information or services under the Owner's control and relevant to the Vendor's performance of the Work with reasonable promptness after receiving the Vendor's written request for such information or services.

ARTICLE 5 VENDOR

§ 5.1 The Vendor's Representative

The Vendor shall identify a representative authorized to act on behalf of the Vendor with respect to the Project. The Vendor's representative shall not be changed without ten days' prior notice to the Owner and Architect. The Vendor identifies the following representative:

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

<< >>
<< >>
<< >>
<< >>
<< >>
<< >>

§ 5.2 The Vendor shall not be relieved of its obligations to perform the Work in accordance with the Contract Documents by activities or duties of the Architect in the Architect's administration of the Contract.

§ 5.3 The Vendor shall coordinate its Work with the work provided by the Owner and the Owner's other vendors, consultants, and contractors. The Vendor may communicate with the Owner's other vendors, consultants, and contractors, for the purposes of completing the Work. The Vendor shall keep the Owner reasonably informed of any such communications. The Vendor shall be entitled to rely on the accuracy and completeness of work and information furnished by the Owner and the Owner's other vendors, consultants, and contractors. The Vendor shall provide prompt written notice to the Owner if the Vendor becomes aware of any error, omission, or inconsistency in such work or information.

§ 5.4 Review of Contract Documents and Inspection of Project Premises by Vendor

§ 5.4.1 Execution of the Contract by the Vendor is a representation that the Vendor has visited the Project premises, if required in the Contract Documents, and correlated personal observations with requirements of the Contract Documents.

§ 5.4.2 Before starting each portion of the Work, including placing orders for FF&E, the Vendor shall (1) carefully study and compare the various Contract Documents relative to that portion of the Work, as well as the information furnished by the Owner pursuant to Section 4.2; (2) visit and inspect the Project premises in order to gain an understanding of the conditions under which the Work is to be performed; (3) determine availability of facilities for access, delivery, transportation, and staging; (4) determine any restrictions imposed by the Owner and the Owner's separate vendors and contractors; and (5) correlate observations with the requirements of the Contract Documents. The Vendor shall promptly report to the Owner and Architect conditions observed that would impede the Vendor's performance of the Work. The Vendor's obligations to review the Contract Documents are for the purpose of facilitating delivery and installation by the Vendor and are not for the purpose of discovering errors, omissions, or inconsistencies in the Contract Documents; however, the Vendor shall promptly report to the Architect any errors, inconsistencies, or omissions discovered by or made known to the Vendor as a request for information in such form as the Architect may require. It is recognized that the Vendor's review is made in the Vendor's capacity as a vendor and not as a licensed design professional, unless otherwise specifically provided for in the Contract Documents.

§ 5.4.3 The Vendor is not required to ascertain that the Contract Documents are in accordance with applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities, but the Vendor shall promptly report to the Architect any nonconformity discovered by or made known to the Vendor as a request for information in such form as the Architect may require.

§ 5.4.4 If the Vendor believes that additional cost or time is involved because of clarifications or instructions the Architect issues in response to the Vendor's notices or requests for information pursuant to Sections 5.4.2 or 5.4.3, the Vendor shall submit Claims as provided in Article 14. If the Vendor fails to perform the obligations of Sections 5.4.2 or 5.4.3, the Vendor shall pay such costs and damages to the Owner, subject to Section 14.12, as would have been avoided if the Vendor had performed such obligations. If the Vendor performs those obligations, the Vendor shall not be liable to the Owner or Architect for damages resulting from errors, inconsistencies, or omissions in the Contract Documents, for differences between field measurements or conditions and the Contract Documents, or for nonconformities of the Contract Documents to applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities.

§ 5.5 Supervision

§ 5.5.1 The Vendor shall supervise and direct the Work using the Vendor's best skill and attention. The Vendor shall be solely responsible for and have control over the means, methods, techniques, sequences, and procedures of fabrication, shipment, delivery, and installation, and for coordinating all portions of the Work under the Contract, unless the Contract Documents give other specific instructions concerning these matters.

§ 5.5.2 The Vendor shall be responsible to the Owner for acts and omissions of the Vendor's employees, sub-vendors, and their agents and employees, and other persons or entities performing portions of the Work for or on behalf of the Vendor or any of its sub-vendors.

§ 5.5.3 The Vendor shall be responsible for inspection of portions of the Work already performed to determine that such portions are in proper condition for subsequent Work.

§ 5.6 Labor and Materials

§ 5.6.1 Unless otherwise provided in the Contract Documents, the Vendor shall provide and pay for labor, materials, tools, installation equipment and machinery, delivery, and other facilities and services necessary for proper execution and

completion of the Work whether temporary or permanent and whether or not incorporated or to be incorporated in the Work.

§ 5.6.2 The Vendor shall enforce strict discipline and good order among the Vendor's employees and other persons carrying out the Work. The Vendor shall not permit employment of unfit persons or persons not skilled in tasks assigned to them.

§ 5.6.3 The Vendor shall make no substitution or change in the Contract Documents unless done in accordance with a Modification, and after providing the Architect notice and a reasonable opportunity to evaluate the proposed substitution or change and consult with the Owner.

§ 5.7 Taxes

The Vendor shall pay sales, consumer, use, and other similar taxes that are legally enacted when quotes are received or negotiations concluded, whether or not yet effective or merely scheduled to go into effect.

§ 5.8 Permits, Fees, Notices, and Compliance with Laws

§ 5.8.1 Unless otherwise provided in the Contract Documents, the Vendor shall secure and pay for permits, fees, licenses, and inspections by government agencies necessary for proper execution and completion of the Work that are customarily secured after execution of the Contract and legally required at the time bids are received or negotiations concluded.

§ 5.8.2 The Vendor shall comply with and give notices required by applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities applicable to performance of the Work. If the Vendor performs Work knowing it to be contrary to applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities, the Vendor shall assume appropriate responsibility for such Work and shall bear the costs attributable to correction.

§ 5.9 Allowances

The Vendor shall include in the Contract Sum all allowances stated in the Contract Documents. The Owner shall select items under allowances with reasonable promptness. Allowance amounts shall include the costs to the Vendor of items delivered at the Project premises and all required taxes, less applicable trade discounts. Vendor's costs for unloading and handling at the Project premises, labor, installation, overhead, profit, and other expenses contemplated for stated allowance amounts shall be included in the Contract Sum but not in the allowance. Whenever costs are more than or less than allowances, the Contract Sum shall be adjusted accordingly by Modification. The amount of the Modification shall reflect the difference between actual costs and the allowances under Section 2.1.4.

§ 5.10 Vendor's Schedules

§ 5.10.1 The Vendor, promptly after being awarded the Contract, shall submit for the Owner's and Architect's information a progress schedule for the Work. The schedule shall not exceed time limits current under the Contract Documents, shall be revised at appropriate intervals as required by the progress of the Work and Project, shall be related to the entire Project, and shall provide for expeditious and practicable execution of the Work.

§ 5.10.2 The Vendor shall perform the Work in general accordance with the most recent schedule submitted to the Owner and Architect.

§ 5.10.3 The Vendor's progress schedule shall indicate dates for commencement and completion of phases of the Work within the Contract Time, including dates for order placement, fabrication, shipping, delivery, and installation. The schedule shall indicate other critical dates, such as deadlines for approval of submittals of colors, finishes, and materials. The Vendor shall obtain and submit for the Owner's and the Architect's information written confirmation from sub-vendors of dates of fabrication and delivery.

§ 5.10.4 The Vendor shall cooperate with the Owner and Architect in coordinating the Vendor's progress schedule with those of contractors and separate vendors and with the requirements of the Owner and Architect. The Vendor shall cooperate in determining mutually acceptable dates and times for delivery, installation, and inspection of the Work, and use of services and facilities provided to the Vendor, all to be confirmed in writing within a reasonable time in advance of such dates and times.

§ 5.11 Submittals

§ 5.11.1 The Vendor shall review for compliance with the Contract Documents and submit to the Architect shop drawings, product data, samples, and similar submittals required by the Contract Documents in coordination with the Vendor's progress schedule and in such sequence as to allow the Architect reasonable time for review. By submitting shop drawings, product data, samples, and similar submittals, the Vendor represents to the Owner and Architect that the Vendor has (1) reviewed and approved them; (2) determined and verified materials, field measurements, and field installation criteria related thereto, or will do so; and (3) checked and coordinated the information contained within such submittals with the requirements of the Work and of the Contract Documents. The Work shall be in accordance with approved submittals. Shop drawings, product data, samples and similar submittals are not Contract Documents.

§ 5.11.2 The Vendor shall provide the Owner with available manufacturer's warranty documents, product data, and material safety data sheets.

§ 5.12 Cleaning Up

The Vendor shall keep the Project premises and surrounding area free from accumulation of waste materials and rubbish caused by operations under the Contract. At completion of the Work, the Vendor shall remove waste materials, rubbish, the Vendor's tools, construction equipment, machinery, and surplus material from and about the Project.

§ 5.13 Access to Work

The Vendor shall provide the Owner and Architect with reasonable access to the Work in preparation and progress wherever located.

§ 5.14 Indemnification

§ 5.14.1 To the fullest extent permitted by law, the Vendor shall indemnify and hold harmless the Owner, Architect, Architect's consultants, and agents and employees of any of them from and against claims, damages, losses and expenses, including but not limited to attorneys' fees, arising out of or resulting from performance of the Work, provided that such claim, damage, loss, or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself), but only to the extent caused by the negligent acts or omissions of the Vendor, a sub-vendor, anyone directly or indirectly employed by them, or anyone for whose acts they may be liable, regardless of whether or not such claim, damage, loss, or expense is caused in part by a party indemnified hereunder. Such obligation shall not be construed to negate, abridge, or reduce other rights or obligations of indemnity which would otherwise exist as to a party or person described in this Section 5.14.1.

§ 5.14.2 In claims against any person or entity indemnified under Section 5.14.1 by an employee of the Vendor, a sub-vendor, anyone directly or indirectly employed by them, or anyone for whose acts they may be liable, the indemnification obligation under Section 5.14.1 shall not be limited by a limitation on amount or type of damages, compensation, or benefits payable by or for the Vendor or sub-vendor under workers' compensation acts, disability benefit acts, or other employee benefit acts.

§ 5.14.3 Provided the Owner has fulfilled its payment obligations under the Contract Documents, the Vendor shall defend and indemnify the Owner from all loss, liability, damage or expense, including reasonable attorney's fees and litigation expenses, arising out of any lien claim or other claim for payment by any sub-vendor or supplier of any tier. Upon receipt of notice of a lien claim or other claim for payment, the Owner shall notify the Vendor. If approved by the applicable court, when required, the Vendor may substitute a surety bond for the property against which the lien or other claim for payment has been asserted.

ARTICLE 6 TITLE AND RISK OF LOSS

§ 6.1 Title to all FF&E shall be transferred to the Owner upon acceptance in accordance with Article 8.

§ 6.2 The risk of loss with respect to all FF&E provided by the Vendor shall remain with the Vendor, and the Owner has no obligation to insure such FF&E, until acceptance in accordance with Article 8.

ARTICLE 7 DELIVERY AND INSTALLATION

§ 7.1 The Vendor shall deliver FF&E in accordance with the Vendor's progress schedule, or at a time agreed upon by the Owner and Architect, and in accordance with Article 5.

§ 7.2 Delivery and installation of all FF&E shall be made at the Project premises unless otherwise specified in the Contract Documents.

§ 7.3 The Vendor shall coordinate with the Owner regarding the logistics of the Vendor's delivery and installation obligations at the Project premises.

ARTICLE 8 ACCEPTANCE

§ 8.1 The Owner and Architect may conduct a preliminary inspection of FF&E within seven days after its delivery to the Project premises for the purpose of verifying the delivery and quantities. Preliminary inspections shall not constitute acceptance of, taking charge over, or taking control of, such FF&E. The Architect shall report to the Vendor any defects, damage, deficiencies, or nonconformity observed during the preliminary inspection.

§ 8.2 When the Vendor considers the Work, or a portion thereof which the Owner agrees to accept separately, to be complete, the Vendor shall notify the Owner and Architect. The Vendor shall allow the Owner and Architect a reasonable amount of time to inspect the FF&E to determine, based on conformance with the Contract Documents, if it is accepted or rejected in whole or in part. Based on the Architect's recommendation to the Owner and the Owner's own inspection, if any, the Owner shall accept or reject the FF&E, in whole or in part.

§ 8.3 If the Owner rejects any of the FF&E, the Owner, or the Architect acting on behalf of the Owner, shall notify the Vendor within seven days of the date of inspection, specifying the basis for such rejection. Upon rejection, the Vendor shall provide a remedy and evidence of arrangements to accomplish such remedy. The Owner shall allow the Vendor a reasonable amount of time to remedy the rejected FF&E. When the Vendor considers the remedied FF&E to be complete, the parties shall follow the procedures set forth in Section 8.2. If the Owner rejects any of the FF&E for a second time, the Owner shall promptly notify the Vendor and the Vendor shall promptly remove the rejected FF&E from the Project premises and refund payments made for such rejected goods to the Owner. If the Vendor disagrees with an Owner's rejection, the Vendor may make a claim.

§ 8.4 FF&E not inspected in accordance with Section 8.2 or rejected in accordance with Section 8.3 shall be deemed accepted.

§ 8.5 The Owner's acceptance under this Article 8 cannot be revoked; however, the provisions of this Article 8 do not preclude recovery of damages as provided by law. The Owner's acceptance, or failure to discover a Vendor's breach after acceptance, shall not bar the Owner from making claims in accordance with Article 14 or from remedies and damages due to the Vendor's breach of this Agreement, including the Vendor's breach of warranties in Article 9.

ARTICLE 9 WARRANTIES

§ 9.1 The Vendor warrants to the Owner that the FF&E furnished under the Contract will be of good quality and new unless the Contract Documents require or permit otherwise. The Vendor further warrants that the FF&E will conform to the requirements of the Contract Documents. FF&E not conforming to these requirements may be considered defective. The Vendor's warranty excludes remedy for damage or defect caused by abuse, alterations to the FF&E not executed by the Vendor, improper or insufficient maintenance, improper operation, or normal wear and tear and normal usage.

§ 9.2 The Vendor assigns to the Owner all FF&E manufacturers' warranties and guarantees upon acceptance in accordance with Article 8.

§ 9.3 The Vendor hereby provides to the Owner all warranties relating to the FF&E implied by law, including the warranty of merchantability and warranty of fitness for a particular purpose.

§ 9.4 The Vendor acknowledges that no exclusion of, or limitation on, warranties contained in any proposal, product literature, or other submittal shall affect the warranties provided in this Article 9.

ARTICLE 10 ARCHITECT

§ 10.1 The Architect will provide administration of the Contract as described in the Contract Documents and will be an Owner's representative during the Vendor's performance, and until completion, of the Work. The Architect will have authority to act on behalf of the Owner only to the extent provided in the Contract Documents, unless otherwise modified in writing in accordance with other provisions of the Contract.

§ 10.2 Except as otherwise provided in the Contract Documents or when direct communications have been specially authorized, the Owner and Vendor shall endeavor to communicate with each other through the Architect about matters arising out of or relating to the Contract. Communications by and with the Architect's consultants shall be through the

Architect. Communications by and with sub-vendors and suppliers shall be through the Vendor. Communications by and with separate vendors shall be through the Owner. The Contract Documents may specify other communication protocols.

§ 10.3 The Architect will assist the Owner in coordinating schedules for fabrication, delivery, and installation of the Work, but will not be responsible for failure of the Vendor or a sub-vendor to meet schedules for completion or to perform their respective duties and responsibilities in conformance with applicable schedules.

§ 10.4 The Architect will visit the Project premises at intervals appropriate to the stage of the Work, or as otherwise agreed with the Owner, to become generally familiar with, and to keep the Owner informed about, the progress and quality of the portion of the Work completed, and to determine, in general, if the Work observed is being performed in a manner indicating that the Work, when fully completed, will be in accordance with the Contract Documents. The Architect will not have control over, charge of, or responsibility for, the means, methods, techniques, sequences, or procedures of fabrication, shipment, delivery, storage, or installation, or for the safety precautions and programs in connection with the Work, as these are solely the Vendor's rights and responsibilities under the Contract Documents.

§ 10.5 The Architect may order minor changes in the Work. The Architect's order for minor changes shall be in writing. If the Vendor believes that the proposed minor change in the Work will affect the Contract Sum or Contract Time, the Vendor shall notify the Architect and shall not proceed to implement the change in the Work. If the Vendor performs the Work set forth in the Architect's order for a minor change without prior notice to the Architect that such change will affect the Contract Sum or Contract Time, the Vendor waives any adjustment to the Contract Sum or extension of the Contract Time.

§ 10.6 The Architect will conduct inspections of FF&E and provide recommendations as set forth in Article 8. Pursuant to Article 8, the Architect is only responsible for identifying defects, deficiencies, or nonconformities that the Architect actually observes, or reasonably should observe, during its inspections. The Architect is not required to make exhaustive or continuous inspections to fulfill its responsibilities in Article 8 and has no responsibility to discover latent defects.

§ 10.7 The Architect will review and approve or take other appropriate action upon the Vendor's submittals such as shop drawings, product data, and samples, but only for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents.

ARTICLE 11 RELATED ACTIVITIES OF OWNER OR OF SEPARATE VENDORS

§ 11.1 The Owner shall coordinate the activities of the Owner's own forces and of each separate vendor or contractor, if any, with the Work.

§ 11.2 If the Work depends for proper execution or results upon activities by the Owner or a separate vendor or contractor, the Vendor shall, prior to proceeding with that portion of the Work, promptly report to the Owner and Architect apparent discrepancies or defects in, or arising from, the activities of the Owner or separate vendors or contractors, that would impede the Vendor in achieving proper execution and results. If the Vendor fails to report reasonably discoverable discrepancies or defects, it shall be responsible for deficiencies or defects in its Work due to such deficiencies or defects.

§ 11.3 The Vendor shall reimburse the Owner for costs the Owner incurs that are payable to a separate vendor or contractor because of the Vendor's delays, improperly timed activities, or damage to the work of a separate vendor or contractor. The Owner shall be responsible to the Vendor for costs the Vendor incurs because of the delays, improperly timed activities, or damage to the Work caused by a separate vendor or contractor.

§ 11.4 If a dispute arises among the Vendor, separate vendors, or contractors, and the Owner as to the responsibility under their respective contracts for maintaining the Project premises and surrounding area free from waste materials and rubbish, the Owner may clean up and the Architect will allocate the cost among those responsible.

ARTICLE 12 PROTECTION OF PERSONS AND PROPERTY

§ 12.1 Safety Precautions and Programs

The Vendor shall be responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the performance of the Contract. The Vendor shall take reasonable precautions for safety of, and shall provide reasonable protection to prevent damage, injury, or loss to

- .1 employees on the Work and other persons who may be affected thereby;
- .2 the Work, and materials and FF&E to be incorporated therein, whether in storage on or off the Project premises, under care, custody, or control of the Vendor or sub-vendors; and

.3 other property at the Project premises or adjacent thereto.

The Vendor shall comply with, and give notices required by, applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities bearing on safety of persons and property and their protection from damage, injury, or loss. The Vendor shall promptly remedy damage and loss to property caused in whole or in part by the Vendor, sub-vendors, or anyone directly or indirectly employed by any of them, or by anyone for whose acts they may be liable and for which the Vendor is responsible under Sections 12.1.2 and 12.1.3. The Vendor may make a claim for the cost to remedy the damage or loss to the extent such damage or loss is attributable to acts or omissions of the Owner or Architect, or of anyone for whose acts either of them may be liable, and not attributable to the fault or negligence of the Vendor. The foregoing obligations of the Vendor are in addition to the Vendor's obligations under Section 5.14.

§ 12.2 Hazardous Materials and Substances

§ 12.2.1 The Vendor is responsible for compliance with the requirements of the Contract Documents regarding hazardous materials or substances. If the Vendor encounters a hazardous material or substance not addressed in the Contract Documents, and if reasonable precautions will be inadequate to prevent foreseeable bodily injury or death to persons resulting from a material or substance, including but not limited to asbestos or polychlorinated biphenyl (PCB), encountered on the Project premises by the Vendor, the Vendor shall, upon recognizing the condition, immediately stop Work in the affected area and notify the Owner and Architect of the condition. When the material or substance has been rendered harmless, Work in the affected area shall resume upon written agreement of the Owner and Vendor. By written agreement between the Owner and Vendor, the Contract Time shall be extended appropriately, and the Contract Sum shall be increased in the amount of the Vendor's reasonable additional costs of shutdown, delay, and start-up.

§ 12.2.2 To the fullest extent permitted by law, the Owner shall indemnify and hold harmless the Vendor, sub-vendors, Architect, Architect's consultants, and agents and employees of any of them from and against claims, damages, losses, and expenses, including but not limited to attorneys' fees, arising out of or resulting from performance of the Work in the affected area, if in fact, the material or substance presents the risk of bodily injury or death as described in Section 12.2.1 and has not been rendered harmless, provided that such claim, damage, loss, or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself), except to the extent that such damage, loss, or expense is due to the fault or negligence of the party seeking indemnity.

§ 12.2.3 If, without negligence on the part of the Vendor, the Vendor is held liable by a government agency for the cost of remediation of a hazardous material or substance solely by reason of performing Work as required by the Contract Documents, the Owner shall indemnify the Vendor for all cost and expense thereby incurred.

ARTICLE 13 INSURANCE

§ 13.1 The Vendor shall purchase and maintain insurance of the types and limits of liability, containing the endorsements, and subject to the terms and conditions, as described in this Article 13 or elsewhere in the Contract Documents. The Vendor shall purchase and maintain the insurance required by this Agreement from an insurance company or insurance companies lawfully authorized to issue insurance in the jurisdiction where the Project is located. The Vendor shall maintain the required insurance from the date of commencement of the Work to the date of completion of the Work, unless a different duration is stated below.

§ 13.2 Commercial General Liability insurance for the Project written on an occurrence form with policy limits of not less than « » (\$ « ») each occurrence, « » (\$ « ») general aggregate, and « » (\$ « ») aggregate for products-completed operations hazard, providing coverage for claims including

- .1** damages because of bodily injury, sickness or disease, including occupational sickness or disease, and death of any person;
- .2** personal and advertising injury;
- .3** damages because of physical damage to or destruction of tangible property, including the loss of use of such property;
- .4** bodily injury or property damage arising out of completed operations; and
- .5** the Vendor's indemnity obligations under Section 5.14.

§ 13.3 Automobile Liability covering vehicles owned by the Vendor and non-owned vehicles used by the Vendor, with policy limits of not less than « » (\$ « ») per accident, for bodily injury, death of any person, and property damage arising out of the ownership, maintenance, and use of those motor vehicles along with any other statutorily required automobile coverage.

§ 13.4 The Vendor may achieve the required limits and coverage for Commercial General Liability and Automobile Liability through a combination of primary and excess or umbrella liability insurance, provided such primary and excess or umbrella insurance policies result in the same or greater coverage as those required under Sections 13.2 and 13.3, and in no event shall any excess or umbrella liability insurance provide narrower coverage than the primary policy. The excess policy shall not require the exhaustion of the underlying limits only through the actual payment by the underlying insurers.

§ 13.5 Workers' Compensation at statutory limits.

§ 13.6 Employers' Liability with policy limits not less than « » (\$ « ») each accident, « » (\$ « ») each employee, and « » (\$ « ») policy limit.

§ 13.7 If the Vendor is required to furnish professional services as part of the Work, the Vendor shall procure Professional Liability insurance covering performance of the professional services, with policy limits of not less than « » (\$ « ») per claim and « » (\$ « ») in the aggregate.

§ 13.8 The Vendor shall provide certificates of insurance acceptable to the Owner evidencing compliance with the requirements in this Article 13 at the following times: (1) prior to commencement of the Work; (2) upon renewal or replacement of each required policy of insurance; and (3) upon the Owner's written request. An additional certificate evidencing continuation of liability coverage, including coverage for completed operations, shall be submitted with the final invoice and thereafter upon renewal or replacement of such coverage until the expiration of the period required by Section 13.1. The certificates will show the Owner as an additional insured on the Vendor's Commercial General Liability and excess or umbrella liability policy.

§ 13.9 The Vendor shall disclose to the Owner any deductible or self- insured retentions applicable to any insurance required to be provided by the Vendor.

§ 13.10 To the fullest extent permitted by law, the Vendor shall cause the commercial liability coverage required by this Article 13 to include (1) the Owner, the Architect, and the Architect's Consultants as additional insureds for claims caused in whole or in part by the Vendor's negligent acts or omissions during the Vendor's operations; and (2) the Owner as an additional insured for claims caused in whole or in part by the Vendor's negligent acts or omissions for which loss occurs during completed operations. The additional insured coverage shall be primary and non-contributory to any of the Owner's general liability insurance policies and shall apply to both ongoing and completed operations. To the extent commercially available, the additional insured coverage shall be no less than that provided by Insurance Services Office, Inc. (ISO) forms CG 20 10 07 04, CG 20 37 07 04, and, with respect to the Architect and the Architect's Consultants, CG 20 32 07 04.

§ 13.11 Within three (3) business days of the date the Vendor becomes aware of an impending or actual cancellation or expiration of any insurance required by this Article 13, the Vendor shall provide notice to the Owner of such impending or actual cancellation or expiration. Upon receipt of notice from the Vendor, the Owner shall, unless the lapse in coverage arises from an act or omission of the Owner, have the right to stop the Work until the lapse in coverage has been cured by the procurement of replacement coverage by the Vendor. The furnishing of notice by the Vendor shall not relieve the Vendor of any contractual obligation to provide any required coverage.

§ 13.12 Other Insurance Provided by the Vendor

(List below any other insurance coverage to be provided by the Vendor and any applicable limits.)

Coverage	Limits

§ 13.13 Waiver of Subrogation

§ 13.13.1 The Owner and Vendor waive all rights against (1) each other and any of their sub-vendors, agents, and employees, each of the other; (2) the Architect and Architect's consultants; and (3) separate vendors or contractors, if any, and any of their sub-vendors, subcontractors, sub-subcontractors, agents, and employees, for damages caused by fire, or other causes of loss, to the extent those losses are covered by property insurance required by this Agreement or other property insurance applicable to the Project, except such rights as they have to proceeds of such insurance. The Owner or Vendor, as appropriate, shall require similar written waivers in favor of the individuals and entities identified above from the Architect, Architect's consultants, separate vendors and contractors, and sub-vendors, subcontractors, and sub-subcontractors. The policies of insurance purchased and maintained by each person or entity agreeing to waive claims

pursuant to this Section 13.13.1 shall not prohibit this waiver of subrogation. This waiver of subrogation shall be effective as to a person or entity (1) even though that person or entity would otherwise have a duty of indemnification, contractual, or otherwise, (2) even though that person or entity did not pay the insurance premium directly or indirectly, or (3) whether or not the person or entity had an insurable interest in the damaged property.

§ 13.13.2 A loss insured under the Owner's property insurance shall be adjusted by the Owner as fiduciary and made payable to the Owner as fiduciary for the insureds, as their interests may appear, subject to requirements of any applicable mortgagee clause. The Owner shall pay the Architect and Vendor their just shares of insurance proceeds received by the Owner, and by appropriate agreements, written where legally required for validity, the Architect and Vendor shall make payments to their consultants and sub-vendors in similar manner.

ARTICLE 14 CLAIMS AND DISPUTES

§ 14.1 Binding Dispute Resolution

For any claim subject to, but not resolved by, mediation pursuant to Section 14.6, the method of binding dispute resolution shall be as follows:

(Check the appropriate box.)

☐ Arbitration pursuant to Section 14.7 of this Agreement

☐ Litigation in a court of competent jurisdiction

☐ Other *(Specify)*

☐

If the Owner and Vendor do not select a method of binding dispute resolution, or do not subsequently agree in writing to a binding dispute resolution method other than litigation, claims will be resolved in a court of competent jurisdiction.

§ 14.2 Claims, disputes, and other matters in question arising out of or relating to this Contract, including those alleging an error or omission by the Architect but excluding those arising under Section 12.2, shall be referred initially to the Architect for decision. Such matters, except those waived as provided for in Section 14.12, shall, after initial decision by the Architect or 30 days after submission of the matter to the Architect, be subject to mediation as a condition precedent to binding dispute resolution.

§ 14.3 Notice of Claims

Claims by either the Owner or Vendor shall be initiated by notice to the other party in accordance with Section 1.11.2.

§ 14.4 Time Limits on Claims

The Owner and Vendor shall commence all claims and causes of action against the other and arising out of or related to the Contract in accordance with the requirements of the final dispute resolution method selected in this Agreement, whether in contract, tort, breach of warranty, or otherwise, within the period specified by applicable law, but in any case not more than 10 years after the date of completion of the Work. The Owner and Vendor waive all claims and causes of action not commenced in accordance with this Section 14.4.

§ 14.5 If a claim, dispute, or other matter in question relates to or is the subject of a mechanic's lien, the party asserting such matter may proceed in accordance with applicable law to comply with the lien procedures, including notice or filing deadlines.

§ 14.6 The parties shall endeavor to resolve their disputes by mediation which, unless the parties mutually agree otherwise, shall be administered by the American Arbitration Association in accordance with their Construction Industry Mediation Procedures in effect on the date of this Agreement. A request for mediation shall be made in writing, delivered to the other party to this Agreement, and filed with the person or entity administering the mediation. The request may be made concurrently with the binding dispute resolution proceedings but, in such event, mediation shall proceed in advance of binding dispute resolution proceedings, which shall be stayed pending mediation for a period of 60 days from the date of filing, unless stayed for a longer period by agreement of the parties or court order. If an arbitration is stayed pursuant to this Section, the parties may nonetheless proceed to the selection of the arbitrator(s) and agree upon a schedule for later proceedings.

§ 14.7 If the parties have selected arbitration as the method for binding dispute resolution in this Agreement, any claim, subject to, but not resolved by, mediation shall be subject to arbitration which, unless the parties mutually agree otherwise, shall be administered by the American Arbitration Association, in accordance with the Construction Industry Arbitration Rules in effect on the date of this Agreement. Demand for arbitration shall be made in writing, delivered to the other party to the Contract, and filed with the person or entity administering the arbitration. The award rendered by the arbitrator or arbitrators shall be final, and judgment may be entered upon it in accordance with applicable law in any court having jurisdiction thereof.

§ 14.8 Subject to the rules of the American Arbitration Association or other applicable arbitration rules, either party, at its sole discretion, may consolidate an arbitration conducted under this Agreement with any other arbitration to which it is a party provided that (1) the arbitration agreement governing the other arbitration permits consolidation; (2) the arbitrations to be consolidated substantially involve common questions of law or fact; and (3) the arbitrations employ materially similar procedural rules and methods for selecting arbitrator(s).

§ 14.9 Subject to the rules of the American Arbitration Association or other applicable arbitration rules, any party to an arbitration may include by joinder persons or entities substantially involved in a common question of law or fact whose presence is required if complete relief is to be accorded in arbitration provided that the party sought to be joined consents in writing to such joinder. Consent to arbitration involving an additional person or entity shall not constitute consent to arbitration of a Claim not described in the written Consent.

§ 14.10 The foregoing agreement to arbitrate and other agreements to arbitrate with an additional person or entity duly consented to by parties to this Agreement shall be specifically enforceable under applicable law in any court having jurisdiction thereof.

§ 14.11 Continuing Contract Performance

Pending final resolution of a Claim, except as otherwise agreed in writing, the Vendor shall proceed diligently with performance of the Contract and the Owner shall continue to make payments in accordance with the Contract Documents.

§ 14.12 Waiver of Claims for Consequential Damages

The Vendor and Owner waive claims against each other for consequential damages arising out of or relating to this Contract. This mutual waiver includes

- .1 damages incurred by the Owner for rental expenses, for losses of use, income, profit, financing, business and reputation, and for loss of management or employee productivity or of the services of such persons; and
- .2 damages incurred by the Vendor for principal office expenses including the compensation of personnel stationed there, for losses of financing, business, and reputation, and for loss of profit except anticipated profit arising directly from the Work.

This mutual waiver is applicable, without limitation, to all consequential damages. Nothing contained in this Section 14.12 shall be deemed to preclude an assessment of liquidated damages, when applicable, in accordance with the requirements of the Contract Documents.

ARTICLE 15 ENUMERATION OF CONTRACT DOCUMENTS

§ 15.1 The Contract Documents are defined in Article 1 and, except for Modifications issued after execution of this Agreement, are enumerated in the sections below.

§ 15.2 The Agreement is this executed AIA Document A151™–2019, Standard Form of Agreement Between Owner and Vendor for Furniture, Furnishings, and Equipment.

§ 15.3 Building Information Modeling Exhibit, if completed:

« »

§ 15.4 The Specifications:

(Either list the Specifications here or refer to an exhibit attached to this Agreement.)

« »

Section	Title	Date	Pages

§ 15.5 The Drawings:

(Either list the Drawings here or refer to an exhibit attached to this Agreement.)

« »

Number	Title	Date

§ 15.6 The Addenda, if any:

Number	Date	Pages

Portions of Addenda relating to quotations or proposal requirements are not part of the Contract Documents unless the quotation or proposal requirements are enumerated in this Article 15.

§ 15.7 Additional documents, if any, forming part of the Contract Documents:

.1 Other Exhibits:

(Check all boxes that apply.)

[« »] The Sustainability Plan:

Title	Date	Pages

[« »] Supplementary and other Conditions of the Contract:

Document	Title	Date	Pages

.2 Other documents, if any, listed below:

(List here any additional documents that are intended to form part of the Contract Documents.)

« »

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

OWNER *(Signature)*

« »« »

(Printed name and title)

VENDOR *(Signature)*

« »« »

(Printed name and title)

GENERAL CONDITIONS

The Work of this Contract shall be subject to the American Institute of Architects Document A151, "Standard Form of Agreement between Owner and Vendor for Furniture, Furnishings, and Equipment (FF&E)", herein referred to as the Agreement.

SUPPLEMENTARY CONDITIONS

The supplementary Conditions contain changes and additions to the Agreement. Where any part of the Agreement is modified or voided by the Supplementary Conditions, the remaining unaltered provisions shall remain in effect.

ARTICLE 1 Add the following:

1.2.1 When applied to materials and equipment required for the Work, the following words shall mean the following:

- .1 The word "provide" shall mean to furnish, pay for, deliver, install, adjust, clean, and otherwise make materials and equipment fit and ready for their intended use.
- .2 The word "furnish" shall mean to secure, pay for, deliver to site, unload, and uncrate materials and equipment.
- .3 The word "install" shall mean to place in position, incorporate in the work, adjust, clean, make fit and ready for use and perform all services except those included under the term "furnish".
- .4 The phrase "furnish and install" shall be equivalent to the word "provide". Each shall be interpreted to mean "the Vendor shall furnish all labor, material and equipment and install....".
- .5 "As required" shall mean as required to produce a fully completed project or result to the satisfaction of the Architect.

1.2.2 Where discrepancies or conflicts occur:

- .1 Amendments and Addenda shall take precedence over the Specifications.
- .2 The Specifications shall take precedence over the Drawings.
- .3 Stated dimensions shall take precedence over scaled dimensions.
- .4 Large-scale detail drawings shall take precedence over small-scale drawings.
- .5 Schedules shall take precedence over other data on the drawings.

1.2.3 In case of a difference between Drawings or Specifications or within either document itself in describing the Work, the better quality, greater quantity, or costlier work will be assumed to be and shall be included in the Contract price. The Vendor shall not proceed with such work until the Architect has been contacted for clarification and proper direction.

1.2.4 Instructions or specifications of a particular manufacturer as referred to herein shall be binding as a part of this Specification. Obtain such written instructions and maintain on the job with the Specification.

1.2.5 All work shown or referred to in the Contract Documents shall be included in the Contract excepting those items which are specifically noted as being "provided under another contract" or "provided by the Owner", or "not in contract (NIC)".

1.3.1 Parties to the Contract shall not take advantage of obvious error or apparent discrepancy in Contract Documents. Notice of discovered error or discrepancy shall immediately be given in

writing to the Architect to make such corrections and interpretations as he may deem necessary for completion of the work in a satisfactory and acceptable manner.

- 1.4.1** The Vendor's proposal for changes in the Work shall be itemized completely and in detail and shall include material costs and quantities, labor wages, time, insurance, pensions, and equipment rental other than small tools, and the number of additional calendar days, if any, which are required to complete the Work.

Where unit prices have been established, the proposal shall state the quantity involved and the applicable unit price.

1.4.2 Allowance for Overhead and Profit

- .1** The allowance for overhead and profit is compensation for administration, superintendence, materials for temporary structures, additional premiums on bonds and the use of small tools.
- .2** For additions, deletions or other changes in the Work ordered under this Section, the Vendor may apply an allowance of up to fifteen percent (15%) for profit and overhead to the net cost of the work actually performed by him.

ARTICLE 2 Make the following changes:

- 2.2.2 Add** to the beginning "At least fifteen (15) days prior to".

Add the following:

- 2.2.2.1** During progress of the Work, the Owner will pay the Vendor ninety-five percent (95%) of the total amount of each monthly payment due. The remaining five percent (5%) will be retained by the Owner until the Project is substantially completed. There will be no further reduction considered until final acceptance of the Project in accordance with the Contract Documents.

- 2.2.2.2** A prerequisite to final payment shall be that the Vendor furnish proof that he has completed all specification requirements covering the following item as applicable:

Warranties.

ARTICLE 3 Add the following:

- 3.1.3.1** No extension of time will be allowed for adverse weather conditions unless the number of days of inclement weather is substantially greater or conditions substantially more severe than the average for the calendar period as recorded by a recognized weather observation agency.

ARTICLE 5 Make the following changes:

- 5.7 Add the following:** No amount shall be included for State Sales Tax or for Federal Excise Tax on materials or supplies purchased for this project. The Owner will supply tax exempt number.

ARTICLE 9 Add the following:

- 9.5** Project Warranty: Unless otherwise specified, Vendor shall warrant (guaranty) all work against defects resulting from the use of material, workmanship or equipment which is inferior, defective, or

not in accordance with the terms of the Contract. This warranty, unless stated otherwise in a given section of the Specifications, shall be for a period of one (1) year from the date of issuance of the Certificate of Substantial Completion for the Project.

9.5.1 Warranty Obligations

- .1 Vendor shall restore or remove-and-replace warranted work to its originally specified condition, at such time during warranty as it does not comply with or fulfill terms of warranty.
- .2 Vendor shall restore or remove-and-replace other work which has been damaged by failure of warranted work, or which must be removed and replaced to gain access to warranted work.
- .3 Cost of restoration or removal-and-replacement is Vendor's obligation, without regard to whether Owner has already benefited from use of failing work.
- .4 Except as otherwise indicated or required by governing regulations, warranties do not cover consequential damage to property other than the Work of the Contract.
- .5 Upon restoration or removal-and-replacement of warranted work which has failed, Vendor shall reinstate the warranty by issuing newly executed form, for at least the remaining period of time of the original warranty, but for not less than half of the original warranty period.
- .6 Warranties and warranty periods shall not diminish implied warranties, and shall not deprive Owner of actions, rights, and remedies otherwise available if the Vendor fails to fulfill the requirements of the Contract Documents.

9.5.2 Vendor shall furnish fully executed warranties to Owner in accordance with the General Conditions and Section 017700.

ARTICLE 10 Add the following:

- 10.8** The provisions of Article 15 notwithstanding, the Vendor expressly agrees to joinder in arbitration proceedings between Owner/Architect upon specific written request of the Owner. This agreement shall be valid with the Architect's acceptance of an equal provision in their respective contracts.

ARTICLE 11 Add the following:

- 11.4.1 In a dispute between the Owner and the Vendor concerning rubbish and orderliness on the site, the Owner may have the rubbish removed and charge the cost to the Vendor. Upon written notification from the Architect that the project requires cleaning, the Vendor shall within 24 hours remove all rubbish and hazards from the project and shall arrange his material and equipment in an orderly manner on the site. If this cleaning is not completed within 24 hours, the Owner may engage labor to clean up the projects to his satisfaction and deduct the costs from any monies due the Vendor.

ARTICLE 13 Make the following changes:

- 13.1 **Revise** "authorized to do business in the jurisdiction in which the Project is located" to read "licensed to do business in Connecticut".
- 13.2 **Revise** to read as follows:

"Insurance shall be provided as required in the attached Exhibit A. Furthermore, the Certificate must name as Additional Insureds: Area Cooperative Educational Services (ACES) and Silver/Petrucelli + Associates, Inc. The coverage must be on a primary, non-contributory basis."

13.3, 13.4, 13.5, 13.6, and 13.7, **delete** in their entirety.

Add the following:

13.8.1 The Vendor, before commencing work, shall supply Owner with Certificates of Insurance evidencing compliance with the insurance requirements. Each certificate shall state that the insurance evidenced by such certificate will not be canceled or reduced without thirty (30) days prior written notice to the Owner.

13.8.2 The Vendor shall promptly furnish to the Owner copies of any endorsements subsequently issued amending coverage or limits.

13.13 **Revise** to read: Waiver of subrogation is required in favor of Area Cooperative Educational Services (ACES) all policies.

ARTICLE 14 Make the following changes:

14.6 **Revise** to read as follows: In addition to and prior to arbitration, the parties shall endeavor to settle disputes by mediation in accordance with the Construction Industry Mediation Procedures of the American Arbitration Association currently in effect unless the parties mutually agree otherwise. Demand for mediation shall be filed in writing with the other party to this Agreement and with the American Arbitration Association. A demand for mediation shall be made within a reasonable time after the claim, dispute, or other matter in question has arisen. In no event shall the demand for mediation be made after the date when institution of legal or equitable proceedings based on such claim, dispute, or other matter in question would be barred by the applicable statute of limitations. The provisions of Article 14 notwithstanding, the Vendor expressly agrees to joinder in mediation proceedings between Owner/Architect upon specific written request of the Owner. This agreement shall be valid with the Architect's acceptance of an equal provision in their respective contracts.

END OF SECTION

Exhibit A

Contractors Insurance Requirements

All Contractors are required to provide proof of the required insurance coverage before entering the premises or commencing any work at any ACES facility. Contractors must obtain, at their own expense, all the insurance required here from an insurance company A.M. Best rated as "A-VII" or better, and acceptable evidence of such insurance must be properly furnished to, and approved by, ACES.

All Contractors are subject to the same requirements. It is the responsibility of the primary contractor to obtain acceptable evidence of insurance from subcontractors.

ACES also requires that they be named as an additional insured on the commercial general liability policy(ies). The commercial general liability policy must be specifically endorsed with ISO Endorsement CG 20 10 (or equivalent) *or* ISO Endorsement CG 20 26 (or equivalent), *and* ISO Endorsement CG 20 37 (or equivalent)." These form numbers must be specifically referenced on the certificate of insurance, and copies of these endorsements naming ACES as additional insured must be furnished with the required certificate of insurance prior to commencement of the work. If the insurance company uses a different form to provide ACES with an additional insured status on your policies, copies must be provided in advance with the insurance certificate for review and approval by ACES.

The amounts of insurance available to ACES as additional insured must be equal to the full policy limits carried by the Contractor, including primary and excess (umbrella) liability policies or the amounts specified below, whichever is greater. Coverage provided under excess or umbrella policies must be at least as broad as that found in required underlying policies. All coverage must be primary and noncontributory as to ACES.

The proper name for the entity to be named as additional insured is: **"Area Cooperative Educational Services, and/or related or affiliated entities."**

Evidence of compliance with these requirements is with the ACCORD form 25, "Certificate of Liability Insurance", plus copies of any required additional insured endorsements. Certificates should be sent to:

William Rice, Assistant Executive Director of Operations
Area Cooperative Educational Services
370 James Street, Suite 303
New Haven, CT 064513

Current insurance certificates must be furnished to ACES at all times. Replacement certificates must be furnished ten (10) days *prior to the expiration or replacement* of referenced policies.

ACES reserves the right to make commercially reasonable changes in these requirements during the term of any work or project.

Types and Minimum Coverage Amounts	
Commercial General Liability (“CGL”)	<p>\$1,000,000 per occurrence \$2,000,000 aggregate bodily injury/property damage \$1,000,000 Personal and Advertising Injury \$2,000,000 Products-Completed operations aggregate The CGL policy must include coverage for:</p> <ul style="list-style-type: none"> • liability from premises and operations. • liability from products or completed operations. • liability from actions of independent contractors. • liability assumed by contract.
Conditions	<p>All coverage provided to ACES under this section must be primary and non-contributory with any other insurance available to ACES. ACES must be specifically named as “additional insured” on the CGL policy with ISO form CG 20 10 or CG 20 26 or equivalent acceptable to ACES. ACES must <i>also</i> be named as “additional insured” for Products/Completed Operations on the CGL policy with form CG 20 37 or equivalent acceptable to ACES.</p> <p>Any Aggregate limit must apply per job or project.</p> <p>Products/completed operations must be carried for two (2) years after completion of job/acceptance by ACES.</p>
Automobile Liability	<p>\$1,000,000 each accident \$2,000,000 aggregate for bodily injury/property damage, including hired owned & non-owned vehicles.</p>
Umbrella Liability	<p>\$3,000,000 Limits must be excess over underlying limits described above. All coverage provided to ACES under this section must be at least as broad as that found in the underlying policies, and must be primary and non-contributory with any other insurance available to ACES.</p>
Workers' Compensation	<p>Liability meeting statutory limits by the State and Federal laws with minimum limits of: \$1,000,000 each accident for bodily injury by accident \$1,000,000 each employee for bodily injury by disease \$1,000,000 policy limit for bodily injury by disease</p>
Employers Liability	<p>\$1,000,000 each accident</p>
Professional Liability	<p>\$1,000,000</p>
Contractor’s Pollution Liability	<p>\$1,000,000 per occurrence/\$1,000,000 aggregate</p>

Application and Certificate for Payment

TO OWNER:

PROJECT:

FROM CONTRACTOR:

VIA ARCHITECT:

APPLICATION NO: 001

PERIOD TO:
CONTRACT FOR:
CONTRACT DATE:
PROJECT NOS:

Distribution to:
OWNER:
ARCHITECT:
CONTRACTOR:
FIELD:
OTHER:

CONTRACTOR'S APPLICATION FOR PAYMENT

Application is made for payment, as shown below, in connection with the Contract.
AIA Document G703®, Continuation Sheet, is attached.

1. ORIGINAL CONTRACT SUM

\$0.00

2. NET CHANGE BY CHANGE ORDERS

\$0.00

3. CONTRACT SUM TO DATE (Line 1 ± 2)

\$0.00

4. TOTAL COMPLETED & STORED TO DATE (Column G on G703)

\$0.00

5. RETAINAGE:

a. 0 % of Completed Work
(Column D + E on G703:)

\$0.00

=

\$0.00

b. 0 % of Stored Material
(Column F on G703:)

\$0.00

=

\$0.00

Total Retainage (Lines 5a + 5b or Total in Column I of G703)

\$0.00

6. TOTAL EARNED LESS RETAINAGE

(Line 4 Less Line 5 Total)

\$0.00

7. LESS PREVIOUS CERTIFICATES FOR PAYMENT

(Line 6 from prior Certificate)

\$0.00

8. CURRENT PAYMENT DUE

(Line 6 from prior Certificate)

\$0.00

9. BALANCE TO FINISH, INCLUDING RETAINAGE

(Line 3 less Line 6)

\$0.00

ARCHITECT'S CERTIFICATE FOR PAYMENT

In accordance with the Contract Documents, based on on-site observations and the data comprising this application, the Architect certifies to the Owner that to the best of the Architect's knowledge, information and belief the Work has progressed as indicated, the quality of the Work is in accordance with the Contract Documents, and the Contractor is entitled to payment of the

AMOUNT CERTIFIED

\$0.00

(Attach explanation if amount certified differs from the amount applied. Initial all figures on this Application and on the Continuation Sheet that are changed to conform with the amount certified.)

CHANGE ORDER SUMMARY	ADDITIONS	DEDUCTIONS
Total changes approved in previous months by Owner	\$0.00	\$0.00
Total approved this Month	\$0.00	\$0.00
TOTALS	\$0.00	\$0.00
NET CHANGES by Change Order		\$0.00

ARCHITECT:

By:

Date:

This Certificate is not negotiable. The AMOUNT CERTIFIED is payable only to the Contractor named herein. Issuance, payment and acceptance of payment are without prejudice to any rights of the Owner or Contractor under this Contract.

CONNECTICUT DEPARTMENT OF LABOR
WAGE AND WORKPLACE STANDARDS DIVISION

CONTRACTORS WAGE CERTIFICATION FORM
Construction Manager at Risk/General Contractor/Prime Contractor

I, _____ of _____
Officer, Owner, Authorized Rep. Company Name

do hereby certify that the _____
Company Name

Street

City

and all of its subcontractors will pay all workers on the

Project Name and Number

Street and City

the wages as listed in the schedule of prevailing rates required for such project (a copy of which is attached hereto).

Signed

Subscribed and sworn to before me this _____ day of _____, _____.

Notary Public

Return to:

Connecticut Department of Labor
Wage & Workplace Standards Division
200 Folly Brook Blvd.
Wethersfield, CT 06109

Rate Schedule Issued (Date): _____

Minimum Rates and Classifications
for Building Construction

ID#: 25-4951

Connecticut Department of Labor
Wage and Workplace Standards Division

By virtue of the authority vested in the Labor Commissioner under provisions of Section 31-53 of the General Statutes of Connecticut, as amended, the following are declared to be the prevailing rates and welfare payments and will apply only where the contract is advertised for bid within 20 days of the date on which the rates are established. Any contractor or subcontractor not obligated by agreement to pay to the welfare and pension fund shall pay this amount to each employee as part of his/her hourly wages.

Project Number: Project Town: Hamden
State#: FAP#:
Project: ACES Wintergreen Interdistrict Magnet School Alterations

CLASSIFICATION	Hourly Rate	Benefits
1b) Asbestos/Toxic Waste Removal Laborers: Asbestos removal and encapsulation (except its removal from mechanical systems which are not to be scrapped), toxic waste removers, blasters.**See Laborers Group 7**		
1c) Asbestos Worker/Heat and Frost Insulator	47.06	33.30
2) Boilermaker	48.21	30.01
3a) Bricklayer, Cement Mason, Concrete Finisher (including caulking), Stone Masons	42.61	34.89 + a
3b) Tile Setter	40.0	32.75
3c) Tile and Stone Finishers	33.0	27.43
3d) Marble & Terrazzo Finishers	34.2	26.23
3e) Plasterer	44.52	29.63

3f) Terrazzo Mechanics & Marble Setters	40.6	34.93
-----LABORERS-----		
4) Group 1: General laborers, carpenter tenders, concrete specialists, wrecking laborers and fire watchers.	35.7	28.85
4) Group 1a: Acetylene Burners (Hours worked with a torch)	36.7	28.85
4a) Group 2: Mortar mixers, plaster tender, power buggy operators, powdermen, fireproofers/mixer/nozzleman (Person running mixer and spraying fireproof only).	35.95	28.85
4b) Group 3: Jackhammer operators/pavement breaker, mason tender (brick), mason tender (cement/concrete), forklift operators and forklift operators (masonry).	36.2	28.85
4c) **Group 4: Pipelayers (Installation of water, storm drainage or sewage lines outside of the building line with P6, P7 license) (the pipelayer rate shall apply only to one or two employees of the total crew who primary task is to actually perform the mating of pipe sections) P6 and P7 rate is \$26.80.	36.7	28.85
4d) Group 5: Air track operator, sand blaster and hydraulic drills.	36.45	28.85
4e) Group 6: Blasters, nuclear and toxic waste removal.	38.7	28.85
4f) Group 7: Asbestos/lead removal and encapsulation (except it's removal from mechanical systems which are not to be scrapped).	38.7	28.85
4g) Group 8: Bottom men on open air caisson, cylindrical work and boring crew.	36.2	28.85

4h) Group 9: Top men on open air caisson, cylindrical work and boring crew.	35.7	28.85
4i) Group 10: Traffic Control Signalman	21.42	28.85
4j) Group 11: Toxic Waste Removers A or B With PPE	38.7	28.85
5) Carpenter, Acoustical Ceiling Installation, Soft Floor/Carpet Laying, Metal Stud Installation, Form Work and Scaffold Building, Drywall Hanging, Modular-Furniture Systems Installers, Lathers, Piledrivers, Resilient Floor Layers.	42.03	29.19
5a) Millwrights	43.25	29.13
6) Electrical Worker (including low voltage wiring) (Trade License required: E1,2 L-5,6 C-5,6 T-1,2 L-1,2 V-1,2,7,8,9)	44.6	34.71+3% of gross wage
7a) Elevator Mechanic (Trade License required: R-1,2,5,6)	66.72	40.035+a+b
-----LINE CONSTRUCTION-----		
Groundman	26.5	6.5% + 9.00
Linemen/Cable Splicer	48.19	6.5% + 22.00
8) Glazier (Trade License required: FG-1,2)	41.63	25.80+ a
9) Ironworker, Ornamental, Reinforcing, Structural, and Precast Concrete Erection	45.25	41.27 + a

-----OPERATORS-----

As of: May 13, 2025

Group 1: Crane Handling or Erecting Structural Steel or Stone; Hoisting Engineer (2 drums or over). (Trade License Required)	58.19	29.80 + a
Group 1a: Front End Loader (7 cubic yards or over); Work Boat 26 ft. and Over	53.33	29.80 + a
Group 2: Cranes (100 ton rate capacity and over); Bauer Drill/Caisson. (Trade License Required)	57.78	29.80 + a
Group 2a: Cranes (under 100 ton rated capacity).	56.79	29.80 + a
Group 2b: Excavator over 2 cubic yards; Pile Driver (\$3.00 premium when operator controls hammer)	52.92	29.80 + a
Group 3: Excavator; Gradall; Master Mechanic; Hoisting Engineer (all types of equipment where a drum and cable are used to hoist or drag material regardless of motive power of operation), Rubber Tire Excavator (Drott-1085 or similar); Grader Operator; Bulldozer Finegrade. (slopes, shaping, laser or GPS, etc.). (Trade License Required)	51.92	29.80 + a
Group 4: Trenching Machines; Lighter Derrick; CMI Machine or Similar; Koehring Loader (Skooper); Goldhofer.	51.42	29.80 + a
Group 5: Specialty Railroad Equipment; Asphalt Spreader, Asphalt Reclaiming Machine; Line Grinder; Concrete Pumps; Drills with Self Contained Power Units; Boring Machine; Post Hole Digger; Auger; Pounder; Well Digger; Milling Machine (over 24 mandrel).	50.63	29.80 + a
Group 5 continued: Side Boom; Combination Hoe and Loader; Directional Driller.	50.63	29.80 + a
Group 6: Front End Loader (3 up to 7 cubic yards); Bulldozer (rough grade dozer).	50.22	29.80 + a

Group 7: Asphalt Roller; Concrete Saws and Cutters (ride on types); Vermeer Concrete Cutter; Stump Grinder; Scraper; Snooper; Skidder; Milling Machine (24" and under mandrel).	49.77	29.80 + a
Group 8: Mechanic; Grease Truck Operator; Hydroblaster; Barrier Mover; Power Stone Spreader; Welding; Work Boat Under 26 ft.; Transfer Machine; Rigger Foreman.	49.25	29.80 + a
Group 9: Front End Loader (under 3 cubic yards); Skid Steer Loader regardless of attachments; (Bobcat or Similar); Forklift, Power Chipper; Landscape Equipment (including Hydroseeder); Vacuum Excavation Truck and Hydrovac Excavation Truck (27 HG pressure or greater).	48.67	29.80 + a
Group 10: Vibratory hammer; ice machine; diesel and air, hammer, etc.	45.96	29.80 + a
Group 11: Conveyor, earth roller, power pavement breaker (whiphammer), robot demolition equipment.	45.96	29.80 + a
Group 12: Wellpoint Operator.	45.87	29.80 + a
Group 13: Compressor Battery Operator.	45.12	29.80 + a
Group 14: Elevator Operator; Tow Motor Operator (solid tire no rough terrain).	43.6	29.80 + a
Group 15: Generator Operator; Compressor Operator; Pump Operator; Welding Machine Operator; Heater Operator.	43.06	29.80 + a
Group 16: Maintenance Engineer.	42.2	29.80 + a
Group 17: Portable Asphalt Plant Operator; Portable Crusher Plant Operator; Portable Concrete Plant Operator; Portable Grout Plant Operator; Portable Water Filtration Plant Operator.	47.91	29.80 + a

Group 18: Power Safety Boat; Vacuum Truck; Zim Mixer; Sweeper; (Minimum for any job requiring a CDL license); Rigger; Signalman.	44.7	29.80 + a
Surveyor: Chief of Party	48.16	29.80 + a
Surveyor: Assistant Chief of Party	44.41	29.80 + a
Surveyor: Instrument Man	42.73	29.80 + a
Surveyor: Rodman or Chainman	36.78	29.80 + a
-----PAINTERS (Including Drywall Finishing)-----		
10a) Brush and Roller	38.07	25.80
10b) Taping Only/Drywall Finishing	38.82	25.80
10c) Paperhanger and Red Label	38.57	25.80
10e) Blast and Spray	41.07	25.80
11) Plumber (excluding HVAC pipe installation) (Trade License required: P- 1,2,6,7,8,9 J-1,2,3,4 SP-1,2)	49.58	35.25
12) Well Digger, Pile Testing Machine	37.26	24.05 + a
Roofer: Cole Tar Pitch	45.0	24.85 + a
Roofer: Slate, Tile, Composition, Shingles, Singly Ply and Damp/Waterproofing	43.5	24.85 + a

As of: May 13, 2025

15) Sheetmetal Worker (Trade License required for HVAC and Ductwork: SM-1,SM-2,SM-3,SM-4,SM-5,SM-6)	43.89	42.90
16) Pipefitter (Including HVAC work) (Trade License required: S-1,2,3,4,5,6,7,8 B-1,2,3,4 D-1,2,3,4, G-1, G-2, G-8 & G-9)	49.58	35.25
-----TRUCK DRIVERS-----		
17a) 2 Axle, Helpers	33.16	32.36 + a
17b) 3 Axle, 2 Axle Ready Mix	33.27	32.36 + a
17c) 3 Axle Ready Mix	33.33	32.36 + a
17d) 4 Axle	33.39	32.36 + a
17e) 4 Axle Ready Mix	33.44	32.36 + a
17f) Heavy Duty Trailer (40 Tons and Over)	35.66	32.36 + a
17g) Specialized Earth Moving Equipment (Other Than Conventional Type on-the-Road Trucks and Semi-Trailers, Including Euclids)	33.44	32.36 + a
17h) Heavy Duty Trailer up to 40 tons	34.39	32.36 + a
17i) Snorkle Truck	33.54	32.36 + a
18) Sprinkler Fitter (Trade License required: F-1,2,3,4)	49.98	32.85 + a

As of: May 13, 2025

Welders: Rate for craft to which welding is incidental.

Surveyors: Hazardous material removal: \$3.00 per hour premium.

*Note: Hazardous waste removal work receives additional \$1.25 per hour for truck drivers.

**Note: Hazardous waste premium \$3.00 per hour over classified rate

Crane with 150 ft. boom (including jib) - \$1.50 extra

Crane with 200 ft. boom (including jib) - \$2.50 extra

Crane with 250 ft. boom (including jib) - \$5.00 extra

Crane with 300 ft. boom (including jib) - \$7.00 extra

Crane with 400 ft. boom (including jib) - \$10.00 extra

All classifications that indicate a percentage of the fringe benefits must be calculated at the percentage rate times the "base hourly rate".

Apprentices duly registered under the Commissioner of Labor's regulations on "Work Training Standards for Apprenticeship and Training Programs" Section 31-51-d-1 to 12, are allowed to be paid the appropriate percentage of the prevailing journeymen hourly base and the full fringe benefit rate, providing the work site ratio shall not be less than one full-time journeyman instructing and supervising the work of each apprentice in a specific trade.

The Prevailing wage rates applicable to this project are subject to annual adjustments each July 1st for the duration of the project.

Each contractor shall pay the annual adjusted prevailing wage rate that is in effect each July 1st, as posted by the Department of Labor.

It is the contractor's responsibility to obtain the annual adjusted prevailing wage rate increases directly from the Department of Labor's website.

The annual adjustments will be posted on the Department of Labor's Web page:

www.ct.gov/dol. For those without internet access, please contact the division listed below.

The Department of Labor will continue to issue the initial prevailing wage rate schedule to the Contracting Agency for the project.

All subsequent annual adjustments will be posted on our Web Site for contractor access.

Contracting Agencies are under no obligation pursuant to State labor law to pay any increase due to the annual adjustment provision.

Effective October 1, 2005 - Public Act 05-50: any person performing the work of any mechanic, laborer, or worker shall be paid prevailing wage

All Person who perform work ON SITE must be paid prevailing wage for the appropriate mechanic, laborer, or worker classification.

All certified payrolls must list the hours worked and wages paid to All Persons who perform work ON SITE regardless of their ownership i.e.: (Owners, Corporate Officers, LLC Members, Independent Contractors, et. al)

Reporting and payment of wages is required regardless of any contractual relationship alleged to exist between the contractor and such person.

~~Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clause (29 CFR 5.5 (a) (1) (ii)).

Please direct any questions which you may have pertaining to classification of work and payment of prevailing wages to the Wage and Workplace Standards Division, telephone (860)263-6790.

**Connecticut Department of Labor
Wage and Workplace Standards Division
FOOTNOTES**

- ⇒ Please Note: If the “Benefits” listed on the schedule for the following occupations includes a letter(s) (+ a or + a+b for instance), refer to the information below.

Benefits to be paid at the appropriate prevailing wage rate for the listed occupation.

If the “Benefits” section for the occupation lists only a dollar amount, disregard the information below.

Bricklayers, Cement Masons, Cement Finishers, Concrete Finishers, Stone Masons
(Building Construction) and
(Residential- Hartford, Middlesex, New Haven, New London and Tolland Counties)

- a. Paid Holiday: Employees shall receive 4 hours for Christmas Eve holiday provided the employee works the regularly scheduled day before and after the holiday. Employers may schedule work on Christmas Eve and employees shall receive pay for actual hours worked in addition to holiday pay.

Elevator Constructors: Mechanics

- a. Paid Holidays: New Year’s Day, Memorial Day, Independence Day, Labor Day, Veterans’ Day, Thanksgiving Day, Christmas Day, plus the Friday after Thanksgiving.
- b. Vacation: Employer contributes 8% of basic hourly rate for 5 years or more of service or 6% of basic hourly rate for 6 months to 5 years of service as vacation pay credit.

Glaziers

- a. Paid Holidays: Labor Day and Christmas Day.

Power Equipment Operators
(Heavy and Highway Construction & Building Construction)

- a. Paid Holidays: New Year’s Day, Good Friday, Memorial day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day, provided the employee works 3 days during the week in which the holiday falls, if scheduled, and if scheduled, the working day before and the working day after the holiday. Holidays falling on Saturday may be observed on Saturday, or if the employer so elects, on the preceding Friday.

Ironworkers

- a. Paid Holiday: Labor Day provided employee has been on the payroll for the 5 consecutive work days prior to Labor Day.

Laborers (Tunnel Construction)

- a. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day. No employee shall be eligible for holiday pay when he fails, without cause, to work the regular work day preceding the holiday or the regular work day following the holiday.

Roofers

- a. Paid Holidays: July 4th, Labor Day, and Christmas Day provided the employee is employed 15 days prior to the holiday.

Sprinkler Fitters

- a. Paid Holidays: Memorial Day, July 4th, Labor Day, Thanksgiving Day and Christmas Day, provided the employee has been in the employment of a contractor 20 working days prior to any such paid holiday.

Truck Drivers

(Heavy and Highway Construction & Building Construction)

- a. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Christmas day, and Good Friday, provided the employee has at least 31 calendar days of service and works the last scheduled day before and the first scheduled day after the holiday, unless excused.

STATUTE 31-55a

- SPECIAL NOTICE -

To All State and Political Subdivisions, Their Agents, and Contractors Connecticut General Statute 31-55a - Annual adjustments to wage rates by contractors doing state work.

Each contractor that is awarded a contract on or after October 1, 2002, for (1) the construction of a state highway or bridge that falls under the provisions of section 31-54 of the general statutes, or (2) the construction, remodeling, refinishing, refurbishing, rehabilitation, alteration or repair of any public works project that falls under the provisions of section 31-53 of the general statutes shall contact the Labor Commissioner on or before July first of each year, for the duration of such contract, to ascertain the prevailing rate of wages on an hourly basis and the amount of payment or contributions paid or payable on behalf of each mechanic, laborer or worker employed upon the work contracted to be done, and shall make any necessary adjustments to such prevailing rate of wages and such payment or contributions paid or payable on behalf of each such employee, effective each July first.

- The prevailing wage rates applicable to any contract or subcontract awarded on or after October 1, 2002 are subject to annual adjustments each July 1st for the duration of any project which was originally advertised for bids on or after October 1, 2002.
- Each contractor affected by the above requirement shall pay the annual adjusted prevailing wage rate that is in effect each July 1st, as posted by the Department of Labor.
- It is the **contractor's** responsibility to obtain the annual adjusted prevailing wage rate increases directly from the Department of Labor's Web Site. The annual adjustments will be posted on the Department of Labor Web page: www.ctdol.state.ct.us. For those without internet access, please contact the division listed below.
- The Department of Labor will continue to issue the initial prevailing wage rate schedule to the Contracting Agency for the project. All subsequent annual adjustments will be posted on our Web Site for contractor access.

Any questions should be directed to the Contract Compliance Unit, Wage and Workplace Standards Division, Connecticut Department of Labor, 200 Folly Brook Blvd., Wethersfield, CT 06109 at (860)263-6790.

Information Bulletin

Occupational Classifications

The Connecticut Department of Labor has the responsibility to properly determine "job classification" on prevailing wage projects covered under C.G.S. Section 31-53(d).

Note: This information is intended to provide a sample of some occupational classifications for guidance purposes only. It is not an all-inclusive list of each occupation's duties. This list is being provided only to highlight some areas where a contractor may be unclear regarding the proper classification. If unsure, the employer should seek guidelines for CTDOL.

Below are additional clarifications of specific job duties performed for certain classifications:

- **ASBESTOS WORKERS**

Applies all insulating materials, protective coverings, coatings and finishes to all types of mechanical systems.

- **ASBESTOS INSULATOR**

Handle, install apply, fabricate, distribute, prepare, alter, repair, dismantle, heat and frost insulation, including penetration and fire stopping work on all penetration fire stop systems.

- **BOILERMAKERS**

Erects hydro plants, incomplete vessels, steel stacks, storage tanks for water, fuel, etc. Builds incomplete boilers, repairs heat exchanges and steam generators.

- **BRICKLAYERS, CEMENT MASONS, CEMENT FINISHERS, MARBLE MASONS, PLASTERERS, STONE MASONS, PLASTERERS. STONE MASONS, TERRAZZO WORKERS, TILE SETTERS**

Lays building materials such as brick, structural tile and concrete cinder, glass, gypsum, terra cotta block. Cuts, tools and sets marble, sets stone, finishes concrete, applies decorative steel, aluminum and plastic tile, applies cements, sand, pigment and marble chips to floors, stairways, etc.

- **CARPENTERS, MILLWRIGHTS. PILEDRIVMEN. LATHERS. RESILEINT FLOOR LAYERS, DOCK BUILDERS, DIKERS, DIVER TENDERS**

Constructs, erects, installs and repairs structures and fixtures of wood, plywood and wallboard. Installs, assembles, dismantles, moves industrial machinery. Drives piling into ground to provide foundations for structures such as buildings and bridges, retaining walls for earth embankments, such as cofferdams. Fastens wooden, metal or rockboard lath to walls, ceilings and partitions of buildings, acoustical tile layer, concrete form builder. Applies firestopping materials on fire resistive joint systems only. Installation of curtain/window walls only where attached to wood or metal studs. Installation of insulated material of all types whether blown, nailed or attached in other ways to walls, ceilings and floors of buildings. Assembly and installation of modular furniture/furniture systems. Free-standing furniture is not covered. This includes free standing: student chairs, study top desks, book box desks, computer furniture, dictionary stand, atlas stand, wood shelving, two-position information access station, file cabinets, storage cabinets, tables, etc.

- **LABORER, CLEANING**

- The clean up of any construction debris and the general (heavy/light) cleaning, including sweeping, wash down, mopping, wiping of the construction facility and its furniture, washing, polishing, and dusting.

- **DELIVERY PERSONNEL**

- If delivery of supplies/building materials is to one common point and stockpiled there, prevailing wages are not required. If the delivery personnel are involved in the distribution of the material to multiple locations within the construction site then they would have to be paid prevailing wages for the type of work performed: laborer, equipment operator, electrician, ironworker, plumber, etc.

- An example of this would be where delivery of drywall is made to a building and the delivery personnel distribute the drywall from one "stockpile" location to further sub-locations on each floor. Distribution of material around a construction site is the job of a laborer or tradesman, and not a delivery personnel.

- **ELECTRICIANS**

Install, erect, maintenance, alteration or repair of any wire, cable, conduit, etc., which generates, transforms, transmits or uses electrical energy for light, heat, power or other purposes, including the Installation or maintenance of telecommunication, LAN wiring or computer equipment, and low voltage wiring. ****License required per Connecticut General Statutes: E-1,2 L-5,6 C-5,6 T-1,2 L-1,2 V-1,2,7,8,9.***

- **ELEVATOR CONSTRUCTORS**

Install, erect, maintenance and repair of all types of elevators, escalators, dumb waiters and moving walks. **License required by Connecticut General Statutes: R-1,2,5,6.*

- **FORK LIFT OPERATOR**

Laborers Group 4) Mason Tenders - operates forklift solely to assist a mason to a maximum height of nine (9) feet only.

Power Equipment Operator Group 9 - operates forklift to assist any trade, and to assist a mason to a height over nine (9) feet.

- **GLAZIERS**

Glazing wood and metal sash, doors, partitions, and 2 story aluminum storefronts. Installs glass windows, skylights, store fronts and display cases or surfaces such as building fronts, interior walls, ceilings and table tops and metal store fronts. Installation of aluminum window walls and curtain walls is the "joint" work of glaziers and ironworkers, which require equal composite workforce.

- **IRONWORKERS**

Erection, installation and placement of structural steel, precast concrete, miscellaneous iron, ornamental iron, metal curtain wall, rigging and reinforcing steel. Handling, sorting, and installation of reinforcing steel (rebar). Metal bridge rail (traffic), metal bridge handrail, and decorative security fence installation. Installation of aluminum window walls and curtain walls is the "joint" work of glaziers and ironworkers which require equal composite workforce.

- **INSULATOR**

- Installing fire stopping systems/materials for "Penetration Firestop Systems": transit to cables, electrical conduits, insulated pipes, sprinkler pipe penetrations, ductwork behind radiation, electrical cable trays, fire rated pipe penetrations, natural polypropylene, HVAC ducts, plumbing bare metal, telephone and communication wires, and boiler room ceilings.

- **LABORERS**

Acetylene burners, asphalt rakers, chain saw operators, concrete and power buggy operator, concrete saw operator, fence and guard rail erector (except metal bridge rail (traffic), decorative security fence (non-metal)).

installation.), hand operated concrete vibrator operator, mason tenders, pipelayers (installation of storm drainage or sewage lines on the street only), pneumatic drill operator, pneumatic gas and electric drill operator, powermen and wagon drill operator, air track operator, block paver, curb setters, blasters, concrete spreaders.

- **PAINTERS**

Maintenance, preparation, cleaning, blasting (water and sand, etc.), painting or application of any protective coatings of every description on all bridges and appurtenances of highways, roadways, and railroads. Painting, decorating, hardwood finishing, paper hanging, sign writing, scenic art work and drywall hhg for any and all types of building and residential work.

- **LEAD PAINT REMOVAL**

- Painter's Rate

1. Removal of lead paint from bridges.
2. Removal of lead paint as preparation of any surface to be repainted.
3. Where removal is on a Demolition project prior to reconstruction.

- Laborer's Rate

1. Removal of lead paint from any surface NOT to be repainted.
2. Where removal is on a *TOTAL* Demolition project only.

- **PLUMBERS AND PIPEFITTERS**

Installation, repair, replacement, alteration or maintenance of all plumbing, heating, cooling and piping. ****License required per Connecticut General Statutes: P-1,2,6,7,8,9 J-1,2,3,4 SP-1,2 S-1,2,3,4,5,6,7,8 B-1,2,3,4 D-1,2,3,4.***

- **POWER EQUIPMENT OPERATORS**

Operates several types of power construction equipment such as compressors, pumps, hoists, derricks, cranes, shovels, tractors, scrapers or motor graders, etc. Repairs and maintains equipment. ****License required, crane operators only, per Connecticut General Statutes.***

- **ROOFERS**

Covers roofs with composition shingles or sheets, wood shingles, slate or asphalt and gravel to waterproof roofs, including preparation of surface. (demolition or removal of any type of roofing and or clean-up of any and all areas where a roof is to be relaid.)

- **SHEETMETAL WORKERS**

Fabricate, assemble, install and repair sheetmetal products and equipment in such areas as ventilation, air-conditioning, warm air heating, restaurant equipment, architectural sheet metal work, sheetmetal roofing, and aluminum gutters. Fabrication, handling, assembling, erecting, altering, repairing, etc. of coated metal material panels and composite metal material panels when used on building exteriors and interiors as soffits, fascia, louvers, partitions, canopies, cornice, column covers, awnings, beam covers, cladding, sun shades, lighting troughs, spires, ornamental roofing, metal ceilings, mansards, copings, ornamental and ventilation hoods, vertical and horizontal siding panels, trim, etc. The sheet metal classification also applies to the vast variety of coated metal material panels and composite metal material panels that have evolved over the years as an alternative to conventional ferrous and non-ferrous metals like steel, iron, tin, copper, brass, bronze, aluminum, etc. Fabrication, handling, assembling, erecting, altering, repairing, etc. of architectural metal roof, standing seam roof, composite metal roof, metal and composite bathroom/toilet partitions, aluminum gutters, metal and composite lockers and shelving, kitchen equipment, and walk-in coolers. To include testing and air –balancing ancillary to installation and construction.

- **SPRINKLER FITTERS**

Installation, alteration, maintenance and repair of fire protection sprinkler systems.

****License required per Connecticut General Statutes: F-1,2,3,4.***

- **TILE MARBLE AND TERRAZZO FINISHERS**

Assists and tends the tile setter, marble mason and terrazzo worker in the performance of their duties.

- **TRUCK DRIVERS**

~How to pay truck drivers delivering asphalt is under REVISION~

Truck Drivers are required to be paid prevailing wage for time spent "working" directly on the site. These drivers remain covered by the prevailing wage for any time spent transporting between the actual construction location and facilities (such as fabrication, plants, mobile factories, batch plant, borrow pits, job headquarters, tool yards, etc.) dedicated exclusively, or nearly so, to performance of the contract or project, which are so located in proximity to the actual construction location that it is reasonable to include them. ****License required, drivers only, per Connecticut General Statutes.***

For example:

- Material men and deliverymen are not covered under prevailing wage as long as they are not directly involved in the construction process. If, they unload the material, they would then be covered by prevailing wage for the classification they are performing work in: laborer, equipment operator, etc.
- Hauling material off site is not covered provided they are not dumping it at a location outlined above.
- Driving a truck on site and moving equipment or materials on site would be considered covered work, as this is part of the construction process.

➤ *Any questions regarding the proper classification should be directed to:*
Public Contract Compliance Unit
Wage and Workplace Standards Division
Connecticut Department of Labor
200 Folly Brook Blvd, Wethersfield, CT 06109
(860) 263-6543.

Sec. 31-53b. Worker training requirements for public works projects. Enforcement.

Regulations. Exceptions. (a) Each contract for a public works project entered into on or after July 1, 2009, by the state or any of its agents, or by any political subdivision of the state or any of its agents, described in subsection (h) of section 31-53, shall contain a provision requiring that each contractor furnish proof with the weekly certified payroll form for the first week each employee begins work on such project that any person performing the work of a mechanic, laborer or worker pursuant to the classifications of labor under section 31-53 on such public works project, pursuant to such contract, has completed a course of at least ten hours in duration in construction safety and health approved by the federal Occupational Safety and Health Administration or, has completed a new miner training program approved by the Federal Mine Safety and Health Administration in accordance with 30 CFR 46 or, in the case of telecommunications employees, has completed at least ten hours of training in accordance with 29 CFR 1910.268, and on or after July 1, 2012, that any plumber or electrician subject to the continuing education requirements of section 20-334d, who has completed a course of at least ten hours in duration in construction safety and health approved by federal Occupational Safety and Health Administration five or more years prior to the date such electrician or plumber begins work on such public works project, has completed a supplemental refresher training course of at least four hours in duration in construction safety and health taught by a federal Occupational Safety and Health Administration authorized trainer.

(b) Any person required to complete a course or program under subsection (a) of this section who has not completed the course or program shall be subject to removal from the worksite if the person does not provide documentation of having completed such course or program by the fifteenth day after the date the person is found to be in noncompliance. The Labor Commissioner or said commissioner's designee shall enforce this section.

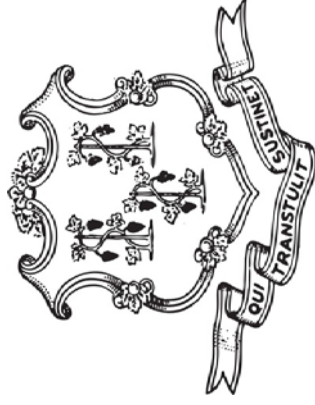
(c) Not later than January 1, 2012, the Labor Commissioner shall adopt regulations, in accordance with the provisions of chapter 54, to implement the provisions of subsections (a) and (b) of this section. Such regulations shall require that the ten-hour construction safety and health courses required under subsection (a) of this section be conducted in accordance with federal Occupational Safety and Health Administration Training Institute standards, or in the case of a supplemental refresher training course, shall include, but not be limited to, an update of revised Occupational Safety and Health Administration standards and a review of required construction hazards training, or in accordance with Federal Mine Safety and Health Administration Standards or in accordance with 29 CFR 1910.268, as appropriate. The Labor Commissioner shall accept as sufficient proof of compliance with the provisions of subsection (a) or (b) of this section a student course completion card issued by the federal Occupational Safety and Health Administration Training Institute, or such other proof of compliance said commissioner deems appropriate, dated no earlier than five years before the commencement date of such public works project or, in the case of supplemental refresher training, a student course completion card issued by said Occupational Safety and Health Administration authorized

trainer dated not earlier than five years prior to the date such electrician or plumber begins work on such public works project.

(d) This section shall not apply to employees of public service companies, as defined in section 16-1, or drivers of commercial motor vehicles driving the vehicle on the public works project and delivering or picking up cargo from public works projects provided they perform no labor relating to the project other than the loading and unloading of their cargo.

(P.A. 06-175, S. 1; P.A. 08-83, S. 1; P.A. 10-47, S. 2; P.A. 11-63, S. 1)

History: P.A. 08-83 amended Subsec. (a) by making provisions applicable to public works project contracts entered into on or after July 1, 2009, replacing provision re total cost of work with reference to Sec. 31-53(g), requiring proof in certified payroll form that new mechanic, laborer or worker has completed a 10-hour or more construction safety course and adding provision re new miner training program, amended Subsec. (b) by substituting "person" for "employee" and adding "or program", amended Subsec. (c) by adding "or in accordance with Federal Mine Safety and Health Administration Standards" and setting new deadline of January 1, 2009, deleted former Subsec. (d) re "public building", added new Subsec. (d) re exemptions for public service company employees and delivery drivers who perform no labor other than delivery and made conforming and technical changes, effective January 1, 2009; P.A. 10-47 made a technical change in Subsec. (a); P.A. 11-63 amended Subsec. (a) by adding provision re supplemental refresher training course for plumbers and electricians subject to Sec. 20-334d, amended Subsec. (c) by adding provisions re regulations and subject matter of refresher training course and refresher train course student completion cards, and made technical changes, effective July 1, 2011.



THIS IS A PUBLIC WORKS PROJECT

Covered by the

PREVAILING WAGE LAW

CT General Statutes Section 31-53

**If you have QUESTIONS regarding your wages
CALL (860) 263-6790**

Section 31-55 of the CT State Statutes requires every contractor or subcontractor performing work for the state to post in a prominent place the prevailing wages as determined by the Labor Commissioner.

Informational Bulletin

THE 10-HOUR OSHA CONSTRUCTION SAFETY AND HEALTH COURSE

(applicable to public building contracts entered into *on or after July 1, 2007*, where the total cost of all work to be performed is at least \$100,000)

- (1) This requirement was created by Public Act No. 06-175, which is codified in Section 31-53b of the Connecticut General Statutes (pertaining to the prevailing wage statutes);
- (2) The course is required for public building construction contracts (projects funded in whole or in part by the state or any political subdivision of the state) entered into on or after July 1, 2007;
- (3) It is required of private employees (not state or municipal employees) and apprentices who perform manual labor for a general contractor or subcontractor on a public building project where the total cost of all work to be performed is at least \$100,000;
- (4) The ten-hour construction course pertains to the ten-hour Outreach Course conducted in accordance with federal OSHA Training Institute standards, and, for telecommunications workers, a ten-hour training course conducted in accordance with federal OSHA standard, 29 CFR 1910.268;
- (5) The internet website for the federal OSHA Training Institute is http://www.osha.gov/fso/ote/training/edcenters/fact_sheet.html;
- (6) The statutory language leaves it to the contractor and its employees to determine who pays for the cost of the ten-hour Outreach Course;
- (7) Within 30 days of receiving a contract award, a general contractor must furnish proof to the Labor Commissioner that all employees and apprentices performing manual labor on the project will have completed such a course;
- (8) Proof of completion may be demonstrated through either: (a) the presentation of a *bona fide* student course completion card issued by the federal OSHA Training Institute; *or* (2) the presentation of documentation provided to an employee by a trainer certified by the Institute pending the actual issuance of the completion card;
- (9) Any card with an issuance date more than 5 years prior to the commencement date of the construction project shall not constitute proof of compliance;

- (10) Each employer shall affix a copy of the construction safety course completion card to the certified payroll submitted to the contracting agency in accordance with Conn. Gen. Stat. § 31-53(f) on which such employee's name first appears;
- (11) Any employee found to be in non-compliance shall be subject to removal from the worksite if such employee does not provide satisfactory proof of course completion to the Labor Commissioner by the fifteenth day after the date the employee is determined to be in noncompliance;
- (12) Any such employee who is determined to be in noncompliance may continue to work on a public building construction project for a maximum of fourteen consecutive calendar days while bringing his or her status into compliance;
- (13) The Labor Commissioner may make complaint to the prosecuting authorities regarding any employer or agent of the employer, or officer or agent of the corporation who files a false certified payroll with respect to the status of an employee who is performing manual labor on a public building construction project;
- (14) The statute provides the minimum standards required for the completion of a safety course by manual laborers on public construction contracts; any contractor can exceed these minimum requirements; and
- (15) Regulations clarifying the statute are currently in the regulatory process, and shall be posted on the CTDOL website as soon as they are adopted in final form.
- (16) Any questions regarding this statute may be directed to the Wage and Workplace Standards Division of the Connecticut Labor Department via the internet website of <http://www.ctdol.state.ct.us/wgwkstnd/wgemenu.htm>; or by telephone at (860)263-6790.

THE ABOVE INFORMATION IS PROVIDED EXCLUSIVELY AS AN EDUCATIONAL RESOURCE, AND IS NOT INTENDED AS A SUBSTITUTE FOR LEGAL INTERPRETATIONS WHICH MAY ULTIMATELY ARISE CONCERNING THE CONSTRUCTION OF THE STATUTE OR THE REGULATIONS.

November 29, 2006

Notice
To All Mason Contractors and Interested Parties
Regarding Construction Pursuant to Section 31-53 of the
Connecticut General Statutes (Prevailing Wage)

The Connecticut Labor Department Wage and Workplace Standards Division is empowered to enforce the prevailing wage rates on projects covered by the above referenced statute.

Over the past few years the Division has withheld enforcement of the rate in effect for workers who operate a forklift on a prevailing wage rate project due to a potential jurisdictional dispute.

The rate listed in the schedules and in our Occupational Bulletin (see enclosed) has been as follows:

Forklift Operator:

- **Laborers (Group 4) Mason Tenders** - operates forklift solely to assist a mason to a maximum height of nine feet only.
- **Power Equipment Operator (Group 9)** - operates forklift to assist any trade and to assist a mason to a height over nine feet.

The U.S. Labor Department conducted a survey of rates in Connecticut but it has not been published and the rate in effect remains as outlined in the above Occupational Bulletin.

Since this is a classification matter and not one of jurisdiction, effective January 1, 2007 the Connecticut Labor Department will enforce the rate on each schedule in accordance with our statutory authority.

Your cooperation in filing appropriate and accurate certified payrolls is appreciated.

NOTICE

TO ALL CONTRACTING AGENCIES

Please be advised that Connecticut General Statutes Section 31-53, requires the contracting agency to certify to the Department of Labor, the total dollar amount of work to be done in connection with such public works project, regardless of whether such project consists of one or more contracts.

Please find the attached “Contracting Agency Certification Form” to be completed and returned to the Department of Labor, Wage and Workplace Standards Division, Public Contract Compliance Unit.

Inquiries can be directed to 860.263.6790.



CONNECTICUT DEPARTMENT OF LABOR
WAGE AND WORKPLACE STANDARDS DIVISION

Contracting Agency Certification Form

I, _____, acting in my official capacity as _____,
Authorized Representative Title
for _____, located at _____,
Contracting Agency Address

do hereby certify that the total dollar amount of work to be done in connection with

_____, located at _____,
Project name and number Address

shall be \$_____, which includes all work, regardless of whether such project
contains of one or more contracts.

Contractor Information

Name: _____

Address: _____

Authorized Representative: _____

Approximate Starting Date: _____

Approximate Completion Date: _____

Signature

Date

Return to:

Connecticut Department of Labor
Wage & Workplace Standards Division
200 Folly Brook Blvd.
Wethersfield, CT 06109

Rate Schedule Issued (Date): _____

[New] In accordance with Section 31-53b(a) of the C.G.S. each contractor shall provide a copy of the OSHA 10 Hour Construction Safety and Health Card for each employee, to be attached to the first certified payroll on the project.

[illegible]

OSHA 10 ~ ATTACH CARD TO 1ST CERTIFIED PAYROLL

***FRINGE BENEFITS EXPLANATION (P):**

Bona fide benefits paid to approved plans, funds or programs, except those required by Federal or State Law (unemployment tax, worker's compensation, income taxes, etc.).

Please specify the type of benefits provided:

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

CERTIFIED STATEMENT OF COMPLIANCE

For the week ending date of _____,

I, _____ of _____, (hereafter known as

Employer) in my capacity as _____ (title) do hereby certify and state:

Section A:

1. All persons employed on said project have been paid the full weekly wages earned by them during the week in accordance with Connecticut General Statutes, section 31-53, as amended. Further, I hereby certify and state the following:

- a) The records submitted are true and accurate;
- b) The rate of wages paid to each mechanic, laborer or workman and the amount of payment or contributions paid or payable on behalf of each such employee to any employee welfare fund, as defined in Connecticut General Statutes, section 31-53 (h), are not less than the prevailing rate of wages and the amount of payment or contributions paid or payable on behalf of each such employee to any employee welfare fund, as determined by the Labor Commissioner pursuant to subsection Connecticut General Statutes, section 31-53 (d), and said wages and benefits are not less than those which may also be required by contract;
- c) The Employer has complied with all of the provisions in Connecticut General Statutes, section 31-53 (and Section 31-54 if applicable for state highway construction);
- d) Each such employee of the Employer is covered by a worker's compensation insurance policy for the duration of his employment which proof of coverage has been provided to the contracting agency;
- e) The Employer does not receive kickbacks, which means any money, fee, commission, credit, gift, gratuity, thing of value, or compensation of any kind which is provided directly or indirectly, to any prime contractor, prime contractor employee, subcontractor, or subcontractor employee for the purpose of improperly obtaining or rewarding favorable treatment in connection with a prime contract or in connection with a prime contractor in connection with a subcontractor relating to a prime contractor; and
- f) The Employer is aware that filing a certified payroll which he knows to be false is a class D felony for which the employer may be fined up to five thousand dollars, imprisoned for up to five years or both.

2. OSHA~The employer shall affix a copy of the construction safety course, program or training completion document to the certified payroll required to be submitted to the contracting agency for this project on which such employee's name first appears.

(Signature) (Title) Submitted on (Date)

Section B: Applies to CONNDOT Projects ONLY

That pursuant to CONNDOT contract requirements for reporting purposes only, all employees listed under Section B who performed work on this project are not covered under the prevailing wage requirements defined in Connecticut General Statutes Section 31-53.

(Signature) (Title) Submitted on (Date)

Note: CTDOL will assume all hours worked were performed under Section A unless clearly delineated as Section B WWS-CP1 as such. Should an employee perform work under both Section A and Section B, the hours worked and wages paid must be segregated for reporting purposes.

THIS IS A PUBLIC DOCUMENT

DO NOT INCLUDE SOCIAL SECURITY NUMBERS

FIXTURES, FURNITURE, & EQUIPMENT/TECHNOLOGY PACKAGE – PHASE 2

**ACES WINTERGREEN INTERDISTRICT MAGNET SCHOOL
670 WINTERGREEN AVENUE
HAMDEN, CT 06514
STATE PROJECT #244-0045 MAG**

S/P+A PROJECT #22.125

<u>Drawing Number</u>	<u>Drawing Name</u>
-----------------------	---------------------

COVER

Fixtures, Furniture, & Equipment Drawings

FFE-1	OVERALL FURNITURE PLAN
FFE-2	PART 'A' FURNITURE PLAN
FFE-3	PART 'B' FURNITURE PLAN
FFE-4	PART 'C' FURNITURE PLAN
FFE-5	PART 'D' FURNITURE PLAN
FFE-6	ENLARGED FURNITURE PLANS
FFE-7	ENLARGED FURNITURE PLANS

Technology Equipment Drawings

T001	SYMBOLS, NOTES & ABBREVIATIONS – TECHNOLOGY
T002-T099	NOT USED
T100	PART 'A' FLOOR PLAN – TECHNOLOGY
T101	PART 'B' FLOOR PLAN – TECHNOLOGY
T102	PART 'C' FLOOR PLAN – TECHNOLOGY
T103	PART 'D' FLOOR PLAN – TECHNOLOGY

END OF DRAWING LIST

SECTION 012200 - UNIT PRICES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for unit prices.
- B. Related Sections:
 - 1. Section 012600 "Contract Modification Procedures" for procedures for submitting and handling Change Orders.

1.3 DEFINITIONS

- A. Unit price is an amount incorporated in the Agreement, applicable during the duration of the Work as a price per unit of measurement for materials, equipment, or services, or a portion of the Work, added to or deducted from the Contract Sum by appropriate modification, if the scope of Work or estimated quantities of Work required by the Contract Documents are increased or decreased.

1.4 PROCEDURES

- A. Unit prices include all necessary material, plus cost for delivery, installation, insurance, applicable taxes, overhead, and profit.
- B. Measurement and Payment: Refer to individual Specification Sections for work that requires establishment of unit prices. Methods of measurement and payment for unit prices are specified in those Sections.
- C. Owner reserves the right to reject Contractor's measurement of work-in-place that involves use of established unit prices and to have this work measured, at Owner's expense, by an independent surveyor acceptable to Contractor.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 SCHEDULE OF UNIT PRICES

- A. A list of unit prices is included in the Category Summary Sheets.

END OF SECTION 012200

SECTION 012500 - SUBSTITUTION PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for substitutions.
- B. Related Sections:
 - 1. Section 016000 "Product Requirements" for requirements for submitting comparable product submittals for products by listed manufacturers.
 - 2. Divisions 02 through 49 Sections for specific requirements and limitations for substitutions.

1.3 DEFINITIONS

- A. Substitutions: Changes in products, materials, equipment, and methods of construction from those required by the Contract Documents and proposed by Contractor.
 - 1. Substitutions for Cause: Changes proposed by Contractor that are required due to changed Project conditions, such as unavailability of product, regulatory changes, or unavailability of required warranty terms.
 - 2. Substitutions for Convenience: Changes proposed by Contractor or Owner that are not required in order to meet other Project requirements but may offer advantage to Contractor or Owner.

1.4 SUBMITTALS

- A. Substitution Requests: Submit three (3) copies of each request for consideration. Identify product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles.
 - 1. Substitution Request Form: Use **CSI Form 1.5C, 13.1A**, or comparable form.
 - 2. Documentation: Show compliance with requirements for substitutions and the following, as applicable:
 - a. Statement indicating why specified product or fabrication or installation cannot be provided, if applicable.
 - b. Coordination information, including a list of changes or modifications needed to other parts of the Work and to construction performed by Owner and separate contractors, that will be necessary to accommodate proposed substitution.
 - c. Detailed, SIDE-BY-SIDE comparison of significant qualities of proposed substitution with those of the Work specified. Include annotated copy of applicable specification section. Significant qualities may include attributes such as performance, weight, size, durability, visual effect, sustainable design characteristics, warranties, and specific features and requirements indicated. Indicate deviations, if any, from the Work specified.

- d. Product Data, including drawings and descriptions of products and fabrication and installation procedures.
 - e. Samples, where applicable or requested.
 - f. Certificates and qualification data, where applicable or requested.
 - g. List of similar installations for completed projects with project names and addresses and names and addresses of Architects and Owners.
 - h. Material test reports from a qualified testing agency indicating and interpreting test results for compliance with requirements indicated.
 - i. Research reports evidencing compliance with building code in effect for Project, from ICC-ES.
 - j. Detailed comparison of Contractor's construction schedule using proposed substitution with products specified for the Work, including effect on the overall Contract Time. If specified product or method of construction cannot be provided within the Contract Time, include letter from manufacturer, on manufacturer's letterhead, stating date of receipt of purchase order, lack of availability, or delays in delivery.
 - k. Cost information, including a proposal of change, if any, in the Contract Sum.
 - l. Contractor's certification that proposed substitution complies with requirements in the Contract Documents except as indicated in substitution request, is compatible with related materials, and is appropriate for applications indicated.
 - m. Contractor's waiver of rights to additional payment or time that may subsequently become necessary because of failure of proposed substitution to produce indicated results.
3. Architect's Action: If necessary, Architect will request additional information or documentation for evaluation within seven (7) days of receipt of a request for substitution. Architect will notify Contractor of acceptance or rejection of proposed substitution within fifteen (15) days of receipt of request, or seven (7) days of receipt of additional information or documentation, whichever is later.
- a. Forms of Acceptance: Change Order, Construction Change Directive, or Architect's Supplemental Instructions for minor changes in the Work.
 - b. Use product specified if Architect does not issue a decision on use of a proposed substitution within time allocated.

1.5 QUALITY ASSURANCE

- A. Compatibility of Substitutions: Investigate and document compatibility of proposed substitution with related products and materials. Engage qualified testing agency to perform compatibility tests recommended by manufacturers.

1.6 PROCEDURES

- A. Coordination: Modify or adjust affected work as necessary to integrate work of the approved substitutions.

PART 2 - PRODUCTS

2.1 SUBSTITUTIONS

- A. Procurement Substitution Request: Submit to Architect seven (7) days prior to date of bid opening.

- B. Substitutions for Cause: Submit requests for substitution immediately upon discovery of need for change, but not later than fifteen (15) days prior to time required for preparation and review of related submittals.
1. Conditions: Architect will consider Contractor's request for substitution when the following conditions are satisfied. If the following conditions are not satisfied, Architect will return requests without action, except to record noncompliance with these requirements:
 - a. Requested substitution is consistent with the Contract Documents and will produce indicated results.
 - b. Substitution request is fully documented and properly submitted.
 - c. Requested substitution will not adversely affect Contractor's construction schedule.
 - d. Requested substitution has received necessary approvals of authorities having jurisdiction.
 - e. Requested substitution is compatible with other portions of the Work.
 - f. Requested substitution has been coordinated with other portions of the Work.
 - g. Requested substitution provides specified warranty.
 - h. If requested substitution involves more than one (1) contractor, requested substitution has been coordinated with other portions of the Work, is uniform and consistent, is compatible with other products, and is acceptable to all contractors involved.
- C. Substitutions for Convenience: Architect will consider requests for substitution if received within sixty (60) days after the Notice to Proceed. Requests received after that time may be considered or rejected at discretion of Architect.
1. Conditions: Architect will consider Contractor's request for substitution when the following conditions are satisfied. If the following conditions are not satisfied, Architect will return requests without action, except to record noncompliance with these requirements:
 - a. Requested substitution offers Owner a substantial advantage in cost, time, energy conservation, or other considerations, after deducting additional responsibilities Owner must assume. Owner's additional responsibilities may include compensation to Architect for redesign and evaluation services, increased cost of other construction by Owner, and similar considerations.
 - b. Requested substitution does not require extensive revisions to the Contract Documents.
 - c. Requested substitution is consistent with the Contract Documents and will produce indicated results.
 - d. Substitution request is fully documented and properly submitted.
 - e. Requested substitution will not adversely affect Contractor's construction schedule.
 - f. Requested substitution has received necessary approvals of authorities having jurisdiction.
 - g. Requested substitution is compatible with other portions of the Work.
 - h. Requested substitution has been coordinated with other portions of the Work.
 - i. Requested substitution provides specified warranty.
 - j. If requested substitution involves more than one (1) contractor, requested substitution has been coordinated with other portions of the Work, is uniform and consistent, is compatible with other products, and is acceptable to all contractors involved.

PART 3 - EXECUTION (Not Used)

END OF SECTION 012500

SECTION 012600 - CONTRACT MODIFICATION PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for handling and processing Contract modifications.
- B. Related Sections:
 - 1. Section 016000 "Product Requirements" for administrative procedures for handling requests for substitutions made after Contract award.

1.3 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 AIA Document G710, "Architect's Supplemental Instructions."

1.4 PROPOSAL REQUESTS

- A. Owner-Initiated Proposal Requests: Architect will issue a detailed description of proposed changes in the Work that may require adjustment to the Contract Sum or the Contract Time. If necessary, the description will include supplemental or revised Drawings and Specifications.
 - 1. Proposal Requests issued by Architect are not instructions either to stop work in progress or to execute the proposed change.
 - 2. Within time specified in Proposal Request or twenty (20) days, when not otherwise specified, after receipt of Proposal Request, submit a quotation estimating cost adjustments to the Contract Sum and the Contract Time necessary to execute the change.
 - a. Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities.
 - b. Indicate applicable delivery charges, equipment rental, and amounts of trade discounts.
 - c. Include costs of labor and supervision directly attributable to the change.
 - d. Include an updated Vendor's schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times, and activity relationship. Use available total float before requesting an extension of the Contract Time.
 - e. Quotation Form: Use forms acceptable to Architect.
- B. Vendor-Initiated Proposals: If latent or changed conditions require modifications to the Contract, Vendor may initiate a claim by submitting a request for a change to the 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. Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities.
3. Indicate applicable delivery charges, equipment rental, and amounts of trade discounts.
4. Include costs of labor and supervision directly attributable to the change.
5. Include an updated Vendor's schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times, and activity relationship. Use available total float before requesting an extension of the Contract Time.
6. Comply with requirements in Section 012500 "Substitution Procedures" if the proposed change requires substitution of one product or system for product or system specified.
7. Proposal Request Form: Use form acceptable to Architect.

1.5 ADMINISTRATIVE CHANGE ORDERS

- A. Unit Price Adjustment: Refer to Section 012200 "Unit Prices" for administrative procedures for preparation of Change Order Proposal for adjusting the Contract Sum to reflect measured scope of unit price work.

1.6 CHANGE ORDER PROCEDURES

- A. On Owner's approval of a Proposal Request, Architect will issue a Change Order for signatures of Owner and Vendor on AIA Document G701.

1.7 CONSTRUCTION CHANGE DIRECTIVE

- A. Construction Change Directive: Architect may issue a Construction Change Directive on AIA Document G714. Construction Change Directive instructs Vendor to proceed with a change in the Work, for subsequent inclusion in a Change Order.
 1. Construction Change Directive contains a complete description of change in the Work. It also designates method to be followed to determine change in the Contract Sum or the Contract Time.
- B. Documentation: Maintain detailed records on a time and material basis of work required by the Construction Change Directive.
 1. After completion of change, submit an itemized account and supporting data necessary to substantiate cost and time adjustments to the Contract.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 012600

SECTION 012900 - PAYMENT PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. This Section specifies administrative and procedural requirements necessary to prepare and process Applications for Payment.
- B. Related Sections:
 - 1. Section 012200 "Unit Prices" for administrative requirements governing the use of unit prices.
 - 2. Section 012600 "Contract Modification Procedures" for administrative procedures for handling changes to the Contract.
 - 3. Section 013200 "Construction Progress Documentation" for administrative requirements governing the preparation and submittal of the Vendor's schedule.
 - 4. Section 013300 "Submittal Procedures" for administrative requirements governing the preparation and submittal of the submittal schedule.

1.3 SCHEDULE OF VALUES

- A. Coordination: Coordinate preparation of the schedule of values with preparation of Vendor's schedule.
 - 1. Correlate line items in the schedule of values with other required administrative forms and schedules, including the following:
 - a. Application for Payment forms with continuation sheets.
 - b. Submittal schedule.
 - c. Items required to be indicated as separate activities in Vendor's schedule.
 - 2. Submit the schedule of values to Architect at earliest possible date but no later than seven (7) days before the date scheduled for submittal of initial Applications for Payment.
- B. Format and Content: Use the Project Manual table of contents as a guide to establish line items for the schedule of values. Provide at least one (1) line item for each Specification Section.
 - 1. Identification: Include the following Project identification on the schedule of values:
 - a. Project name and location.
 - b. Name of Architect.
 - c. Architect's project number.
 - d. Vendor's name and address.
 - e. Date of submittal.
 - 2. Arrange schedule of values consistent with format of AIA Document G703.

3. Provide a breakdown of the Contract Sum in enough detail to facilitate continued evaluation of Applications for Payment and progress reports. Coordinate with the Project Manual table of contents. Provide multiple line items for principal subcontract amounts in excess of five percent (5%) of Contract Sum.
4. Round amounts to nearest whole dollar; total shall equal the Contract Sum.
5. Provide a separate line item in the schedule of values for each part of the Work where Applications for Payment may include materials or equipment purchased or fabricated and stored, but not yet installed.
6. Provide separate line items in the schedule of values for initial cost of materials, for each subsequent stage of completion, and for total installed value of that part of the Work.
7. Each item in the schedule of values and Applications for Payment shall be complete. Include total cost and proportionate share of general overhead and profit for each item.
 - a. Temporary facilities and other major cost items that are not direct cost of actual work-in-place may be shown either as separate line items in the schedule of values or distributed as general overhead expense, at Vendor's option.
8. Schedule Updating: Update and resubmit the schedule of values before the next Applications for Payment when Change Orders or Construction Change Directives result in a change in the Contract Sum.

1.4 APPLICATIONS FOR PAYMENT

- A. Each Application for Payment shall be consistent with previous applications and payments as certified by Architect and paid for by Owner.
 1. Initial Application for Payment, Application for Payment at time of Substantial Completion, and final Application for Payment involve additional requirements.
- B. Payment Application Times: The date for each progress payment is indicated in the Agreement between Owner and Vendor. The period of construction work covered by each Application for Payment is the period indicated in the Agreement.
- C. Application for Payment Forms: Use AIA Document G702 and AIA Document G703 as form for Applications for Payment.
- D. Application Preparation: Complete every entry on form. Notarize and execute by a person authorized to sign legal documents on behalf of Vendor. Architect will return incomplete applications without action.
 1. Entries shall match data on the schedule of values and Vendor's schedule. Use updated schedules if revisions were made.
 2. Include amounts for work completed following previous Application for Payment, whether or not payment has been received. Include only amounts for work completed at time of Application for Payment.
 3. Include amounts of Change Orders and Construction Change Directives issued before last day of construction period covered by application.
 4. Indicate separate amounts for work being carried out under Owner-requested project acceleration.
 5. Include updated and approved Vendor's schedule, potential Change Order Log, and Product Submittal Log.
- E. Transmittal: Submit three (3) signed and notarized original copies of each Application for Payment to Architect by a method ensuring receipt within 24 hours.

1. Transmit each copy with a transmittal form listing attachments and recording appropriate information about application.
 2. A single electronic and notarized copy may be submitted in lieu of paper copies.
- F. Initial Application for Payment: Administrative actions and submittals that must precede or coincide with submittal of first Application for Payment include the following:
1. Schedule of values.
 2. Vendor's schedule (preliminary if not final).
 3. Products list (preliminary if not final).
 4. Schedule of unit prices.
 5. Submittal schedule (preliminary if not final).
 6. Copies of authorizations and licenses from authorities having jurisdiction for performance of the Work.
 7. Initial progress report.
 8. Report of pre-construction conference.
 9. Certificates of insurance and insurance policies.
 10. Performance and payment bonds.
 11. Data needed to acquire Owner's insurance.
- G. Application for Payment at Substantial Completion: After issuing the Certificate of Substantial Completion, submit an Application for Payment showing one hundred percent (100%) completion for portion of the Work claimed as substantially complete.
1. Include documentation supporting claim that the Work is substantially complete and a statement showing an accounting of changes to the Contract Sum.
 2. This application shall reflect Certificates of Partial Substantial Completion issued previously for Owner occupancy of designated portions of the Work.
- H. Final Payment Application: Submit final Application for Payment with releases and supporting documentation not previously submitted and accepted, including, but not limited, to the following:
1. Evidence of completion of Project closeout requirements.
 2. Insurance certificates for products and completed operations where required and proof that taxes, fees, and similar obligations were paid.
 3. Updated final statement, accounting for final changes to the Contract Sum.
 4. AIA Document G706, "Contractor's Affidavit of Payment of Debts and Claims."
 5. AIA Document G707, "Consent of Surety to Final Payment."
 6. Evidence that claims have been settled.
 7. Final liquidated damages settlement statement.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 012900

SECTION 013100 - PROJECT MANAGEMENT AND COORDINATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section includes administrative provisions for coordinating construction operations on Project including, but not limited to, the following:
 - 1. Requests for Information (RFIs).
 - 2. Project meetings.
- B. Related Sections:
 - 1. Section 013200 "Construction Progress Documentation" for preparing and submitting Vendor's schedule.
 - 2. Section 017700 "Closeout Procedures" for coordinating closeout of the Contract.

1.3 DEFINITIONS

- A. RFI: Request from Owner, Architect, or Vendor seeking information from each other during construction.

1.4 REQUESTS FOR INFORMATION (RFIs)

- A. General: Immediately on discovery of the need for additional information or interpretation of the Contract Documents, Vendor shall prepare and submit an RFI in the form specified.
 - 1. Coordinate and submit RFIs in a prompt manner so as to avoid delays in work.
- B. Content of the RFI: Include a detailed, legible description of item needing information or interpretation and the following:
 - 1. Project name.
 - 2. Project number.
 - 3. Date.
 - 4. Name of Vendor.
 - 5. Name of Architect.
 - 6. RFI number, numbered sequentially.
 - 7. RFI subject.
 - 8. Specification Section number and title and related paragraphs, as appropriate.
 - 9. Drawing number and detail references, as appropriate.
 - 10. Field dimensions and conditions, as appropriate.
 - 11. Vendor's suggested resolution. If Vendor's solution(s) impacts the Contract Time or the Contract Sum, Vendor shall state impact in the RFI.
 - 12. Vendor's signature.
 - 13. Attachments: Include sketches, descriptions, measurements, photos, Product Data, Shop Drawings, and other information necessary to fully describe items needing interpretation.

- a. Include dimensions, thicknesses, and details of affected materials, assemblies, and attachments on attached sketches.
- C. RFI Forms: AIA Document G716 or comparable form.
- D. Architect's Action: Architect will review each RFI, determine action required, and respond. Allow seven (7) working days for Architect's response for each RFI. RFIs received by Architect after 1:00 p.m. will be considered as received the following working day.
 - 1. The following RFIs will be returned without action:
 - 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. Incomplete RFIs or inaccurately prepared RFIs.
 - 2. Architect's action may include a request for additional information, in which case Architect's time for response will date from time of receipt of additional information.
 - 3. Architect's action on RFIs that may result in a change to the Contract Time or the Contract Sum may be eligible for Vendor to submit Change Proposal according to Section 012600 "Contract Modification Procedures."
 - a. If Vendor believes the RFI response warrants change in the Contract Time or the Contract Sum, notify Architect in writing within ten (10) days of receipt of the RFI response.
- E. 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 (7) days if Vendor disagrees with response.
- F. RFI Log: Prepare, maintain, and submit a tabular log of RFIs organized by the RFI number. Submit log weekly. Include the following:
 - 1. Project name.
 - 2. Name and address of Vendor.
 - 3. Name and address of Architect.
 - 4. RFI number including RFIs that were dropped and not submitted.
 - 5. RFI description.
 - 6. Date the RFI was submitted.
 - 7. Date Architect's response was received.
 - 8. Identification of related Minor Change in the Work, Construction Change Directive, and Proposal Request, as appropriate.

1.5 PROJECT MEETINGS

- A. General: Schedule and conduct meetings and conferences at Project site, unless otherwise indicated.
 - 1. Attendees: Inform participants and others involved, and individuals whose presence is required, of date and time of each meeting. Notify Owner and Architect of scheduled meeting dates and times.
 - 2. Agenda: Prepare the meeting agenda. Distribute the agenda to all invited attendees.

3. Minutes: Vendor is responsible for recording significant discussions and agreements achieved. Vendor is also responsible for distributing the meeting minutes to everyone concerned including Owner and Architect, within three (3) days of the meeting.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 013100

SECTION 013200 - CONSTRUCTION PROGRESS DOCUMENTATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for documenting the progress of construction during performance of the Work, including the following:
 - 1. Vendor's schedule.
 - 2. Field condition reports.
- B. Related Sections:
 - 1. Section 013300 "Submittal Procedures" for submitting schedules and reports.

1.3 DEFINITIONS

- A. Activity: A discrete part of a project that can be identified for planning, scheduling, monitoring, and controlling the construction project. Activities included in a schedule consume time and resources.
 - 1. Critical Activity: An activity on the critical path that must start and finish on the planned early start and finish times.
 - 2. Predecessor Activity: An activity that precedes another activity in the network.
 - 3. Successor Activity: An activity that follows another activity in the network.
- B. Cost Loading: The allocation of the schedule of values for the completion of an activity as scheduled. The sum of costs for all activities must equal the total Contract Sum, unless otherwise approved by Architect.
- C. Critical Path: The longest connected chain of interdependent activities through the network schedule that establishes the minimum overall Project duration and contains no float.
- D. Event: The starting or ending point of an activity.
- E. Float: The measure of leeway in starting and completing an activity.
 - 1. Float time is not for the exclusive use or benefit of either Owner or Vendor, but is a jointly owned, expiring Project resource available to both parties as needed to meet schedule milestones and Contract completion date.
 - 2. Free float is the amount of time an activity can be delayed without adversely affecting the early start of the successor activity.
 - 3. Total float is the measure of leeway in starting or completing an activity without adversely affecting the planned Project completion date.
- F. Resource Loading: The allocation of manpower and equipment necessary for the completion of an activity as scheduled.

1.4 INFORMATIONAL SUBMITTALS

- A. Format for Submittals: Submit required submittals in the following format:
 - 1. PDF electronic file.
- B. Vendor's Schedule: Initial schedule, of size required to display entire schedule for entire construction period.
 - 1. Submit a working electronic copy of schedule, using software indicated, and labeled to comply with requirements for submittals. Include type of schedule (initial or updated) and date on label.
- C. Field Condition Reports: Submit at time of discovery of differing conditions.

1.5 COORDINATION

- A. Coordinate Vendor's schedule with the schedule of values, submittal schedule, progress reports, payment requests, and other required schedules and reports.
 - 1. Secure time commitments for performing critical elements of the Work from entities involved.
 - 2. Coordinate each activity in the network with other activities and schedule them in proper sequence.

PART 2 - PRODUCTS

2.1 VENDOR'S SCHEDULE, GENERAL

- A. Time Frame: Extend schedule from date established for the Notice to Proceed to date of Substantial Completion.
 - 1. Contract completion date shall not be changed by submission of a schedule that shows an early completion date, unless specifically authorized by Change Order.
- B. Activities: Treat each story or separate area as a separate numbered activity for each principal element of the Work. Comply with the following:
 - 1. Activity Duration: Define activities so no activity is longer than twenty (20) days, unless specifically allowed by Architect.
 - 2. Procurement Activities: Include procurement process activities for the following long lead items and major items, requiring a cycle of more than sixty (60) days, as separate activities in schedule. Procurement cycle activities include, but are not limited to, submittals, approvals, purchasing, fabrication, and delivery.
 - 3. Submittal Review Time: Include review and resubmittal times indicated in Section 013300 "Submittal Procedures" in schedule. Coordinate submittal review times in Vendor's schedule with submittal schedule.
 - 4. Substantial Completion: Indicate completion in advance of date established for Substantial Completion and allow time for Architect's administrative procedures necessary for certification of Substantial Completion.
 - 5. Punch List and Final Completion: Include not more than thirty (30) days for punch list and final completion.
- C. Constraints: Include constraints and work restrictions indicated in the Contract Documents and as follows in schedule and show how the sequence of the Work is affected.

1. Phasing: Arrange list of activities on schedule by phase.
 2. Work Restrictions: Show the effect of the following items on the schedule:
 - a. Coordination with existing construction.
 - b. Use of premises restrictions.
 - c. Seasonal variations.
 3. Work Stages: Indicate important stages of construction for each major portion of the Work, including, but not limited to, the following:
 - a. Submittals.
 - b. Purchases.
 - c. Fabrication.
 - d. Deliveries.
 - e. Installation.
 - f. Adjusting.
- D. Milestones: Include milestones indicated in the Contract Documents in schedule, including, but not limited to, the Notice to Proceed, Substantial Completion, and final completion.
- E. Cost Correlation: At the head of schedule, provide a cost correlation line, indicating planned and actual costs. On the line, show dollar volume of the Work performed as of dates used for preparation of payment requests.
1. Refer to Section 012900 "Payment Procedures" for cost reporting and payment procedures.
- F. Upcoming Work Summary: Prepare summary report indicating activities scheduled to occur or commence prior to submittal of next schedule update. Summarize the following issues:
1. Unresolved issues.
 2. Unanswered RFIs.
 3. Rejected or unreturned submittals.
 4. Notations on returned submittals.
- G. Recovery Schedule: When periodic update indicates the Work is fourteen (14) or more calendar days behind the current approved schedule, submit a separate recovery schedule indicating means by which Vendor intends to regain compliance with the schedule. Indicate changes to working hours, working days, crew sizes, and equipment required to achieve compliance, and date by which recovery will be accomplished.
- H. Computer Scheduling Software: Prepare schedules using current version of a program that has been developed specifically to manage construction schedules.
- 2.2 VENDOR'S SCHEDULE (GANTT CHART)
- A. Gantt-Chart Schedule: Submit a comprehensive, fully developed, horizontal Gantt-chart-type, Vendor's schedule within seven (7) days of date established for the Notice to Proceed.
- B. Preparation: Indicate each significant construction activity separately. Identify first workday of each week with a continuous vertical line.
1. For construction activities that require three months or longer to complete, indicate an estimated completion percentage in ten percent (10%) increments within time bar.

2.3 REPORTS

- A. Field Condition Reports: Immediately on discovery of a difference between field conditions and the Contract Documents, prepare and submit a detailed report. Submit with a Request for Information. Include a detailed description of the differing conditions, together with recommendations for changing the Contract Documents.

PART 3 - EXECUTION

3.1 VENDOR'S SCHEDULE

- A. Vendor's Schedule Updating: At monthly intervals, update schedule to reflect actual construction progress and activities. Issue schedule one (1) week before each regularly scheduled progress meeting.
 - 1. Revise schedule immediately after each meeting or other activity where revisions have been recognized or made. Issue updated schedule concurrently with the report of each such meeting.
 - 2. Include a report with updated schedule that indicates every change, including, but not limited to, changes in logic, durations, actual starts and finishes, and activity durations.
 - 3. As the Work progresses, indicate final completion percentage for each activity.
- B. Distribution: Distribute copies of approved schedule to Architect, Construction Administrator, Owner, and other parties identified by Vendor with a need-to-know schedule responsibility.
 - 1. When revisions are made, distribute updated schedules to the same parties. Delete parties from distribution when they have completed their assigned portion of the Work and are no longer involved in performance of construction activities.

END OF SECTION 013200

SECTION 013233 - PHOTOGRAPHIC DOCUMENTATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for the following:
 - 1. Periodic construction photographs.
- B. Related Sections:
 - 1. Section 013300 "Submittal Procedures" for submitting photographic documentation.
 - 2. Section 017700 "Closeout Procedures" for submitting photographic documentation as project record documents at Project closeout.

1.3 INFORMATIONAL SUBMITTALS

- A. Key Plan: Submit key plan of Project site and building with notation of vantage points marked for location and direction of each photograph. Indicate elevation or story of construction. Include same information as corresponding photographic documentation.
- B. Digital Photographs: Submit image files within three (3) days of taking photographs.
 - 1. Submit photos by uploading to web-based Project management software site. Include copy of key plan indicating each photograph's location and direction.

1.4 FORMATS AND MEDIA

- A. Digital Photographs: Provide color images in JPG format, produced by a digital camera with minimum sensor size of 12 megapixels, and at an image resolution of not less than 3200 by 2400 pixels. Use flash in low light levels or backlit conditions.
- B. Digital Images: Submit digital media as originally recorded in the digital camera, without alteration, manipulation, editing, or modifications using image-editing software.
- C. Metadata: Record accurate date and time from camera.
- D. File Names: Name media files with date, Project area, and sequential numbering suffix.

1.5 CONSTRUCTION PHOTOGRAPHS

- A. General: Take photographs using the maximum depth of field and in focus.
 - 1. Maintain key plan with each set of construction photographs that identifies each photographic location.

- B. Periodic Construction Photographs: Take eighteen to twenty (18-20) photographs weekly, coinciding with the cutoff date associated with each Application for Payment. Select vantage points to show status of construction and progress since last photographs were taken.
- C. Additional Photographs: Architect may request photographs in addition to periodic photographs specified.
 - 1. In emergency situations, take additional photographs within 24 hours of request.
 - 2. Circumstances that could require additional photographs include, but are not limited to, the following:
 - a. Immediate follow-up when on-site events result in construction damage or losses.
 - b. Substantial Completion of a major phase or component of the Work.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 013233

SECTION 013300 - SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section includes requirements for the submittal schedule and administrative and procedural requirements for submitting Shop Drawings, Product Data, Samples, and other submittals.
- B. Related Sections:
 - 1. Section 012900 "Payment Procedures" for submitting Applications for Payment and the schedule of values.
 - 2. Section 013200 "Construction Progress Documentation" for submitting schedules and reports, including Vendor's schedule.
 - 3. Section 017823 "Operation and Maintenance Data" for submitting operation and maintenance manuals.
 - 4. Section 017839 "Project Record Documents" for submitting record Drawings, record Specifications, and record Product Data.

1.3 DEFINITIONS

- A. Action Submittals: Written and graphic information and physical samples that require Architect's responsive action. Action submittals are those submittals indicated in individual Specification Sections as action submittals.
- B. Informational Submittals: Written and graphic information and physical samples that do not require Architect's responsive action. Submittals may be rejected for not complying with requirements. Informational submittals are those submittals indicated in individual Specification Sections as informational submittals.
- C. File Transfer Protocol (FTP): Communications protocol that enables transfer of files to and from another computer over a network and that serves as the basis for standard Internet protocols. An FTP site is a portion of a network located outside of network firewalls within which internal and external users are able to access files.
- D. Portable Document Format (PDF): An open standard file format licensed by Adobe Systems used for representing documents in a device-independent and display resolution-independent fixed-layout document format.

1.4 ACTION SUBMITTALS

- A. Submittal Schedule: Submit a schedule of submittals, arranged in chronological order by dates required by construction schedule. Include time required for review, ordering, manufacturing, fabrication, and delivery when establishing dates. Include additional time required for making corrections or modifications to submittals noted by the Architect and additional time for handling and reviewing submittals required by those corrections.

1. Coordinate submittal schedule with the schedule of values and Vendor's schedule.
2. Submit concurrently with Vendor's schedule. Include submittals required during the first sixty (60) days of construction. List those submittals required to maintain orderly progress of the Work and those required early because of long lead time for manufacture or fabrication.
3. Format: Arrange the following information in a tabular format:
 - a. Scheduled date for first submittal.
 - b. Specification Section number and title.
 - c. Submittal Category: Action, informational.
 - d. Description of the Work covered.
 - e. Scheduled date for Architect's final release or approval.
 - f. Scheduled dates for purchasing.
 - g. Scheduled dates for installation.

1.5 SUBMITTAL ADMINISTRATIVE REQUIREMENTS

- A. Architect's Digital Data Files: Electronic copies of the Building Information Model (BIM) of the Contract Drawings will **not** be provided by Architect for Vendor's use in preparing submittals unless requested and Architect's user agreement properly completed.
- B. Coordination: Coordinate preparation and processing of submittals with performance of construction activities.
 1. Coordinate each submittal with fabrication, purchasing, delivery, other submittals, and related activities that require sequential activity.
 2. Submit all submittal items required for each Specification Section concurrently unless partial submittals for portions of the Work are indicated on approved submittal schedule.
 3. Submit action submittals and informational submittals required by the same Specification Section as separate packages under separate transmittals.
 4. Coordinate transmittal of different types of submittals for related parts of the Work so processing will not be delayed because of need to review submittals concurrently for coordination.
 - a. Architect reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.
- C. Processing Time: Allow time for submittal review, including time for resubmittals, as follows. Time for review shall commence on Architect's receipt of submittal. No extension of the Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing, including resubmittals.
 1. Initial Review: Allow seven (7) days for initial review of each submittal. Allow additional time if coordination with subsequent submittals is required. Architect will advise Vendor when a submittal being processed must be delayed for coordination.
 2. Resubmittal Review: Allow five (5) days for review of each resubmittal.
 3. Sequential Review: Where sequential review of submittals by Architect's consultants, Owner, or other parties is indicated, allow seven (7) days for initial review of each submittal.
- D. Identification and Information: Identify and incorporate information in each electronic submittal file as follows:
 1. Assemble complete submittal package into a single indexed file with links enabling navigation to each item.
 2. Name file with submittal number or other unique identifier, including revision identifier.

- a. File name shall use project identifier and Specification Section number followed by a decimal point and then a sequential number (e.g., LNHS-061000.01). Resubmittals shall include an alphabetic suffix after another decimal point (e.g., LNHS-061000.01.A).
3. Provide means for insertion to permanently record Vendor's review and approval markings and action taken by Architect.
4. Include the following information on an inserted cover sheet:
 - a. Project name.
 - b. Date.
 - c. Name and address of Architect.
 - d. Name of Vendor.
 - e. Number and title of appropriate Specification Section.
 - f. Drawing number and detail references, as appropriate.
 - g. Location(s) where product is to be installed, as appropriate.
 - h. Related physical samples submitted directly.
 - i. Other necessary identification.
5. Include the following information as keywords in the electronic file metadata:
 - a. Project name.
 - b. Number and title of appropriate Specification Section.
 - c. Manufacturer name.
 - d. Product name.
- E. Options: Identify options requiring selection by the Architect.
- F. Deviations: Identify deviations from the Contract Documents on submittals.
- G. Transmittal: Assemble each submittal individually and appropriately for transmittal and handling. Transmit each submittal using a transmittal form. Architect will return submittals, without review received from sources other than Vendor.
 1. Transmittal Form: Provide locations on form for the following information:
 - a. Project name.
 - b. Date.
 - c. Destination (To:).
 - d. Source (From:).
 - e. Category and type of submittal.
 - f. Submittal purpose and description.
 - g. Specification Section number and title.
 - h. Indication of full or partial submittal.
 - i. Drawing number and detail references, as appropriate.
 - j. Transmittal number, numbered consecutively.
 - k. Submittal and transmittal distribution record.
 - l. Remarks.
 - m. Signature of transmitter.
 2. On an attached separate sheet, prepared on Vendor's letterhead, record relevant information, requests for data, revisions other than those requested by Architect on previous submittals, and deviations from requirements in the Contract Documents, including minor variations and limitations. Include same identification information as related submittal.

- H. Resubmittals: Make resubmittals in same form and number of copies as initial submittal.
 - 1. Note date and content of previous submittal.
 - 2. Note date and content of revision in label or title block and clearly indicate extent of revision.
 - 3. Resubmit submittals until they are marked with approval notation from Architect's action stamp.
- I. Distribution: Furnish copies of final submittals to fabricators, installers, authorities having jurisdiction, and others as necessary for performance of construction activities. Show distribution on transmittal forms.
- J. Use for Construction: Use only final submittals that are marked with approval notation from Architect's action stamp.

PART 2 - PRODUCTS

2.1 SUBMITTAL PROCEDURES

- A. General Submittal Procedure Requirements: Prepare and submit submittals required by individual Specification Sections. Types of submittals are indicated in individual Specification Sections.
 - 1. Submit electronic submittals via email as PDF electronic files.
 - a. Architect will return annotated file. Annotate and retain one (1) copy of file as an electronic Project record document file.
 - 2. Closeout Submittals and Maintenance Material Submittals: Comply with requirements specified in Section 017700 "Closeout Procedures."
- 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 published 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 catalog cuts.
 - b. Manufacturer's product specifications.
 - c. Standard color charts.
 - d. Statement of compliance with specified referenced standards.
 - e. Notation of coordination requirements.
 - f. Availability and delivery time information.
 - 4. For equipment, include the following in addition to the above, as applicable:
 - a. Wiring diagrams showing factory-installed wiring.
 - b. Printed performance curves.
 - c. Operational range diagrams.
 - d. Clearances required to other construction, if not indicated on accompanying Shop Drawings.
 - 5. Submit Product Data before or concurrent with Samples.

- C. Shop Drawings: Prepare Project-specific information, drawn accurately to scale. Do not base Shop Drawings on reproductions of the Contract Documents or standard printed data.
1. Preparation: Fully illustrate requirements in the Contract Documents. Include the following information, as applicable:
 - a. Identification of products.
 - b. Schedules.
 - c. Compliance with specified standards.
 - d. Notation of coordination requirements.
 - e. Notation of dimensions established by field measurement.
 - f. Relationship and attachment to adjoining construction clearly indicated.
 - g. Seal and signature of professional engineer if specified.
 2. Sheet Size: Except for templates, patterns, and similar full-size drawings, submit Shop Drawings on sheets at least 8½ by 11 inches but no larger than 30 by 42 inches.
- D. Samples: Submit Samples for review of kind, color, pattern, and texture for a check of these characteristics with other elements and for a comparison of these characteristics between submittal and actual component as delivered and installed.
1. Transmit Samples that contain multiple, related components such as accessories together in one (1) submittal package.
 2. Identification: Attach label on unexposed side of Samples that includes the following:
 - a. Generic description of Sample.
 - b. Product name and name of manufacturer.
 - c. Sample source.
 - d. Number and title of applicable Specification Section.
 3. Disposition: Maintain sets of approved Samples at Project site, available for quality-control comparisons throughout the course of construction activity. Sample sets may be used to determine final acceptance of construction associated with each set.
 - a. Samples that may be incorporated into the Work are indicated in individual Specification Sections. Such Samples must be in an undamaged condition at time of use.
 - b. Samples not incorporated into the Work, or otherwise designated as Owner's property, are the property of Vendor.
- E. Product Schedule: As required in individual Specification Sections, prepare a written summary indicating types of products required for the Work and their intended location. Include the following information in tabular form:
1. Type of product. Include unique identifier for each product indicated in the Contract Documents.
 2. Manufacturer and product name, and model number if applicable.
 3. Number and name of room or space.
 4. Location within room or space.
- F. Vendor's Schedule: Comply with requirements specified in Section 013200 "Construction Progress Documentation."
- G. Application for Payment: Comply with requirements specified in Section 012900 "Payment Procedures."

- H. Schedule of Values: Comply with requirements specified in Section 012900 "Payment Procedures."
- I. Qualification Data: Prepare written information that demonstrates capabilities and experience of firm or person. Include lists of completed projects with project names and addresses, contact information of Architects and Owners, and other information specified.
- J. 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.
- K. Product Certificates: Submit written statements on manufacturer's letterhead certifying that product complies with requirements in the Contract Documents.
- L. Product Test Reports: Submit written reports indicating current product produced by manufacturer complies with requirements in the Contract Documents. Base reports on evaluation of tests performed by manufacturer and witnessed by a qualified testing agency, or on comprehensive tests performed by a qualified testing agency.
- M. Maintenance Data: Comply with requirements specified in Section 017823 "Operation and Maintenance Data."

PART 3 - EXECUTION

3.1 VENDOR'S REVIEW

- A. Action and Informational Submittals: Review each submittal and check for coordination with other Work of the Contract and for compliance with the Contract Documents. Note corrections and field dimensions. Mark with reviewed stamp before submitting to Architect.
- B. Project Closeout and Maintenance/Material Submittals: Refer to requirements in Section 017700 "Closeout Procedures."
- C. Approval Stamp: Stamp each submittal with a uniform, review stamp. Include Project name and location, submittal number, Specification Section title and number, name of reviewer, date of Vendor's approval, and statement certifying that submittal has been reviewed, checked, and approved for compliance with the Contract Documents.

3.2 ARCHITECT'S ACTION

- A. General: Architect will not review submittals that do not bear Vendor's approval stamp and will return them without action.
- B. Action Submittals: Architect will review each submittal, make marks to indicate corrections or modifications required, and return it. Architect will stamp each submittal with an action stamp and will mark stamp appropriately to indicate action.
- C. Informational Submittals: Architect will review each submittal and will not return it, or will return it if it does not comply with requirements.
- D. Partial submittals prepared for a portion of the Work will be reviewed when use of partial submittals has received prior approval from Architect.
- E. Incomplete submittals are not acceptable, will be considered nonresponsive, and will be returned without review.

- F. Submittals not required by the Contract Documents may not be reviewed and may be discarded.

END OF SECTION 013300

SECTION 014200 - REFERENCES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 DEFINITIONS

- A. General: Basic Contract definitions are included in the Conditions of the Contract.
- B. "Approved": When used to convey Architect's action on Vendor's submittals, applications, and requests, "approved" is limited to Architect's duties and responsibilities as stated in the Conditions of the Contract.
- C. "As Required": As required to produce a fully completed project or result to the satisfaction of the Architect.
- D. "Directed": A command or instruction by Architect. Other terms including "requested," "authorized," "selected," "required," and "permitted" have the same meaning as "directed."
- E. "Indicated": Requirements expressed by graphic representations or in written form on Drawings, in Specifications, and in other Contract Documents. Other terms including "shown," "noted," "scheduled," and "specified" have the same meaning as "indicated."
- F. "Regulations": Laws, ordinances, statutes, and lawful orders issued by authorities having jurisdiction, and rules, conventions, and agreements within the construction industry that control performance of the Work.
- G. "Furnish": Supply and deliver to Project site, ready for unloading, unpacking, assembly, installation, and similar operations.
- H. "Install": Unload, temporarily store, unpack, assemble, erect, place, anchor, apply, work to dimension, finish, cure, protect, clean, and similar operations at Project site.
- I. "Provide": Furnish and install, complete and ready for the intended use.
- J. "Project Site": Space available for performing construction activities. The extent of Project site is shown on Drawings and may or may not be identical with the description of the land on which Project is to be built.

1.3 INDUSTRY STANDARDS

- A. Applicability of Standards: Unless the Contract Documents include more stringent requirements, applicable construction industry standards have the same force and effect as if bound or copied directly into the Contract Documents to the extent referenced. Such standards are made a part of the Contract Documents by reference.
- B. Publication Dates: Comply with standards in effect as of date of the Contract Documents unless otherwise indicated.

1. For standards referenced by applicable building codes, comply with dates of standards as listed in building codes.
- C. Copies of Standards: Each entity engaged in construction on Project should be familiar with industry standards applicable to its construction activity. Copies of applicable standards are not bound with the Contract Documents.
1. Where copies of standards are needed to perform a required construction activity, obtain copies directly from publication source.

1.4 ABBREVIATIONS AND ACRONYMS

- A. Industry Organizations: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the entities indicated in Gale's "Encyclopedia of Associations: National Organizations of the U.S." or in Columbia Books' "National Trade & Professional Associations of the United States."

1. AABC - Associated Air Balance Council; www.aabc.com.
2. AAMA - American Architectural Manufacturers Association; www.aamanet.org.
3. AAPFCO - Association of American Plant Food Control Officials; www.aapfco.org.
4. AASHTO - American Association of State Highway and Transportation Officials; www.transportation.org.
5. AATCC - American Association of Textile Chemists and Colorists; www.aatcc.org.
6. ABMA - American Bearing Manufacturers Association; www.americanbearings.org.
7. ABMA - American Boiler Manufacturers Association; www.abma.com.
8. ACI - American Concrete Institute; (Formerly: ACI International); www.concrete.org.
9. ACPA - American Concrete Pipe Association; www.concrete-pipe.org.
10. AEIC - Association of Edison Illuminating Companies, Inc. (The); www.aeic.org.
11. AF&PA - American Forest & Paper Association; www.afandpa.org.
12. AGA - American Gas Association; www.aga.org.
13. AHAM - Association of Home Appliance Manufacturers; www.aham.org.
14. AHRI - Air-Conditioning, Heating, and Refrigeration Institute (The); www.ahrinet.org.
15. AI - Asphalt Institute; www.asphaltinstitute.org.
16. AIA - American Institute of Architects (The); www.aia.org.
17. AISC - American Institute of Steel Construction; www.aisc.org.
18. AISI - American Iron and Steel Institute; www.steel.org.
19. AITC - American Institute of Timber Construction; www.aitc-glulam.org.
20. AMCA - Air Movement and Control Association International, Inc.; www.amca.org.
21. ANSI - American National Standards Institute; www.ansi.org.
22. AOSA - Association of Official Seed Analysts, Inc.; www.aosaseed.com.
23. APA - APA - The Engineered Wood Association; www.apawood.org.
24. APA - Architectural Precast Association; www.archprecast.org.
25. API - American Petroleum Institute; www.api.org.
26. ARI - Air-Conditioning & Refrigeration Institute; (See AHRI).
27. ARI - American Refrigeration Institute; (See AHRI).
28. ARMA - Asphalt Roofing Manufacturers Association; www.asphaltroofing.org.
29. ASCE - American Society of Civil Engineers; www.asce.org.
30. ASCE/SEI - American Society of Civil Engineers/Structural Engineering Institute; (See ASCE).
31. ASHRAE - American Society of Heating, Refrigerating and Air-Conditioning Engineers; www.ashrae.org.
32. ASME - ASME International; (American Society of Mechanical Engineers); www.asme.org.
33. ASSE - American Society of Sanitary Engineering; www.asse-plumbing.org.
34. ASSP - American Society of Safety Professionals (The); www.assp.org.
35. ASTM - ASTM International; www.astm.org.
36. ATIS - Alliance for Telecommunications Industry Solutions; www.atis.org.

37. AVIXA - Audiovisual and Integrated Experience Association; (Formerly: Infocomm International); www.soundandcommunications.com.
38. AWEA - American Wind Energy Association; www.awea.org.
39. AWI - Architectural Woodwork Institute; www.awinet.org.
40. AWMAC - Architectural Woodwork Manufacturers Association of Canada; www.awmac.com.
41. AWPFA - American Wood Protection Association; www.awpa.com.
42. AWS - American Welding Society; www.aws.org.
43. AWWA - American Water Works Association; www.awwa.org.
44. BHMA - Builders Hardware Manufacturers Association; www.buildershardware.com.
45. BIA - Brick Industry Association (The); www.gobrick.com.
46. BICSI - BICSI, Inc.; www.bicsi.org.
47. BIFMA - BIFMA International; (Business and Institutional Furniture Manufacturer's Association); www.bifma.org.
48. BISSC - Baking Industry Sanitation Standards Committee; www.bissc.org.
49. BWF - Badminton World Federation; (Formerly: International Badminton Federation); www.bissc.org.
50. CDA - Copper Development Association; www.copper.org.
51. CE - Conformite Europeenne; www.ec.europa.eu/growth/single-market/ce-marking.
52. CEA - Canadian Electricity Association; www.electricity.ca.
53. CFFA - Chemical Fabrics and Film Association, Inc.; www.chemicalfabricsandfilm.com.
54. CFSEI - Cold-Formed Steel Engineers Institute; www.cfsei.org.
55. CGA - Compressed Gas Association; www.cganet.com.
56. CIMA - Cellulose Insulation Manufacturers Association; www.cellulose.org.
57. CISCA - Ceilings & Interior Systems Construction Association; www.cisca.org.
58. CISPI - Cast Iron Soil Pipe Institute; www.cispi.org.
59. CLFMI - Chain Link Fence Manufacturers Institute; www.chainlinkinfo.org.
60. CPA - Composite Panel Association; www.compositepanel.org.
61. CRI - Carpet and Rug Institute (The); www.carpet-rug.org.
62. CRRC - Cool Roof Rating Council; www.coolroofs.org.
63. CRSI - Concrete Reinforcing Steel Institute; www.crsi.org.
64. CSA - CSA Group; www.csa-group.org.
65. CSI - Construction Specifications Institute (The); www.csiresources.org.
66. CSSB - Cedar Shake & Shingle Bureau; www.cedarbureau.org.
67. CTA - Consumer Technology Association; www.cta.tech.
68. CTI - Cooling Technology Institute; (Formerly: Cooling Tower Institute); www.coolingtechnology.org.
69. CWC - Composite Wood Council; (See CPA).
70. DASMA - Door and Access Systems Manufacturers Association; www.dasma.com.
71. DHA - Decorative Hardwoods Association; (Formerly: Hardwood Plywood & Veneer Association); www.decorativehardwoods.org.
72. DHI - Door and Hardware Institute; www.dhi.org.
73. ECA - Electronic Components Association; (See ECIA).
74. ECAMA - Electronic Components Assemblies & Materials Association; (See ECIA).
75. ECIA - Electronic Components Industry Association; www.ecianow.org.
76. EIA - Electronic Industries Alliance; (See TIA).
77. EIMA - EIFS Industry Members Association; www.eima.com.
78. EJMA - Expansion Joint Manufacturers Association, Inc.; www.ejma.org.
79. EOS/ESD Association; (Electrostatic Discharge Association); www.esda.org.
80. ESTA - Entertainment Services and Technology Association; (See PLASA).
81. ETL - Intertek (See Intertek); www.intertek.com.
82. EVO - Efficiency Valuation Organization; www.evo-world.org.
83. FCI - Fluid Controls Institute; www.fluidcontrolsintstitute.org.
84. FIBA - Federation Internationale de Basketball; (The International Basketball Federation); www.fiba.com.

85. FIVB - Federation Internationale de Volleyball; (The International Volleyball Federation); www.fivb.org.
86. FM Approvals - FM Approvals LLC; www.fmglobal.com.
87. FM Global - FM Global; (Formerly: FMG - FM Global); www.fmglobal.com.
88. FRSA - Florida Roofing, Sheet Metal Contractors Association, Inc.; www.floridarroof.com.
89. FSA - Fluid Sealing Association; www.fluidsealing.com.
90. FSC - Forest Stewardship Council U.S.; www.fscus.org.
91. GA - Gypsum Association; www.gypsum.org.
92. GANA - Glass Association of North America; (See NGA).
93. GS - Green Seal; www.greenseal.org.
94. HI - Hydraulic Institute; www.pumps.org.
95. HI/GAMA - Hydronics Institute/Gas Appliance Manufacturers Association; (See AHRI).
96. HMMA - Hollow Metal Manufacturers Association; (See NAAMM).
97. HPVA - Hardwood Plywood & Veneer Association; (See DHA).
98. HPW - H. P. White Laboratory, Inc.; www.hpwhite.com.
99. IAPSC - International Association of Professional Security Consultants; www.iapsc.org.
100. IAS - International Accreditation Service; www.iasonline.org.
101. ICBO - International Conference of Building Officials; (See ICC).
102. ICC - International Code Council; www.iccsafe.org.
103. ICEA - Insulated Cable Engineers Association, Inc.; www.icea.net.
104. ICPA - International Cast Polymer Association; www.theicpa.com.
105. ICRI - International Concrete Repair Institute, Inc.; www.icri.org.
106. IEC - International Electrotechnical Commission; www.iec.ch.
107. IEEE - Institute of Electrical and Electronics Engineers, Inc. (The); www.ieee.org.
108. IES - Illuminating Engineering Society; (Formerly: Illuminating Engineering Society of North America); www.ies.org.
109. IESNA - Illuminating Engineering Society of North America; (See IES).
110. IEST - Institute of Environmental Sciences and Technology; www.iest.org.
111. IGMA - Insulating Glass Manufacturers Alliance; www.igmaonline.org.
112. IGSHPA - International Ground Source Heat Pump Association; www.igshpa.org.
113. II - Infocomm International; (See AVIXA).
114. ILI - Indiana Limestone Institute of America, Inc.; www.iliai.com.
115. Intertek - Intertek Group; (Formerly: ETL SEMCO; Intertek Testing Service NA); www.intertek.com.
116. ISA - International Society of Automation (The); (Formerly: Instrumentation, Systems, and Automation Society); www.isa.org.
117. ISAS - Instrumentation, Systems, and Automation Society (The); (See ISA).
118. ISFA - International Surface Fabricators Association; (Formerly: International Solid Surface Fabricators Association); www.isfanow.org.
119. ISO - International Organization for Standardization; www.iso.org.
120. ISSFA - International Solid Surface Fabricators Association; (See ISFA).
121. ITU - International Telecommunication Union; www.itu.int.
122. KCMA - Kitchen Cabinet Manufacturers Association; www.kcma.org.
123. LMA - Laminating Materials Association; (See CPA).
124. LPI - Lightning Protection Institute; www.lightning.org.
125. MBMA - Metal Building Manufacturers Association; www.mbma.com.
126. MCA - Metal Construction Association; www.metalconstruction.org.
127. MFMA - Maple Flooring Manufacturers Association, Inc.; www.maplefloor.org.
128. MFMA - Metal Framing Manufacturers Association, Inc.; www.metalframingmfg.org.
129. MHI - Material Handling Industry of America; www.mhia.org.
130. MIA - Marble Institute of America; (See NSI).
131. MMPA - Moulding & Millwork Producers Association; www.wmmpa.com.
132. MPI - Master Painters Institute; www.paintinfo.com.
133. MSS - Manufacturers Standardization Society of The Valve and Fittings Industry Inc.; www.mss-hq.org.
134. NAAMM - National Association of Architectural Metal Manufacturers; www.naamm.org.

135. NACE - NACE International; (National Association of Corrosion Engineers International); www.nace.org.
136. NADCA - National Air Duct Cleaners Association; www.nadca.com.
137. NAIMA - North American Insulation Manufacturers Association; www.naima.org.
138. NALP - National Association of Landscape Professionals; www.landscapeprofessionals.org.
139. NBGQA - National Building Granite Quarries Association, Inc.; www.nbgqa.com.
140. NBI - New Buildings Institute; www.newbuildings.org.
141. NCAA - National Collegiate Athletic Association (The); www.ncaa.org.
142. NCMA - National Concrete Masonry Association; www.ncma.org.
143. NEBB - National Environmental Balancing Bureau; www.nebb.org.
144. NECA - National Electrical Contractors Association; www.necanet.org.
145. NeLMA - Northeastern Lumber Manufacturers Association; www.nelma.org.
146. NEMA - National Electrical Manufacturers Association; www.nema.org.
147. NETA - InterNational Electrical Testing Association; www.netaworld.org.
148. NFHS - National Federation of State High School Associations; www.nfhs.org.
149. NFPA - National Fire Protection Association; www.nfpa.org.
150. NFPA - NFPA International; (See NFPA).
151. NFRC - National Fenestration Rating Council; www.nfrc.org.
152. NGA - National Glass Association (The); (Formerly: Glass Association of North America); www.glass.org.
153. NHLA - National Hardwood Lumber Association; www.nhla.com.
154. NLGA - National Lumber Grades Authority; www.nlga.org.
155. NOFMA - National Oak Flooring Manufacturers Association; (See NWFA).
156. NOMMA - National Ornamental & Miscellaneous Metals Association; www.nomma.org.
157. NRCA - National Roofing Contractors Association; www.nrca.net.
158. NRMCA - National Ready Mixed Concrete Association; www.nrmca.org.
159. NSF - NSF International; www.nsf.org.
160. NSI - National Stone Institute; (Formerly: Marble Institute of America); www.naturalstoneinstitute.org.
161. NSPE - National Society of Professional Engineers; www.nspe.org.
162. NSSGA - National Stone, Sand & Gravel Association; www.nssga.org.
163. NTMA - National Terrazzo & Mosaic Association, Inc. (The); www.ntma.com.
164. NWFA - National Wood Flooring Association; www.nwfa.org.
165. NWRA - National Waste & Recycling Association; www.wasterecycling.org.
166. PCI - Precast/Prestressed Concrete Institute; www.pci.org.
167. PDI - Plumbing & Drainage Institute; www.pdionline.org.
168. PLASA - PLASA; (Formerly: ESTA - Entertainment Services and Technology Association); www.plasa.org.
169. RCSC - Research Council on Structural Connections; www.boltcouncil.org.
170. RFCI - Resilient Floor Covering Institute; www.rfci.com.
171. RIS - Redwood Inspection Service; www.redwoodinspection.com.
172. SAE - SAE International; www.sae.org.
173. SCTE - Society of Cable Telecommunications Engineers; www.scte.org.
174. SDI - Steel Deck Institute; www.sdi.org.
175. SDI - Steel Door Institute; www.steeldoor.org.
176. SEFA - Scientific Equipment and Furniture Association (The); www.sefalabs.com.
177. SEI/ASCE - Structural Engineering Institute/American Society of Civil Engineers; (See ASCE).
178. SIA - Security Industry Association; www.siaonline.org.
179. SJI - Steel Joist Institute; www.steeljoist.org.
180. SMA - Screen Manufacturers Association; www.smainfo.org.
181. SMACNA - Sheet Metal and Air Conditioning Contractors' National Association; www.smacna.org.
182. SMPTE - Society of Motion Picture and Television Engineers; www.smpte.org.
183. SPFA - Spray Polyurethane Foam Alliance; www.sprayfoam.org.
184. SPIB - Southern Pine Inspection Bureau; www.spib.org.

185. SPRI - Single Ply Roofing Industry; www.spri.org.
186. SRCC - Solar Rating & Certification Corporation; www.solar-rating.org.
187. SSINA - Specialty Steel Industry of North America; www.ssina.com.
188. SSPC - SSPC: The Society for Protective Coatings; www.sspc.org.
189. STI - Steel Tank Institute; www.steeltank.com.
190. SWI - Steel Window Institute; www.steelwindows.com.
191. SWPA - Submersible Wastewater Pump Association; www.swpa.org.
192. TCA - Tilt-Up Concrete Association; www.tilt-up.org.
193. TCNA - Tile Council of North America, Inc.; www.tileusa.com.
194. TEMA - Tubular Exchanger Manufacturers Association, Inc.; www.tema.org.
195. TIA - Telecommunications Industry Association (The); (Formerly: TIA/EIA - Telecommunications Industry Association/Electronic Industries Alliance); www.tiaonline.org.
196. TIA/EIA - Telecommunications Industry Association/Electronic Industries Alliance; (See TIA).
197. TMS - The Masonry Society; www.masonrysociety.org.
198. TPI - Truss Plate Institute; www.tpinst.org.
199. TPI - Turfgrass Producers International; www.turfgrasssod.org.
200. TRI - Tile Roofing Institute; www.tilerroofing.org.
201. UL - Underwriters Laboratories Inc.; www.ul.com.
202. UNI - Uni-Bell PVC Pipe Association; www.uni-bell.org.
203. USAV - USA Volleyball; www.usavolleyball.org.
204. USGBC - U.S. Green Building Council; www.usgbc.org.
205. USITT - United States Institute for Theatre Technology, Inc.; www.usitt.org.
206. WA - Wallcoverings Association; www.wallcoverings.org.
207. WCLIB - West Coast Lumber Inspection Bureau; www.wclib.org.
208. WCMA - Window Covering Manufacturers Association; www.wcmanet.org.
209. WDMA - Window & Door Manufacturers Association; www.wdma.com.
210. WI - Woodwork Institute; www.wicnet.org.
211. WSRCA - Western States Roofing Contractors Association; www.wsrca.com.
212. WWPA - Western Wood Products Association; <http://www.wwpa.org>.

B. Code Agencies: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the entities in the following list. This information is believed to be accurate as of the date of the Contract Documents.

1. IAPMO - International Association of Plumbing and Mechanical Officials; www.iapmo.org.
2. ICC - International Code Council; www.iccsafe.org.
3. ICC-ES - ICC Evaluation Service, LLC; www.icc-es.org.

C. Federal Government Agencies: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the entities in the following list. Information is subject to change and is up to date as of the date of the Contract Documents.

1. COE - Army Corps of Engineers; www.usace.army.mil.
2. CPSC - Consumer Product Safety Commission; www.cpsc.gov.
3. DOC - Department of Commerce; National Institute of Standards and Technology; www.nist.gov.
4. DOD - Department of Defense; www.quicksearch.dla.mil.
5. DOE - Department of Energy; www.energy.gov.
6. EPA - Environmental Protection Agency; www.epa.gov.
7. FAA - Federal Aviation Administration; www.faa.gov.
8. FG - Federal Government Publications; www.gpo.gov/fdsys.
9. GSA - General Services Administration; www.gsa.gov.
10. HUD - Department of Housing and Urban Development; www.hud.gov.
11. LBL - Lawrence Berkeley National Laboratory; Environmental Energy Technologies Division; www.eetd.lbl.gov.
12. OSHA - Occupational Safety & Health Administration; www.osha.gov.

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13. SD - Department of State; www.state.gov.
 14. TRB - Transportation Research Board; National Cooperative Highway Research Program; The National Academies; www.trb.org.
 15. USDA - Department of Agriculture; Agriculture Research Service; U.S. Salinity Laboratory; www.ars.usda.gov.
 16. USDA - Department of Agriculture; Rural Utilities Service; www.usda.gov.
 17. USDOJ - Department of Justice; Office of Justice Programs; National Institute of Justice; www.ojp.usdoj.gov.
 18. USP - U.S. Pharmacopeial Convention; www.usp.org.
 19. USPS - United States Postal Service; www.usps.com.
- D. Standards and Regulations: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the standards and regulations in the following list. This information is subject to change and is believed to be accurate as of the date of the Contract Documents.
1. CFR - Code of Federal Regulations; Available from Government Printing Office; www.govinfo.gov.
 2. DOD - Department of Defense; Military Specifications and Standards; Available from DLA Document Services; www.quicksearch.dla.mil.
 3. DSCC - Defense Supply Center Columbus; (See FS).
 4. FED-STD - Federal Standard; (See FS).
 5. FS - Federal Specification; Available from DLA Document Services; www.quicksearch.dla.mil.
 - a. Available from Defense Standardization Program; www.dsp.dla.mil.
 - b. Available from General Services Administration; www.gsa.gov.
 - c. Available from National Institute of Building Sciences/Whole Building Design Guide; www.wbdg.org.
 6. MILSPEC - Military Specification and Standards; (See DOD).
 7. USAB - United States Access Board; www.access-board.gov.
 8. USATBCB - U.S. Architectural & Transportation Barriers Compliance Board; (See USAB).

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 014200

SECTION 016000 - PRODUCT REQUIREMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for selection of products for use in Project; product delivery, storage, and handling; manufacturers' standard warranties on products; special warranties; and comparable products.
- B. Related Sections:
 - 1. Section 012500 "Substitution Procedures" for requests for substitutions.
 - 2. Section 014200 "References" for applicable industry standards for products specified.

1.3 DEFINITIONS

- A. Products: Items obtained for incorporating into the Work, whether purchased for Project or taken from previously purchased stock. The term "product" includes the terms "material," "equipment," "system," and terms of similar intent.
 - 1. Named Products: Items identified by manufacturer's product name, including make or model number or other designation shown or listed in manufacturer's published product literature, that is current as of date of the Contract Documents.
 - 2. New Products: Items that have not previously been incorporated into another project or facility. Products salvaged or recycled from other projects are not considered new products.
 - 3. Comparable Product: Product that is demonstrated and approved through submittal process to have the indicated qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics that equal or exceed those of specified product.
- B. Basis-of-Design Product Specification: A specification in which a specific manufacturer's product is named and accompanied by the words "basis-of-design product," including make or model number or other designation, to establish the significant qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics for purposes of evaluating comparable products of additional manufacturers named in the specification.

1.4 ACTION SUBMITTALS

- A. Comparable Product Requests: Submit request for consideration of each comparable product. Identify product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles.
 - 1. Include data to indicate compliance with the requirements specified in "Comparable Products" Article.
 - 2. Architect's Action: If necessary, Architect will request additional information or documentation for evaluation within one (1) week of receipt of a comparable product request. Architect will notify Vendor of approval or rejection of proposed comparable

product request within seven (7) days of receipt of request, or seven (7) days of receipt of additional information or documentation, whichever is later.

- a. Form of Approval: As specified in Section 013300 "Submittal Procedures."
- b. Use product specified if Architect does not issue a decision on use of a comparable product request within time allocated.

- B. Basis-of-Design Product Specification Submittal: Comply with requirements in Section 013300 "Submittal Procedures." Show compliance with requirements.

1.5 QUALITY ASSURANCE

- A. Compatibility of Options: If Vendor is given option of selecting between two (2) or more products for use on Project, select product compatible with products previously selected, even if previously selected products were also options.

1.6 PRODUCT DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store, and handle products using means and methods that will prevent damage, deterioration, and loss, including theft and vandalism. Comply with manufacturer's written instructions.

- B. Delivery and Handling:

1. Coordinate delivery with installation time to ensure minimum holding time for items that are easily damaged or sensitive to deterioration, theft, and other losses.
2. 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.
3. Inspect products on delivery to determine compliance with the Contract Documents and to determine that products are undamaged and properly protected.

- C. Storage:

1. Store products to allow for inspection and measurement of quantity or counting of units.
2. Store materials in a manner that will not endanger Project structure.
3. Store products that are subject to damage by the elements, under cover in a weathertight enclosure above ground, with ventilation adequate to prevent condensation.
4. Comply with product manufacturer's written instructions for temperature, humidity, ventilation, and weather-protection requirements for storage.
5. Protect stored products from damage and liquids from freezing.

1.7 PRODUCT WARRANTIES

- A. Warranties specified in other Sections shall be in addition to, and run concurrent with, other warranties required by the Contract Documents. Manufacturer's disclaimers and limitations on product warranties do not relieve Vendor of obligations under requirements of the Contract Documents.

1. Manufacturer's Warranty: Written warranty furnished by individual manufacturer for a particular product and specifically endorsed by manufacturer to Owner.
2. Special Warranty: Written warranty required by the Contract Documents to provide specific rights for Owner.

- B. Special Warranties: Prepare a written document that contains appropriate terms and identification, ready for execution.
 - 1. Manufacturer's Standard Form: Modified to include Project-specific information and properly executed.
 - 2. Specified Form: When specified forms are included with the Specifications, prepare a written document using indicated form properly executed.
 - 3. Refer to Divisions 02 through 49. Sections for specific content requirements and particular requirements for submitting special warranties.
- C. **Warranties are to commence at Substantial Completion of each phase of this project.**
- D. Submittal Time: Comply with requirements in Section 017700 "Closeout Procedures."

PART 2 - PRODUCTS

2.1 PRODUCT SELECTION PROCEDURES

- A. General Product Requirements: Provide products that comply with the Contract Documents, are undamaged and, unless otherwise indicated, are new at time of installation.
 - 1. Provide products complete with accessories, trim, finish, fasteners, and other items needed for a complete installation and indicated use and effect.
 - 2. Standard Products: If available, and unless custom products or nonstandard options are specified, provide standard products of types that have been produced and used successfully in similar situations on other projects.
 - 3. Owner reserves the right to limit selection to products with warranties not in conflict with requirements of the Contract Documents.
 - 4. Where products are accompanied by the term "as selected," Architect will make selection.
 - 5. Descriptive, performance, and reference standard requirements in the Specifications establish salient characteristics of products.
 - 6. Or Equal: For products specified by name and accompanied by the term "or equal," or "or approved equal," or "or approved," comply with requirements in "Comparable Products" Article to obtain approval for use of an unnamed product.
- B. Product Selection Procedures:
 - 1. Product: Where Specifications name a single manufacturer and product, provide the named product that complies with requirements. Comparable products or substitutions for Vendor's convenience will not be considered.
 - 2. Manufacturer/Source: Where Specifications name a single manufacturer or source, provide a product by the named manufacturer or source that complies with requirements. Comparable products or substitutions for Vendor's convenience will not be considered.
 - 3. Products:
 - a. Restricted List: Where Specifications include a list of names of both manufacturers and products, provide one (1) of the products listed that complies with requirements. Comparable products or substitutions for Vendor's convenience will be considered, unless otherwise indicated.
 - b. Non-Restricted List: Where Specifications include a list of names of both available manufacturers and products, provide one (1) of the products listed, or an unnamed product, that complies with requirements. Comply with requirements in "Comparable Products" Article for consideration of an unnamed product.

4. Manufacturers:
 - a. Restricted List: Where Specifications include a list of manufacturers' names, provide a product by one (1) of the manufacturers listed that complies with requirements. Comparable products or substitutions for Vendor's convenience will be considered, unless otherwise indicated.
 - b. Non-Restricted List: Where Specifications include a list of available manufacturers, provide a product by one (1) of the manufacturers listed, or a product by an unnamed manufacturer, that complies with requirements. Comply with requirements in "Comparable Products" Article for consideration of an unnamed manufacturer's product.
5. Basis-of-Design Product: Where Specifications name a product, or refer to a product indicated on Drawings, and include a list of manufacturers, provide the specified or indicated product or a comparable product by one (1) of the other named manufacturers. Drawings and Specifications indicate sizes, profiles, dimensions, and other characteristics that are based on the product named. Comply with requirements in "Comparable Products" Article for consideration of an unnamed product by one (1) of the other named manufacturers.
- C. Visual Selection Specification: Where Specifications include the phrase "as selected by Architect from manufacturer's full range" or similar phrase, select a product that complies with requirements. Architect will select color, gloss, pattern, density, or texture from manufacturer's product line that includes both standard and premium items.

2.2 COMPARABLE PRODUCTS

- A. Conditions for Consideration: Architect will consider Vendor's request for comparable product when the following conditions are satisfied. If the following conditions are not satisfied, Architect may return requests without action, except to record noncompliance with these requirements:
 1. Evidence that the proposed product does not require revisions to the Contract Documents, that it is consistent with the Contract Documents and will produce the indicated results, and that it is compatible with other portions of the Work.
 2. Detailed, SIDE-BY-SIDE comparison of significant qualities of proposed product with those named in the Specifications. Significant qualities include attributes such as performance, weight, size, durability, visual effect, and specific features and requirements indicated.
 3. Evidence that proposed product provides specified warranty.
 4. List of similar installations for completed projects with project names and addresses and names and addresses of Architects and Owners, if requested.
 5. Samples, if requested.

PART 3 - EXECUTION (Not Used)

END OF SECTION 016000

SECTION 017300 - EXECUTION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section includes general administrative and procedural requirements governing execution of the Work including, but not limited to, the following:
 - 1. Installation of the Work.
 - 2. Patching.
 - 3. Progress cleaning.
 - 4. Protection of installed construction.
 - 5. Correction of the Work.

1.3 DEFINITIONS

- A. Patching: Fitting and repair work required to restore construction to original conditions after installation of other work.

1.4 QUALITY ASSURANCE

- A. Manufacturer's Installation Instructions: Obtain and maintain on-site manufacturer's written recommendations and instructions for installation of products and equipment.

1.5 WARRANTY

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

PART 2 - PRODUCTS

2.1 MATERIALS

- A. General: Comply with requirements specified in other Sections.
- B. In-Place Materials: Use materials for patching identical to in-place materials. For exposed surfaces, use materials that visually match in-place adjacent surfaces to the fullest extent possible.
 - 1. If identical materials are unavailable or cannot be used, use materials that, when installed, will provide a match acceptable to the Architect for the visual and functional performance of in-place materials.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Existing Conditions: The existence and location of utilities and construction indicated as existing are not guaranteed.
- B. Examination and Acceptance of Conditions: Before proceeding with each component of the Work, examine substrates, areas, and conditions, with Installer or Applicator present where indicated, for compliance with requirements for installation tolerances and other conditions affecting performance. Record observations.
 - 1. Written Report: Where a written report listing conditions detrimental to performance of the Work is required by other Sections, include the following:
 - a. Description of the Work.
 - b. List of detrimental conditions, including substrates.
 - c. List of unacceptable installation tolerances.
 - d. Recommended corrections.
 - 2. Verify compatibility with and suitability of substrates, including compatibility with existing finishes or primers.
 - 3. Examine walls, floors, and roofs for suitable conditions where products and systems are to be installed.
 - 4. Proceed with installation only after unsatisfactory conditions have been corrected. Proceeding with the Work indicates acceptance of surfaces and conditions.

3.2 PREPARATION

- A. Field Measurements: Take field measurements as required to fit the Work properly. Recheck measurements before installing each product. Where portions of the Work are indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication. Coordinate fabrication schedule with construction progress to avoid delaying the Work.
- B. Space Requirements: Verify space requirements and dimensions of items shown diagrammatically on Drawings.
- C. Review of Contract Documents and Field Conditions: Immediately on discovery of the need for clarification of the Contract Documents caused by differing field conditions outside the control of the Vendor, submit a request for information to Architect according to requirements in Section 013100 "Project Management and Coordination."

3.3 INSTALLATION

- A. General: Locate the Work and components of the Work accurately, in correct alignment and elevation, as indicated.
 - 1. Make vertical work plumb and make horizontal work level.
 - 2. Where space is limited, install components to maximize space available for maintenance and ease of removal for replacement.
 - 3. Conceal pipes, ducts, and wiring in finished areas, unless otherwise indicated.
 - 4. Maintain minimum headroom clearance of 96 inches in occupied spaces and 90 inches in unoccupied spaces.

- B. Comply with manufacturer's written instructions and recommendations for installing products in applications indicated.
- C. Install products at the time and under conditions that will ensure the best possible results. Maintain conditions required for product performance until Substantial Completion.
- D. Conduct construction operations so no part of the Work is subjected to damaging operations or loading in excess of that expected during normal conditions of occupancy.
- E. Tools and Equipment: Do not use tools or equipment that produce harmful noise levels.
- F. Templates: Obtain and distribute to the parties involved templates for work specified to be factory prepared and field installed. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing products to comply with indicated requirements.
- G. Attachment: Provide blocking and attachment plates and anchors and fasteners of adequate size and number to securely anchor each component in place, accurately located and aligned with other portions of the Work. Where size and type of attachments are not indicated, verify size and type required for load conditions.
 - 1. Mounting Heights: Where mounting heights are not indicated, mount components at heights directed by Architect.
 - 2. Allow for building movement, including thermal expansion and contraction.
- H. Joints: Make joints of uniform width. Where joint locations in exposed work are not indicated, arrange joints for the best visual effect. Fit exposed connections together to form hairline joints.
- I. Hazardous Materials: Use products, cleaners, and installation materials that are not considered hazardous.

3.4 PATCHING

- A. Patching, General: Employ skilled workers to perform patching. Proceed with patching at the earliest feasible time, and complete without delay.
- B. Protection: Protect in-place construction during patching to prevent damage.
- C. Patching: Patch construction by filling, repairing, refinishing, closing up, and similar operations following performance of other work. Patch with durable seams that are as invisible as practicable. Provide materials and comply with installation requirements specified in other Sections, where applicable.
 - 1. Exposed Finishes: Restore exposed finishes of patched areas and extend finish restoration into retained adjoining construction in a manner that will minimize evidence of patching and refinishing.
 - 2. Ceilings: Patch, repair, or rehang in-place ceilings as necessary to provide an even-plane surface of uniform appearance.
- D. Cleaning: Clean areas and spaces where cutting and patching are performed. Remove paint, mortar, oils, putty, and similar materials from adjacent finished surfaces.

3.5 PROGRESS CLEANING

- A. General: Clean Project site and work areas daily at the end of each workday, including common areas. Empty or remove dumpsters at the end of each work week. Enforce requirements strictly. Dispose of materials lawfully.
 - 1. Comply with requirements in NFPA 241 for removal of combustible waste materials and debris.
 - 2. Do not hold waste materials more than seven (7) days during normal weather or three (3) days if the temperature is expected to rise above 80 deg F (27 deg C).
 - 3. Containerize hazardous and unsanitary waste materials separately from other waste. Mark containers appropriately and dispose of legally, according to regulations.
 - a. Utilize containers intended for holding waste materials of type to be stored.
 - 4. Coordinate progress cleaning for joint-use areas where more than one (1) installer has worked.
- 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. Exposed Surfaces in Finished Areas: Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Substantial Completion.
- F. Waste Disposal: Do not bury or burn waste materials on-site.
- G. 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.
- H. 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.
- I. Limiting Exposures: Supervise construction operations to assure that no part of the construction, completed or in progress, is subject to harmful, dangerous, damaging, or otherwise deleterious exposure during the construction period.

3.6 PROTECTION OF INSTALLED CONSTRUCTION

- A. Provide final protection and maintain conditions that ensure installed Work is without damage or deterioration at time of Substantial Completion.
- B. Comply with manufacturer's written instructions for temperature and relative humidity.

3.7 CORRECTION OF THE WORK

- A. Repair or remove and replace defective construction. Restore damaged substrates and finishes.
 - 1. Repairing includes replacing defective parts, refinishing damaged surfaces, touching up with matching materials, and properly adjusting operating equipment.
- B. Restore permanent facilities used during construction to their specified condition.
- C. Remove and replace damaged surfaces that are exposed to view if surfaces cannot be repaired without visible evidence of repair.
- D. Repair components that do not operate properly. Remove and replace operating components that cannot be repaired.
- E. Remove and replace chipped, scratched, and broken glass or reflective surfaces.

END OF SECTION 017300

SECTION 017700 - CLOSEOUT PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for contract closeout, including, but not limited to, the following:
 - 1. Substantial Completion procedures.
 - 2. Final completion procedures.
 - 3. Warranties.
- B. Related Sections:
 - 1. Section 017300 "Execution" for progress cleaning of Project site.
 - 2. Section 017823 "Operation and Maintenance Data" for operation and maintenance manual requirements.
 - 3. Section 017839 "Project Record Documents" for submitting Record Drawings, Record Specifications, and Record Product Data.
 - 4. Divisions 02 through 49 Sections for specific closeout and special cleaning requirements for the Work in those Sections.

1.3 SUBSTANTIAL COMPLETION

- A. Preliminary Procedures: Before requesting inspection for determining date of Substantial Completion, complete the following. List items below that are incomplete with request.
 - 1. Prepare a list of items to be completed and corrected (punch list), the value of items on the list, and reasons why the Work is not complete.
 - 2. Advise Owner of pending insurance changeover requirements.
 - 3. Submit specific warranties, workmanship bonds, maintenance service agreements, final certifications, and similar documents.
 - 4. Prepare and submit Project Record Documents, operation and maintenance manuals, final completion construction photographic documentation, and similar final record information.
 - 5. Deliver tools, spare parts, extra materials, and similar items to location designated by Owner. Label with manufacturer's name and model number where applicable.
 - 6. Complete final cleaning requirements, including touchup painting.
 - 7. Touch up and otherwise repair and restore marred exposed finishes to eliminate visual defects.
- B. Inspection: Submit a written request for inspection for Substantial Completion. On receipt of request, Architect will either proceed with inspection or notify Vendor of unfulfilled requirements. Architect will prepare the Certificate of Substantial Completion after inspection or will notify Vendor of items, either on Vendor's list or additional items identified by Architect, that must be completed or corrected before certificate will be issued.

1. Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.
2. Results of completed inspection will form the basis of requirements for final completion.

1.4 FINAL COMPLETION

- A. Preliminary Procedures: Before requesting final inspection for determining final completion, complete the following:
1. Submit a final Application for Payment according to Section 012900 "Payment Procedures".
 2. Submit certified copy of Architect's Substantial Completion inspection list of items to be completed or corrected (punch list), endorsed and dated by Architect. The certified copy of the list shall state that each item has been completed or otherwise resolved for acceptance.
 3. Submit evidence of final, continuing insurance coverage complying with insurance requirements.
 4. Instruct Owner's personnel in operation, adjustment, and maintenance of products, equipment, and systems.
 5. Secure and provide both temporary and final Certificate of Occupancy from the Building Official, meeting all local and state permit closeout requirements.
- B. Inspection: Submit a written request for final inspection for acceptance. On receipt of request, Architect will either proceed with inspection or notify Vendor of unfulfilled requirements. Architect will prepare a final Certificate for Payment after inspection or will notify Vendor of construction that must be completed or corrected before certificate will be issued.
1. Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.
- C. CT DOE OSCG&R Closeout Assistance:
1. The Vendor shall assist the Architect and Owner with the Office of School Construction Grants and Review closeout and any audit of the project by providing supplemental cost or scope information related to their work or change orders that were executed during the course of the project. This assistance may require administrative support from the Vendor's office but may also require in-person attendance at meetings with the Owner, and any information requested by the Owner must be provided within five (5) calendar days of the request.
 2. This closeout service shall be provided at no additional expense to the project and may be required as much as 24 months after the final date of substantial completion of the project.

1.5 LIST OF INCOMPLETE ITEMS (PUNCH LIST)

- A. Organization of List: Include name and identification of each space and area affected by construction operations for incomplete items and items needing correction including, if necessary, areas disturbed by Vendor that are outside the limits of construction. Use **CSI Form 14.1A** or comparable form.
1. Organize list of spaces in sequential order, starting with from lowest floor to highest floor.
 2. Organize items applying to each space by major element.
 3. Include the following information at the top of each page:
 - a. Project name.
 - b. Date.
 - c. Name of Architect.
 - d. Name of Vendor.

- e. Page number.
- 4. Submit list of incomplete items in the following format:
 - a. PDF electronic file. Architect will return annotated file.

1.6 WARRANTIES

- A. Submittal Time: Submit written warranties on request of Architect for designated portions of the Work where commencement of warranties other than date of Substantial Completion is indicated.
- B. Partial Occupancy: Submit properly executed warranties within fifteen (15) days of completion of designated portions of the Work that are completed and occupied or used by Owner during construction period by separate agreement with Vendor.
- C. Organize warranty documents into an orderly sequence based on the table of contents of the Project Manual.
 - 1. Bind warranties and bonds in heavy-duty, three-ring, vinyl-covered, loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive 8½-by-11-inch paper.
 - 2. Provide heavy paper dividers with plastic-covered tabs for each separate warranty. Mark tab to identify the product or installation. Provide a typed description of the product or installation, including the name of the product and the name, address, and telephone number of Installer.
 - 3. Identify each binder on the front and spine with the typed or printed title "WARRANTIES," Project name, and name of Vendor.
 - 4. Scan warranties and bonds and assemble complete warranty and bond submittal package into a single indexed electronic PDF file with links enabling navigation to each item. Provide table of contents at beginning of document.
- D. Provide additional copies of each warranty to include in operation and maintenance manuals.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Cleaning Agents: Use cleaning materials and agents recommended by manufacturer or fabricator of the surface to be cleaned. Do not use cleaning agents that are potentially hazardous to health or property or that might damage finished surfaces.

PART 3 - EXECUTION (Not Used)

END OF SECTION 017700

SECTION 017823 - OPERATION AND MAINTENANCE DATA

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for preparing operation and maintenance manuals, including the following:
 - 1. Operation and maintenance documentation directory.
 - 2. Product maintenance manuals.
- B. Related Sections:
 - 1. Section 013300 "Submittal Procedures" for submitting copies of submittals for operation and maintenance manuals.
 - 2. Divisions 02 through 49 Sections for specific operation and maintenance manual requirements for the Work in those Sections.

1.3 DEFINITIONS

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

1.4 CLOSEOUT SUBMITTALS

- A. Manual Content: Operations and maintenance manual content is specified in individual specification sections to be reviewed at the time of Section submittals. Submit reviewed manual content formatted and organized as required by this Section.
 - 1. Architect will comment on whether content of operation and maintenance submittals is acceptable.
 - 2. Where applicable, clarify and update reviewed manual content to correspond to modifications and field conditions.
- B. Format: Submit operations and maintenance manuals in the following format:
 - 1. Two (2) thumb drives. Enable review comments on draft submittals.
 - 2. Two (2) paper copies. Include a complete operation and maintenance directory. Enclose title pages and directories in clear plastic sleeves. Architect will return both copies to be given to the Owner.
- C. Initial Manual Submittal: Submit draft copy of each manual at least thirty (30) days before commencing demonstration and training. Architect will comment on whether general scope and content of manual are acceptable.

- D. Final Manual Submittal: Submit each manual in final form prior to requesting inspection for Substantial Completion and at least fifteen (15) days before commencing demonstration and training. Architect will return copy with comments.
 - 1. Correct or modify each manual to comply with Architect's comments. Submit copies of each corrected manual within fifteen (15) days of receipt of Architect's comments and prior to commencing demonstration and training.
- E. Comply with Section 017700 "Closeout Procedures" for schedule for submitting operation and maintenance documentation.

1.5 FORMAT OF OPERATION AND MAINTENANCE MANUALS

- A. Manuals, Electronic Files: Submit manuals in the form of a multiple file composite electronic PDF file for each manual type required.
 - 1. Electronic Files: Use electronic files prepared by manufacturer where available. Where scanning of paper documents is required, configure scanned file for minimum readable file size.
 - 2. File Names and Bookmarks: Bookmark individual documents based on file names. Name document files to correspond to system, subsystem, and equipment names used in manual directory and table of contents. Group documents for each system and subsystem into individual composite bookmarked files, then create composite manual, so that resulting bookmarks reflect the system, subsystem, and equipment names in a readily navigated file tree. Configure electronic manual to display bookmark panel on opening file.
- B. Manuals, Paper Copy: Submit manuals in the form of hard copy, bound and labeled volumes.
 - 1. Binders: Heavy-duty, three-ring, vinyl-covered, loose-leaf binders, in thickness necessary to accommodate contents, sized to hold 8½-by-11-inch paper; with clear plastic sleeve on spine to hold label describing contents and with pockets inside covers to hold folded oversize sheets.
 - a. If two (2) or more binders are necessary to accommodate data of a system, organize data in each binder into groupings by subsystem and related components. Cross-reference other binders if necessary to provide essential information for proper operation or maintenance of equipment or system.
 - b. Identify each binder on front and spine, with printed title "OPERATION AND MAINTENANCE MANUAL," Project title or name, subject matter of contents, and indicate Specification Section number on bottom of spine. Indicate volume number for multiple-volume sets.
 - 2. Dividers: Heavy-paper dividers with plastic-covered tabs for each section of the manual. Mark each tab to indicate contents. Include typed list of products and major components of equipment included in the section on each divider, cross-referenced to Specification Section number and title of Project Manual.
 - 3. Protective Plastic Sleeves: Transparent plastic sleeves designed to enclose diagnostic software storage media for computerized electronic equipment. Enclose title pages and directories in clear plastic sleeves.
 - 4. Supplementary Text: Prepared on 8½-by-11-inch white bond paper.
 - 5. Drawings: Attach reinforced, punched binder tabs on drawings and bind with text.
 - a. If oversize drawings are necessary, fold drawings to same size as text pages and use as foldouts.

- b. If drawings are too large to be used as foldouts, fold and place drawings in labeled envelopes and bind envelopes in rear of manual. At appropriate locations in manual, insert typewritten pages indicating drawing titles, descriptions of contents, and drawing locations.

1.6 REQUIREMENTS FOR EMERGENCY, OPERATION, AND MAINTENANCE MANUALS

- A. Organization: Unless otherwise indicated, organize each manual into a separate section for each system and subsystem, and a separate section for each piece of equipment not part of a system. Each manual shall contain the following materials, in the order listed:
 - 1. Title page.
 - 2. Table of contents.
 - 3. Manual contents.
- B. Title Page: Include the following information:
 - 1. Subject matter included in manual.
 - 2. Name and address of Project.
 - 3. Name and address of Owner.
 - 4. Date of submittal.
 - 5. Name and contact information for Vendor.
 - 6. Name and contact information for Architect.
 - 7. Names and contact information for major consultants to the Architect that designed the systems contained in the manuals.
 - 8. Cross-reference to related systems in other operation and maintenance manuals.
- C. Table of Contents: List each product included in manual, identified by product name, indexed to the content of the volume, and cross-referenced to Specification Section number in Project Manual.
 - 1. If operation or maintenance documentation requires more than one (1) volume to accommodate data, include comprehensive table of contents for all volumes in each volume of the set.
- D. Manual Contents: Organize into sets of manageable size. Arrange contents alphabetically by system, subsystem, and equipment. If possible, assemble instructions for subsystems, equipment, and components of one (1) system into a single binder.

1.7 PRODUCT MAINTENANCE MANUALS

- A. Product Maintenance Manual: Assemble a complete set of maintenance data indicating care and maintenance of each product, material, and finish incorporated into the Work.
- B. Content: Organize manual into a separate section for each product, material, and finish. Include source information, product information, maintenance procedures, repair materials and sources, and warranties and bonds, as described below.
- C. Source Information: List each product included in manual, identified by product name and arranged to match manual's table of contents. For each product, list name, address, and telephone number of Installer or supplier and maintenance service agent, and cross-reference Specification Section number and title in Project Manual and drawing or schedule designation or identifier where applicable.
- D. Product Information: Include the following, as applicable:

1. Product name and model number.
2. Manufacturer's name.
3. Color, pattern, and texture.
4. Material and chemical composition.
5. Reordering information for specially manufactured products.

E. Maintenance Procedures: Include manufacturer's written recommendations and the following:

1. Inspection procedures.
2. Types of cleaning agents to be used and methods of cleaning.
3. List of cleaning agents and methods of cleaning detrimental to product.
4. Schedule for routine cleaning and maintenance.
5. Repair instructions.

F. Repair Materials and Sources: Include lists of materials and local sources of materials and related services.

G. Warranties and Bonds: Include copies of warranties and bonds and lists of circumstances and conditions that would affect validity of warranties or bonds.

1. Include procedures to follow and required notifications for warranty claims.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 017823

SECTION 017839 - PROJECT RECORD DOCUMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for project record documents, including the following:
 - 1. Record Drawings.
 - 2. Record Specifications.
 - 3. Record Product Data.
 - 4. Miscellaneous record submittals.
- B. Related Sections:
 - 1. Section 017700 "Closeout Procedures" for general closeout procedures.
 - 2. Section 017823 "Operation and Maintenance Data" for operation and maintenance manual requirements.
 - 3. Divisions 02 through 49 Sections for specific requirements for project record documents of the Work in those Sections.

1.3 CLOSEOUT SUBMITTALS

- A. Record Drawings: Comply with the following:
 - 1. Number of Copies: Submit one (1) set(s) of marked-up record prints.
- B. Record Specifications: Submit one (1) paper copy of Project's Specifications, including addenda and contract modifications.
- C. Record Product Data: Submit one (1) paper copy of each submittal.
 - 1. Where record Product Data are required as part of operation and maintenance manuals, submit duplicate marked-up Product Data as a component of manual.

PART 2 - PRODUCTS

2.1 RECORD DRAWINGS

- A. Record Prints: Maintain one (1) set of marked-up paper copies of the Contract Drawings and Shop Drawings.
 - 1. Preparation: Mark record prints to show the actual installation where installation varies from that shown originally. Require individual or entity who obtained record data to provide information for preparation of corresponding marked-up record prints.

- a. Accurately record information in an acceptable drawing technique.
 - b. Record data as soon as possible after obtaining it.
 - c. Cross-reference record prints to corresponding archive photographic documentation.
 2. Content: Types of items requiring marking include, but are not limited to, the following:
 - a. Dimensional changes to Drawings.
 - b. Revisions to details shown on Drawings.
 - c. Changes made by Change Order or Construction Change Directive.
 - d. Changes made following Architect's written orders.
 - e. Details not on the original Contract Drawings.
 - f. Field records for variable and concealed conditions.
 - g. Record information on the Work that is shown only schematically.
 3. Mark the Contract Drawings and Shop Drawings completely and accurately. Utilize personnel proficient at recording graphic information in production of marked-up record prints.
 4. Mark record sets with erasable, red-colored pencil. Use other colors to distinguish between changes for different categories of the Work at same location.
 5. Mark important additional information that was either shown schematically or omitted from original Drawings.
 6. Note Construction Change Directive numbers, alternate numbers, Change Order numbers, and similar identification, where applicable.
- B. Format: Identify and date each record Drawing; include the designation "PROJECT RECORD DRAWING" in a prominent location.
1. Record Prints: Organize record prints and newly prepared record Drawings into manageable sets. Bind each set with durable paper cover sheets. Include identification on cover sheets.
 2. Format: Paper copy.
 3. Identification: As follows:
 - a. Project name.
 - b. Date.
 - c. Designation "PROJECT RECORD DRAWINGS."
 - d. Name of Architect.
 - e. Name of Vendor.

2.2 RECORD SPECIFICATIONS

- A. Preparation: Mark Specifications to indicate the actual product installation where installation varies from that indicated in Specifications, addenda, and contract modifications.
1. Mark copy with the proprietary name and model number of products, materials, and equipment furnished, including substitutions and product options selected.
 2. Record the name of manufacturer, supplier, Installer, and other information necessary to provide a record of selections made.
 3. For each principal product, indicate whether record Product Data has been submitted in operation and maintenance manuals instead of submitted as record Product Data.
 4. Note related Change Orders, record Product Data, and record Drawings where applicable.
- B. Format: Submit record Specifications as paper copy.

2.3 RECORD PRODUCT DATA

- A. Preparation: Mark Product Data to indicate the actual product installation where installation varies substantially from that indicated in Product Data submittal.
 - 1. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
 - 2. Include significant changes in the product delivered to Project site and changes in manufacturer's written instructions for installation.
 - 3. Note related Change Orders, record Specifications, and record Drawings where applicable.
- B. Format: Submit record Product Data as paper copy.
 - 1. Include record Product Data directory organized by specification section number and title, electronically linked to each item of record Product Data.

PART 3 - EXECUTION

3.1 RECORDING AND MAINTENANCE

- A. Recording: Maintain one (1) copy of each submittal during the construction period for project record document purposes. Post changes and modifications to project record documents as they occur; do not wait until the end of Project.
- B. Maintenance of Record Documents and Samples: Store record documents and Samples in the field office apart from the Contract Documents used for construction. Do not use project record documents for construction purposes. Maintain record documents in good order and in a clean, dry, legible condition, protected from deterioration and loss. Provide access to project record documents for Architect's reference during normal working hours.

END OF SECTION 017839

SECTION 120000 - MOVEABLE FURNITURE AND EQUIPMENT

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section however this Section supersedes that of any similar clause in Division 01.

1.2 SUMMARY

- A. Section Includes:
 - 1. Moveable furniture and equipment.

1.3 COORDINATION

- A. Coordinate the work with location and placement of utilities. Coordinate characteristics of utilities with requirements of instructional equipment.
- B. Pre-construction Meeting: Prior to the delivery of any furniture/equipment to the site, the Vendor(s) must convene, attend, and document a pre-construction meeting with the Architect, Construction Manager, and School personnel to determine the delivery and installation coordination requirements and the expectations for the furnishing of the project. The meeting must produce a comprehensive, cooperatively produced schedule for the Vendor's operations during the course of the installation work. Refer to Section 013100 "Project Management and Coordination".

1.4 DELIVERY, STORAGE, AND HANDLING

- A. Staging Area: A staging area will be made available to all vendors for use as a temporary staging area for deliveries. This area is NOT intended to be used as a storage area for an entire delivery. These spaces will be shared equally among all vendors as assigned and managed by the Construction Manager. Vendors will be required to move items from said staging area to intended location at no additional cost. Additional staging areas may be identified by the Construction Manager at the time of delivery but should not be assumed available unless directed otherwise.
- B. Delivery:
 - 1. Full loading dock is available. Vendors will need to provide their own vehicle lift gate for any deliveries. Vendors will need to provide their own pallet jack and/or dollies etc. for transport of furniture from trucks, to staging, and to final install locations.
 - 2. All deliveries shall be scheduled between 7:00am-3:30pm, Monday – Friday and must be coordinated with the Construction Manager at least thirty (30) days prior to installation. Failure to coordinate could result in a delayed or refused delivery at the vendors' expense.
 - 3. Any damages to the building or site finishes as a result of the FF&E delivery shall be the responsibility of the Vendor.
 - 4. Vendor is responsible to provide temporary furniture at their own expense in the event they are not able to meet the Construction Manager's delivery schedule or if items arrive

to the school damaged and require replacement. Provision will be at the discretion of the Owner based on quantity.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. In order to meet the needs of persons with disabilities, when applicable, all items shall comply with the current Connecticut basic building code including 2003 ICC/ANSI A117.1, Section 504 Rehabilitation Act 1973 including the Uniform Federal Accessibility Standards (UFAS) and 504 regulations, and the Americans with Disabilities Act Title II including Americans with Disabilities Act accessibility guidelines (ADAAG) and ADA regulations.
- B. Accessible knee clearances shall be a minimum of 30 inches wide, 27 inches high (24 inches child) and 19 inches deep.
- C. Compliance with current Connecticut fire safety code and current O.S.H.A. - Title 29/labor is also required when applicable.

2.2 MOVEABLE FURNITURE AND EQUIPMENT

- A. See attached data sheets for moveable furniture and equipment.

PART 3 - EXECUTION

3.1 EXAMINATION AND INSTALLATION

- A. Examine furniture and equipment before installation and proceed with installation only after unsatisfactory conditions have been corrected.
 - 1. Vendor must provide to the Construction Manager and Architect a course of action regarding any damaged product replacement within three (3) days of acknowledgement/notification.
- B. All prices are to include freight, set up, and clean up.
- C. To ensure proper attachment of fixtures, furnishings, and equipment items, where "items" are attached to wall, ceiling, overhead structure, and/or floor, Vendor shall provide information adequate for Architect to verify items attached to wall, ceiling, and/or floor are attached securely and per manufacturer's recommendations. Architect's review may be implemented during submittal process. Vendor shall provide struts, hangers, fasteners, safety harnesses, channels, bolts, screws, rods, etc. to securely attach items to existing structure as required to meet field conditions and meet applicable codes.

3.2 CLEANING

- A. Trash Removal: Vendors are responsible for removing all trash and/or packing materials from the job site at the end of each day. Use of the Owner's or General Contractor's dumpsters is not permitted.
- B. Final Cleaning: At the completion of installation, Vendors are required to clean all surfaces and rooms of any debris including vacuuming, sweeping, and a wet mopping of the floor as well as a wipe down of any horizontal surfaces. Final cleaning of spaces must be performed in a phased

manner to align with the FF&E delivery schedule and must be completed within the scheduled duration for the FF&E activities.

3.3 PROTECTION

- A. Special Protection: All Vendors delivering and installing furniture, fixtures, or equipment by use of any wheeled equipment (ex. hand trucks, pallet jack, etc.) are required to provide protection for floors, walls, doors, and hardware as required. Any damages to the building or finishes as a result of the FF&E installation shall be the responsibility of the Vendor.

END OF SECTION 120000

CODE A01 **Total QTY:** 1
ITEM: Systems Workstation
MANUFACTURER: KI
MODEL: Unite
FINISHES: High Pressure Laminate Surface: ; Metal: ; Panel High Pressure Laminate:

DIMENSIONS: Overall Size: 112" x 66"

DESCRIPTION: Systems Workstation Security Desk; high pressure laminate top 24"D x 60"W with mobile BBF and cushion top; laminate panels 42"H with 18"H glass framed topper; include integrated power/ data with base feed; Sliding glass door; Include Transaction top 16"D x 36"W
 TO ENSURE PROPER ATTACHMENT OF FIXTURES, FURNISHINGS, AND EQUIPMENT ITEMS, WHERE 'ITEMS' ARE ATTACHED TO THE WALL, CEILING, OVERHEAD STRUCTURE, AND/OR FLOOR, CONTRACTOR SHALL PROVIDE INFORMATION ADEQUATE FOR ARCHITECT TO VERIFY ITEMS, ATTACHED TO WALL, CEILING, AND/OR FLOOR ARE ATTACHED SECURELY AND PER MANUFACTURER'S RECOMMENDATIONS. ARCHITECT'S REVIEW MAY BE IMPLEMENTED DURING SUBMITTAL PROCESS. CONTRACTOR SHALL PROVIDE STRUTS, HANGERS, FASTENERS, SAFETY HARNESSSES, CHANNELS, BOLTS, SCREWS, RODS, ETC. TO SECURELY ATTACH ITEMS TO EXISTING STRUCTURE AS REQUIRED TO MEET FIELD CONDITIONS AND APPLICABLE CODES.

KNEE CLEARANCE: 30"W x 19"D x 27"H

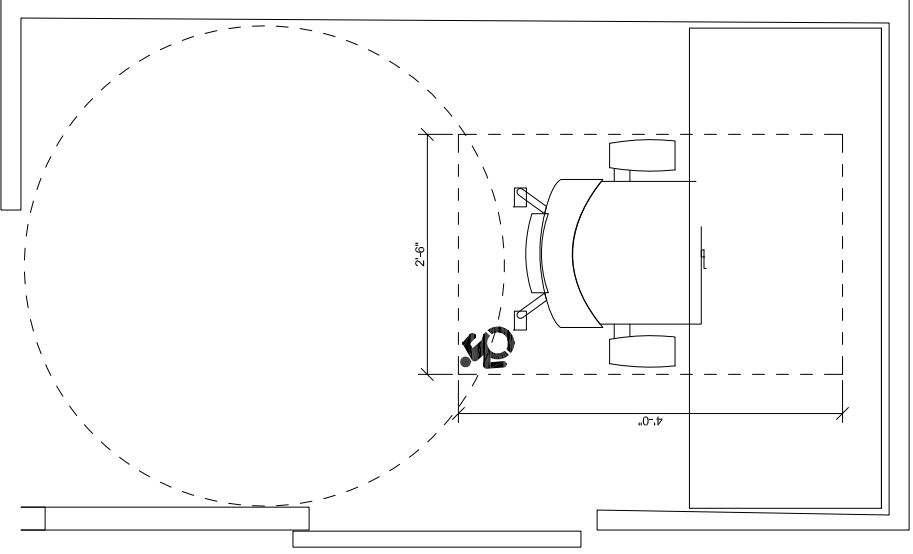
IMAGE:



NOTE: Basis of design specification provided. Substitutions permitted per section 012500 Substitution Procedures provided in project manual.

QUANTITY:

Code	A01	
Room Number		Quantity
1348		1
SUB TOTAL		1



PLAN VIEW

A01

CODE A03
ITEM: Multi-purpose Tables
MANUFACTURER: KI
MODEL: Pirouette
FINISHES: High Pressure Laminate Surface; Base:

Total QTY: 3

DIMENSIONS: 36"D x 72"W x 29"H

DESCRIPTION: Rectangular Table - 36" x 72" Flip and Nest Training Table - fixed height; 1 1/4" thick tabletop with .030" thick high- pressure laminate top surface and .028" phenolic backer; 2mm match edgeband; framework for table support consists of wall steel tubing; a 3mm formed steel table support bracket is attached to the beam and hub using a 10mm diameter steel pivot pin; lockable casters

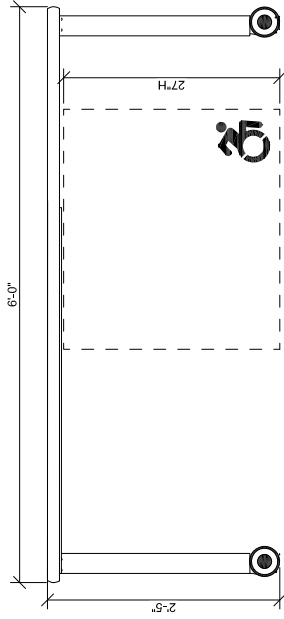
KNEE CLEARANCE: 30"W x 19"D x 27"H

IMAGE:

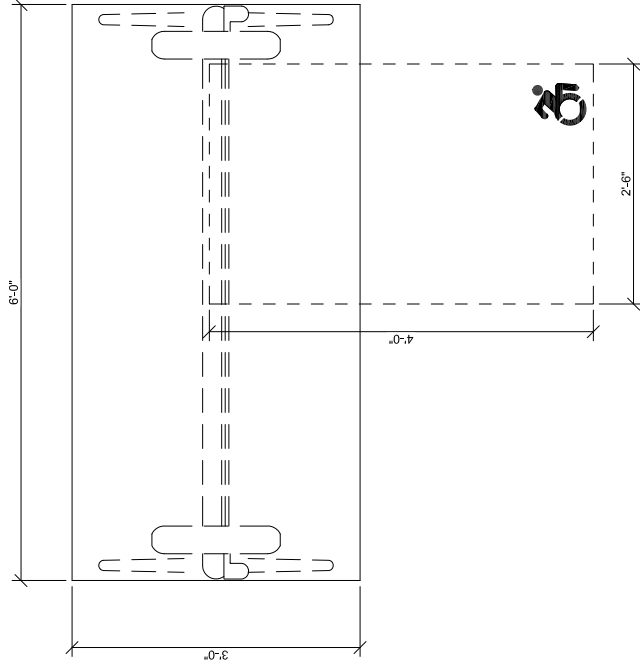


NOTE: Basis of design specification provided. Substitutions permitted per section 012500 Substitution Procedures provided in project manual.

QUANTITY:	Code	A03	
	Room Number		Quantity
	1362		3
	SUB TOTAL		3



FRONT ELEVATION



PLAN VIEW

A03

CODE A04
ITEM: Table for Microwave
MANUFACTURER: KI
MODEL: Pirouette
FINISHES: High Pressure Laminate Surface; Base:

Total QTY: 1

DIMENSIONS: 24"D x 72"W x 29"H

DESCRIPTION: Rectangular Table - 24" x 72" fixed height; 1 1/4" thick tabletop with .030" thick high- pressure laminate top surface and .028" phenolic backer; 2mm match edgeband; framework for table support consists of wall steel tubing; adjustable glides; include a wire trough and tabletop grommets for cord management

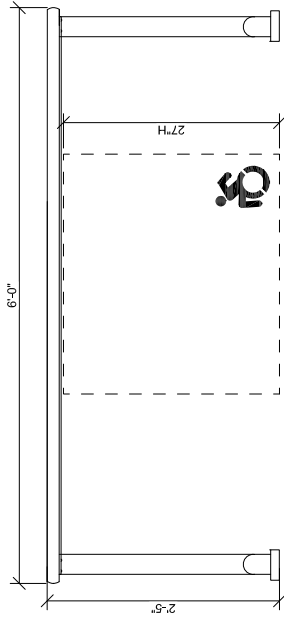
KNEE CLEARANCE: 30"W x 19"D x 27"H

IMAGE:

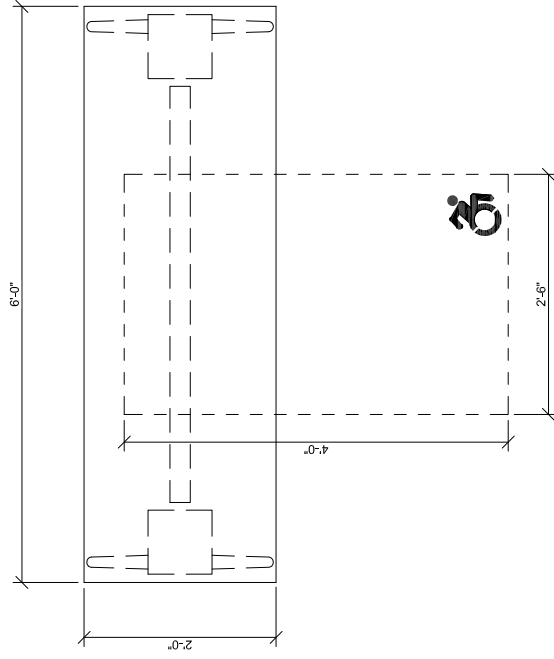


NOTE: Basis of design specification provided. Substitutions permitted per section 012500 Substitution Procedures provided in project manual.

QUANTITY:	Code	A04	
	Room Number		Quantity
	1362		1
	SUB TOTAL		1



FRONT ELEVATION



PLAN VIEW

A04

CODE A05
ITEM: Control Table
MANUFACTURER: KI
MODEL: Pirouette
FINISHES: High Pressure Laminate Surface; Base:

Total QTY: 1

DIMENSIONS: 30"D x 72"W x 29"H

DESCRIPTION: Rectangular Table - 30" x 72" Flip and Nest Training Table - fixed height; 1 1/4" thick tabletop with .030" thick high- pressure laminate top surface and .028" phenolic backer; 2mm match edgeband; framework for table support consists of wall steel tubing; a 3mm formed steel table support bracket is attached to the beam and hub using a 10mm diameter steel pivot pin; lockable casters; include a wire trough, tabletop grommets and vertical leg for cord management; include a felt modesty panel

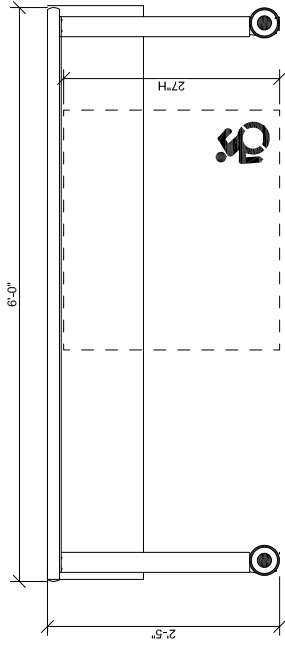
KNEE CLEARANCE: 30"W x 19"D x 27"H

IMAGE:

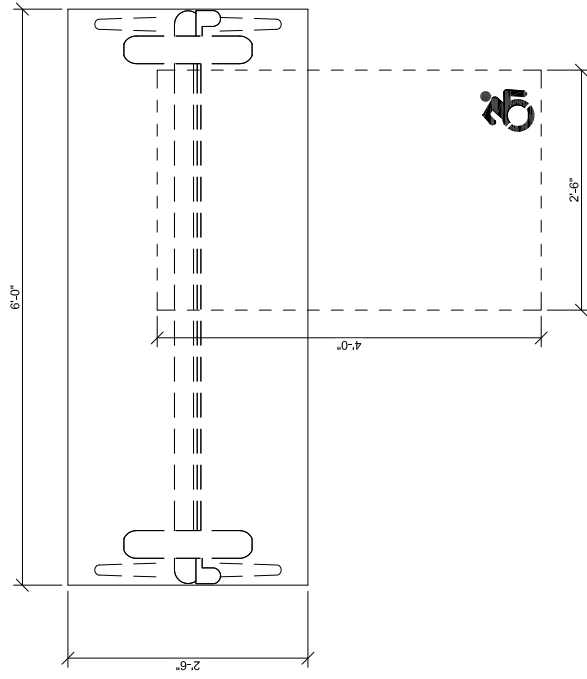


NOTE: Basis of design specification provided. Substitutions permitted per section 012500 Substitution Procedures provided in project manual.

QUANTITY:	Code	A05	
	Room Number		Quantity
	1349		1
	SUB TOTAL		1



FRONT ELEVATION



PLAN VIEW

A05

CODE B01
ITEM: Wardrobe Storage Cabinet
MANUFACTURER: Fleetwood
MODEL: Sheerline- 15501
FINISHES: High Pressure Laminate Surface:

Total QTY: 2

DIMENSIONS: 48"W x 22"D x 72"H

DESCRIPTION: Tall wardrobe storage - locking doors; Mobile - lockable casters; 3/4" thick high pressure laminate side and back panels, top and doors; adjustable shelves; steel bottom; fully welded steel frame; 5" post caster - 2 locking and 2 non-locking; garment rod; steel construction made of 16 gauge steel - top of units with doors to be reinforced with .75" x .75" structural steel angle

KNEE CLEARANCE:

IMAGE:



NOTE: Basis of design specification provided. Substitutions permitted per section 012500 Substitution Procedures provided in project manual.

QUANTITY:	Code	B01	
	Room Number		Quantity
	1353		2
	SUB TOTAL		2

CODE B02
ITEM: Locker
MANUFACTURER: Fleetwood
MODEL: Illusions Line
FINISHES: high pressure laminate surfaces

Total QTY: 2

DIMENSIONS: Overall: 60"W x 20"D x 68"H

DESCRIPTION: 1 side access - no door - 68"H; lockable casters; total of 10 lockers; Case- .75" thick laminate panels, 1mm matching edgeband, metal reveal in top front, through bolt connector to join adjacent cases, 2 coat hook on sides of each tall compartment; Tops are 1" thick laminate with 3mm edgeband; include counterbalance weights

KNEE CLEARANCE:

IMAGE:



NOTE: Basis of design specification provided. Substitutions permitted per section 012500 Substitution Procedures provided in project manual.

QUANTITY:	Code	B02	
	Room Number		Quantity
	1349		2
	SUB TOTAL		2

CODE	B03	Total QTY:	<u>22</u>
ITEM:	Student Desk		
MANUFACTURER:	Fleetwood		
MODEL:	Unitized Frame		
FINISHES:	high pressure laminate surfaces		
DIMENSIONS:	20"D X 27"W x 29"H		
DESCRIPTION:	Student Desk; 1" thick high pressure laminate worksurface; plane shape tabletop with rounded corners; fully welded frame with adjustable legs; 1.5" diameter levelers - all legs		

KNEE CLEARANCE:

IMAGE:



NOTE: Basis of design specification provided. Substitutions permitted per section 012500 Substitution Procedures provided in project manual.

QUANTITY:	Code	B03	
	Room Number		Quantity
	1401		22
	SUB TOTAL		22

CODE	B04	Total QTY:	<u>2</u>
ITEM:	Student Desk (ADA)		
MANUFACTURER:	Fleetwood		
MODEL:	Unitized Frame		
FINISHES:	high pressure laminate surfaces		
DIMENSIONS:	24"D x 36"W x 29"H		
DESCRIPTION:	Student Desk; 1" thick high pressure laminate worksurface; plane shape tabletop with rounded corners; fully welded frame with adjustable legs; 1.5" diameter levelers - all legs		

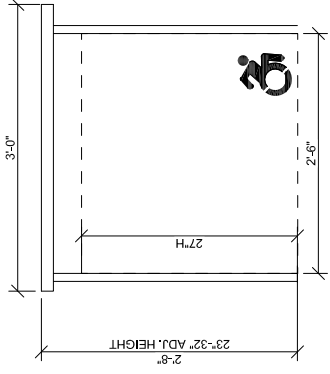
KNEE CLEARANCE: 30"W x 19"D x 27"H

IMAGE:

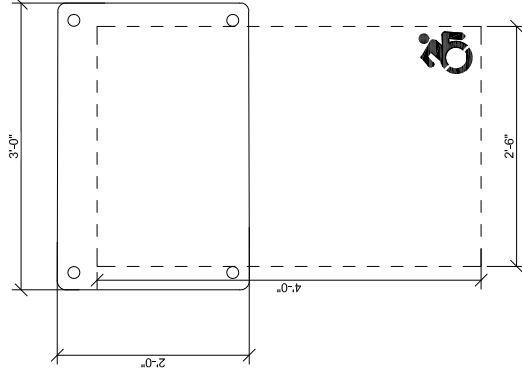


NOTE: Basis of design specification provided. Substitutions permitted per section 012500 Substitution Procedures provided in project manual.

QUANTITY:	Code	B04	
	Room Number		Quantity
	1401		2
	SUB TOTAL		2



FRONT ELEVATION



PLAN VIEW

B04

CODE	BB01	Total QTY:	<u>24</u>
ITEM:	Student Chairs		
MANUFACTURER:	Virco		
MODEL:	IQ Series 4-Leg Stack Chair		
FINISHES:	Chair Color: Sky Blue ; Chair Frame: Chrome		
DIMENSIONS:	20-7/8"W x 20-9/16"D x 31-1 1/16"H; 17-1/2"SH		
DESCRIPTION:	Stacking 4-leg stack student chair (Grades 5-Adult) with extra-wide design for greater range of movement; One-piece molded polypropylene shell; tubular steel frame and legs		

KNEE CLEARANCE:

IMAGE:



NOTE: Basis of design specification provided. Substitutions permitted per section 012500 Substitution Procedures provided in project manual.

QUANTITY:	Code	BB01	
	Room Number		Quantity
	1401		24
	SUB TOTAL		24

CODE BB02
ITEM: Science Student Chairs
MANUFACTURER: Virco
MODEL: IQ Series
FINISHES:

Total QTY: 20

DIMENSIONS: 20-7/8"W x 20-9/16"D x 31-11/16"H; 16"-20"SH

DESCRIPTION: Task Chair - 5 star base with glides (Grades 5-Adult) with extra-wide design for greater range of movement; One-piece molded polypropylene shell; tubular steel frame and legs

KNEE CLEARANCE:

IMAGE:



NOTE: Basis of design specification provided. Substitutions permitted per section 012500 Substitution Procedures provided in project manual.

QUANTITY:	Code	BB02	
	Room Number		Quantity
	1401		20
	SUB TOTAL		20

CODE	E01	Total QTY:	<u>2</u>
ITEM:	Admin. Task Chair		
MANUFACTURER:	Allseating		
MODEL:	Inertia		
FINISHES:	Frame Finish: ;Mesh Selection: ;Fabric Selection:		
DIMENSIONS:	28"W x 28"D x 40-44"H; 20" - 28"SH		
DESCRIPTION:	Inertia Task Highback; Syncro Tilt; Hard Casters; Mesh Back; Seat Depth Adjustment; Height Adjustable Arms, High density molded seat foam		

KNEE CLEARANCE:

IMAGE:



NOTE: Basis of design specification provided. Substitutions permitted per section 012500 Substitution Procedures provided in project manual.

QUANTITY:	Code	E01	
	Room Number	Quantity	
	1348	1	
	1349	1	
	SUB TOTAL	2	

CODE	E02	Total QTY:	<u>12</u>
ITEM:	Staff Dining Chair		
MANUFACTURER:	Allseating		
MODEL:	Tuck		
FINISHES:	Poly Color: ;Base/ Frame Color:		
DIMENSIONS:			
DESCRIPTION:	Stacking chairs with polypropylene seat and back, non-marring nylon glides		

KNEE CLEARANCE:

IMAGE:



NOTE: Basis of design specification provided. Substitutions permitted per section 012500 Substitution Procedures provided in project manual.

QUANTITY:	Code	E02	
	Room Number		Quantity
	1362		12
	SUB TOTAL		12

CODE	E03	Total QTY:	<u>3</u>
ITEM:	Staff Lounge Chair		
MANUFACTURER:	Moduform		
MODEL:	Collegetown Flex- SFCT01V		
FINISHES:	Fabric:		
DIMENSIONS:	36"D x 37"W x 32"H; 17.5"SH		
DESCRIPTION:	High-grade commercial polyurethane foam with fiber wrap for shape and comfort		

KNEE CLEARANCE:

IMAGE:



NOTE: Basis of design specification provided. Substitutions permitted per section 012500 Substitution Procedures provided in project manual.

QUANTITY:	Code	E03	
	Room Number		Quantity
	1362		3
	SUB TOTAL		3

CODE	K01	Total QTY:	<u>1</u>
ITEM:	Refrigerator		
MANUFACTURER:	Whirlpool		
MODEL:	WRT311FZDW		
FINISHES:	White		
DIMENSIONS:	32.75"W x 32.875"D x 66.25"H		
DESCRIPTION:	33-inch wide top freezer refrigerator - 20 cu. Ft.; refrigerator capacity 14 cu. Ft. and freezer 6 cu. Ft.; 2 door; 3 interior refrigerator shelves; ADA Compliant		

KNEE CLEARANCE:

IMAGE:



NOTE: Basis of design specification provided. Substitutions permitted per section 012500 Substitution Procedures provided in project manual.

QUANTITY:	Code	K01	
	Room Number		Quantity
	1362		1
	SUB TOTAL		1

CODE	L01	Total QTY:	<u>2</u>
ITEM:	Foam Ottoman		
MANUFACTURER:	Fomcore		
MODEL:	Rok -F005-18x18-ROK		
FINISHES:	Top: ; Side:		
DIMENSIONS:	18" x 18"		
DESCRIPTION:	Active seating solution; soft seating with rocking base; Solid foam construction, lightweight, reinforced seams and stitching; made in USA; lifetime warranty		

KNEE CLEARANCE:

IMAGE:



NOTE: Basis of design specification provided. Substitutions permitted per section 012500 Substitution Procedures provided in project manual.

QUANTITY:	Code	L01	
	Room Number		Quantity
	1212		2
	SUB TOTAL		2

CODE	L02	Total QTY:	<u>3</u>
ITEM:	Foam Lounge Loveseat		
MANUFACTURER:	Fomcore		
MODEL:	Linear Sofa -F019		
FINISHES:	Back: ; Seat: ;		
DIMENSIONS:	45"L x 23.5"W x27"H; 14"SH + 3" Foot		
DESCRIPTION:	Solid foam construction, lightweight, reinforced seams and stitching; MDF baseboard; 3" Rectangle Silver; made in USA; lifetime warranty		

KNEE CLEARANCE:

IMAGE:



NOTE: Basis of design specification provided. Substitutions permitted per section 012500 Substitution Procedures provided in project manual.

QUANTITY:	Code	L02	
	Room Number		Quantity
	1212		3
	SUB TOTAL		3

CODE	L03	Total QTY:	<u>1</u>
ITEM:	Foam Lounger		
MANUFACTURER:	Fomcore		
MODEL:			
FINISHES:			
DIMENSIONS:	72"L x 48"W x 48"H		
DESCRIPTION:	6'-0" Foam Lounger; reinforced seams and stitching; fully zippered; machine washable liner; made in USA; lifetime warranty		

KNEE CLEARANCE:

IMAGE:



NOTE: Basis of design specification provided. Substitutions permitted per section 012500 Substitution Procedures provided in project manual.

QUANTITY:	Code	L03	
	Room Number		Quantity
	1212		1
	SUB TOTAL		1

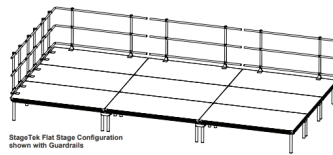
CODE	M01	Total QTY:	<u>1</u>
ITEM:	Portable Stage with ramp and stairs		
MANUFACTURER:	Wenger		
MODEL:	Stagetek Staging		
FINISHES:			

DIMENSIONS: Overall Size: 16'-0" x 16'-0" x 16"H; ADA Ramp: 18'-0"L

DESCRIPTION: 16' x 16' portable stage with ramp (16"H elevation) and stairs; include skirting and backdrop; 3/4" thick and constructure of Group 1 veneer plywood with a protective laminate on both sides; Surface deck cracked ice, center brace with fixed legs; include guardrails along back and side; Stage Backdrop color: black, wynham, accordian pleat, 8'H, 36' velcro hook side included (100% fire retardant woven polyester)

KNEE CLEARANCE:

IMAGE:



NOTE: Basis of design specification provided. Substitutions permitted per section 012500 Substitution Procedures provided in project manual.

QUANTITY:	Code	M01	
	Room Number		Quantity
	1349		1
	SUB TOTAL		1

CODE M02

Total QTY: 1

ITEM:

MANUFACTURER:

MODEL:

FINISHES:

DIMENSIONS:

DESCRIPTION: Portable Stage Curtain Proscenium, traveling curtains, and side curtains attached to the portable stage; IFR flame retardant fabric

KNEE CLEARANCE:

IMAGE:



NOTE: Basis of design specification provided. Substitutions permitted per section 012500 Substitution Procedures provided in project manual.

QUANTITY:

Code	M02	
Room Number		Quantity
1349		1
SUB TOTAL		1

CODE M03
ITEM: Audience Seating with ganging clips
MANUFACTURER: Wenger
MODEL: 234A108
FINISHES:

Total QTY: 156

DIMENSIONS: 19.4"SW x 20.8"D x 19"SH x 34.2"H

DESCRIPTION: Standard seat with 3" padding and arched back; X-frame design; double tube and channel 18-gauge steel frame with 1 1-gauge K brace for extra strength provide strength, durability and flexibility; rubber, non-marring feet formed over flat steel inserts protect floors; provide ganging clips; weight limit of 450 lbs.

KNEE CLEARANCE:

IMAGE:



NOTE: Basis of design specification provided. Substitutions permitted per section 012500 Substitution Procedures provided in project manual.

QUANTITY:	Code	M03	
	Room Number		Quantity
	1349		156
	SUB TOTAL		156

CODE	M04	Total QTY:	<u>8</u>
ITEM:	Audience Chair carts		
MANUFACTURER:	Wenger		
MODEL:	234A204		
FINISHES:			
DIMENSIONS:	96"L x 39"H		
DESCRIPTION:	Single-Role Vertical Storage Cart; Capacities: 32 compact padded seat chairs, 20 standard or contour padded seat chairs		

KNEE CLEARANCE:

IMAGE:



NOTE: Basis of design specification provided. Substitutions permitted per section 012500 Substitution Procedures provided in project manual.

QUANTITY:	Code	M04	
	Room Number		Quantity
	1406		8
	SUB TOTAL		8

CODE M05
ITEM: Mobile Dance Ballet Barre
MANUFACTURER: Harlequin Floors
MODEL: Professional Series
FINISHES:

Total QTY: 3

DIMENSIONS: 72"L x Lower Barre Height: 32.5" or Upper Barre Height: 41.5"H

DESCRIPTION: Mobile Dance Ballet Barre constructure of Anodized aluminum with a smooth silver finish and maple barre at 1 -15/16"D; adjustable feet for stability; approx. weight: 28 lbs

KNEE CLEARANCE:

IMAGE:



NOTE: Basis of design specification provided. Substitutions permitted per section 012500 Substitution Procedures provided in project manual.

QUANTITY:	Code	M05	
	Room Number		Quantity
	1352		3
	SUB TOTAL		3

CODE M06
ITEM: Clothing Rack
MANUFACTURER: Wenger
MODEL: 028B001
FINISHES:

Total QTY: 2

DIMENSIONS: 48"W x 24"D x 70.5"H

DESCRIPTION: Rack 'n Roll Garment Cart Black 4'; total load capacity - 200lbs; equipped with full - length hanger bar with space for full-length costumes 14-gauge bottom shelf protects longer garments from draggin on the floor; 16-gauge top shelf is ideal for lightweight items; fits through standard 32" door; include dust cover

KNEE CLEARANCE:

IMAGE:



NOTE: Basis of design specification provided. Substitutions permitted per section 012500 Substitution Procedures provided in project manual.

QUANTITY:	Code	M06	
	Room Number		Quantity
	1355		2
	SUB TOTAL		2

CODE M07
ITEM: Music Chairs
MANUFACTURER: Wenger
MODEL: 0936121
FINISHES: Black finish frame

Total QTY: 39

DIMENSIONS: 17.5" frame height x 22"D x 19.875"W x 33.25"H

DESCRIPTION: Student Chair Black Frame/ Black Seat 17.5"; Black high impact 1/8" thick textured polypropylene seat and back; music posture design; 16-gauge 7/8" square tube frame and 14-gauge 7/8" square tube rear crossmember designed and welded to give support around entire outer edge of both seat and back

KNEE CLEARANCE:

IMAGE:



NOTE: Basis of design specification provided. Substitutions permitted per section 012500 Substitution Procedures provided in project manual.

QUANTITY:	Code	M07	
	Room Number		Quantity
		1372.1	39
		SUB TOTAL	39

CODE M08
ITEM: Choral Risers with ramp
MANUFACTURER: Wenger
MODEL:
FINISHES:

Total QTY: 1

DIMENSIONS: Overall Size: 32'-0" x 6'-0"; ADA Ramp: 8'-0"L

DESCRIPTION: Qty: 8- 3' x 8' Deck - 2 Tiers bottom tier set at 8" A.F.F. and top tier set at 16" A.F.F.; Top tier to include surrounding guardrails; Include ADA Ramp; 3/4" thick and constructure of Group 1 veneer plywood with a protective laminate on both sides; Surface deck cracked ice, center brace with fixed legs; include guardrails along back and side;

KNEE CLEARANCE:

IMAGE:



NOTE: Basis of design specification provided. Substitutions permitted per section 012500 Substitution Procedures provided in project manual.

QUANTITY:	Code	M08	
	Room Number		Quantity
	1372		1
	SUB TOTAL		1

CODE M09
ITEM: Mobile carts for Performance Stage
MANUFACTURER: Wenger
MODEL: Staging Universal Deck & Rail Cart
FINISHES:

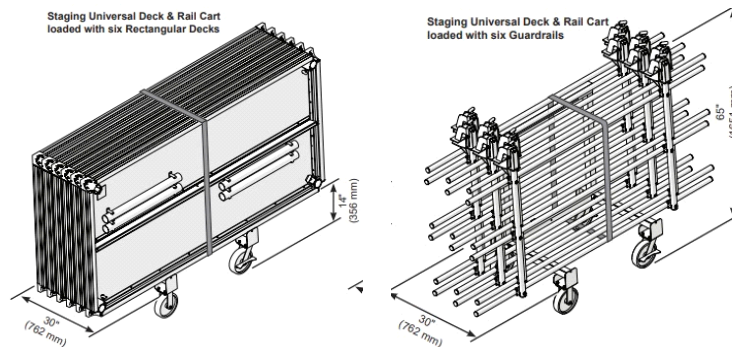
Total QTY: 2

DIMENSIONS:

DESCRIPTION: Staging Universal Deck & Rail Cart; fits through a 32"W door; Holds six Stagetek rectangular decks or six guardrails; heavy duty, non-marring locking casters and ratcheting nylon safety strap

KNEE CLEARANCE:

IMAGE:



NOTE: Basis of design specification provided. Substitutions permitted per section 012500 Substitution Procedures provided in project manual.

QUANTITY:

Code	M09	
Room Number		Quantity
1406		2
SUB TOTAL		2

CODE M10
ITEM: Music Stands
MANUFACTURER: Wenger
MODEL: Classic 50 Music Stand
FINISHES: Black

Total QTY: 39

DIMENSIONS: 20"W x 25"to 49" adjustable height + 13.5" height
DESCRIPTION: Polycarbonate material for strength and durability; Less than 5 lbs. lightweight; wobble-free base attachment; Brass spring height adjustment mechanism

KNEE CLEARANCE:

IMAGE:



NOTE: Basis of design specification provided. Substitutions permitted per section 012500 Substitution Procedures provided in project manual.

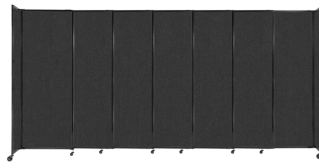
QUANTITY:	Code	M10	
	Room Number		Quantity
		1372.1	39
		SUB TOTAL	39

CODE M11
ITEM: Mobile Screen Divider
MANUFACTURER: Versare
MODEL: Straight Wall Sliding Portable Partition
FINISHES: Black Soundsorb Felt; Trim Color: black
DIMENSIONS: 11'-3"W x 7'-6"H
DESCRIPTION: Mobile Screen Divider

Total QTY: 1

KNEE CLEARANCE:

IMAGE:



NOTE: Basis of design specification provided. Substitutions permitted per section 012500 Substitution Procedures provided in project manual.

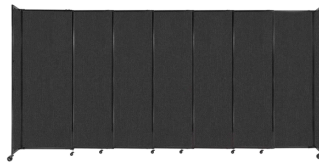
QUANTITY:	Code	M11	
		Room Number	Quantity
		1349	1
		SUB TOTAL	1

CODE M12
ITEM: Mobile Screen Divider
MANUFACTURER: Versare
MODEL: Straight Wall Sliding Portable Partition
FINISHES: Black Soundsorb Felt; Trim Color: black
DIMENSIONS: 15'-6"W x 7'-6"H
DESCRIPTION: Mobile Screen Divider

Total QTY: 2

KNEE CLEARANCE:

IMAGE:



NOTE: Basis of design specification provided. Substitutions permitted per section 012500 Substitution Procedures provided in project manual.

QUANTITY:	Code	M12	
	Room Number		Quantity
	1349		2
	SUB TOTAL		2

CODE	M13	Total QTY:	<u>3</u>
ITEM:	Mobile Dance Mirror		
MANUFACTURER:	Harlequin Floors		
MODEL:			
FINISHES:			
DIMENSIONS:	48"W x 72"W		
DESCRIPTION:	Lightweight, glassless (shatterproof) mobile mirror; lockable casters		

KNEE CLEARANCE:

IMAGE:



NOTE: Basis of design specification provided. Substitutions permitted per section 012500 Substitution Procedures provided in project manual.

QUANTITY:	Code	M13	
	Room Number		Quantity
	1352		3
	SUB TOTAL		3

CODE S01
ITEM: Science Tables 42" x 60"
MANUFACTURER: Fleetwood
MODEL:
FINISHES: Phenolic Resin top; Metal Frame
DIMENSIONS: 42" x 60"
DESCRIPTION: Unitized Frame; Adjustable height legs

Total QTY: 5

KNEE CLEARANCE: 30"W x 19"D x 27"H

IMAGE:

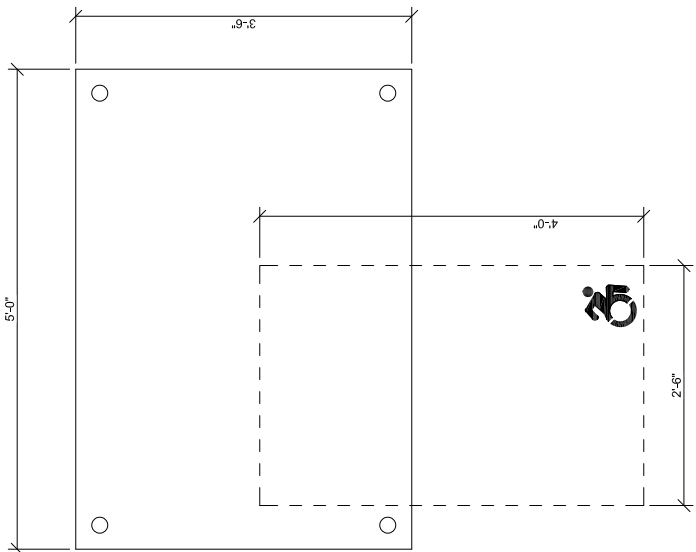


NOTE: Basis of design specification provided. Substitutions permitted per section 012500 Substitution Procedures provided in project manual.

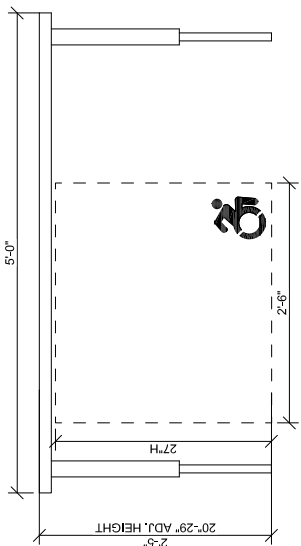
QUANTITY:	Code	S01	
	Room Number		Quantity
	1401		5
	SUB TOTAL		5

PLAN VIEW

S01



FRONT ELEVATION



SECTION 272200 - NETWORK CABLE AND UPS EQUIPMENT

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section Includes
 - 1. Patch Cables for Network Active Electronics
 - 2. Patch Cables for Wireless Access Points
 - 3. Uninterrupted Power Supplies (UPS)
- B. Related Requirements:
 - 1. IT – Technology Drawings

1.3 DESCRIPTION

- A. Section includes the patch cables for the data infrastructure and UPS's.
- B. These materials shall support the data infrastructure, wireless devices, video surveillance system, and the voice communication system.
- C. Wireless access point locations are throughout the facility as indicated on the IT Drawings.
- D. All data horizontal and backbone cabling infrastructure (fiber and copper) has been installed under a prior project phase and is NOT part of this bid.
- E. All active network electronics and wireless access points are being procured via State Contract and are NOT part of this bid.
- F. All Category 6/6A copper patch cords and 50/125um multi-mode fiber patch cords within the IT closets and at the WAP's are required to be furnished and installed as part of this section.
- G. The Vendor awarded this section shall be responsible for the following:
 - 1. Patch Cables: Procure, deliver to specified Data Rooms, install into patch panels and/or access point jacks.
 - 2. UPS's: Procure, deliver to Data Rooms, install into racks, and startup test. Power up all equipment per the Owner's direction.

1.4 APPLICABLE STANDARDS

- A. All the work within the scope of this bid shall be performed in accordance with the applicable state, county, and city laws and ordinances. The Bidder shall be able to obtain all permits and licenses as required in addition to being a licensed contractor. All materials, supplies, and equipment being furnished shall be installed in accordance with the latest version of the applicable standards of:

1. OSHA
2. Uniform Building Code
3. Americans with Disabilities Act (ADA)
4. Components of the system shall be of the type approved by Safety and Regulatory Agencies including:
 - a. Underwriters' Laboratories (UL), Inc.
 - b. Federal Communications Commission (FCC).
 - c. Agency approvals and UL Listing declare the system's design, components, and installation shall meet the highest standards.
 - d. System installation shall comply with UL 681 and UL 611.
5. The equipment shall comply with Part 68 of the FCC Telephone Requirements Rules.
6. All circuits and equipment shall be installed and protected according to the National Electric Code and any applicable local requirements.

1.5 COORDINATION

- A. Pre-construction Meeting: Prior to the delivery of any equipment to the site, the Vendor(s) must convene, attend, and document a pre-construction meeting with the Architect, Construction Manager, and School personnel to determine the delivery and installation coordination requirements and the expectations for the furnishing of the project. The meeting must produce a comprehensive, cooperatively produced schedule for the Vendor's operations during the course of the installation work. Refer to Section 013100 "Project Management and Coordination".

1.6 SUBMITTALS

- A. Pricing for all devices shown within Article 2.2 – BILL OF MATERIAL BOM must be filled out on the corresponding Itemized Category Summary Sheets and submitted with this bid proposal and shall include all unit and total pricing.
- B. Product Data: For each type of product indicated.
 1. Include dimensions and data on features, performance, electrical characteristics, ratings, and finishes.
 2. Include manufacturer's technical data, product specifications, installation instructions, and other pertinent information as applicable for each product or material specified.
- C. Samples of manufacturer's standard warranties.
- D. Equipment List: Include every piece of equipment by model number, manufacturer, serial number, location, and date of original installation.
- E. Operation and Maintenance Data: For devices listed within this specification.
 1. Lists of spare parts and replacement components recommended to be stored at the site for ready access.

1.7 QUALITY ASSURANCE

- A. All devices procured and delivered, as part of this specification shall be new from the manufacturer. Refurbished devices will not be accepted for this project. The technology consultant will verify all devices prior to delivery and installation of all devices described within this specification.

1.8 DELIVERY, STORAGE, AND HANDLING

- A. Take care in handling products in accordance with manufacturer's instructions.
- B. Store indoors in original undamaged packaging, in a well-ventilated area protected from weather, moisture, soiling, extreme temperatures, and humidity. Store products upright in secure, protected area. Verify with manufacturer that site conditions are acceptable before receiving material.
- C. Environmental Conditions: Capable of withstanding the following environmental conditions without mechanical or electrical damage or degradation of operating capability:
 - 1. Interior, Controlled Environment: System components installed in temperature-controlled interior environments shall be rated for continuous operation in ambient temperatures of 36 to 122 deg F dry bulb and twenty to ninety percent (20-90%) relative humidity.

1.9 WARRANTY

- A. Standard Manufacturer Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of any device and equipment related to operation, and equipment that fail in materials or workmanship within specified warranty period. Extended warranties are not included in this specification. Operational software updates within the warranty period shall be included. No application software is included in this specification.
 - 1. Warranty Period: Manufacturer's standard, but minimum one (1) year.

PART 2 - PRODUCTS

2.1 STATIC UNINTERRUPTIBLE POWER SUPPLY

- A. Double Conversion, Line Interactive:
 - 1. Normal Conditions: Load is supplied with power flowing from the normal power input terminals, with the rectifier-charger and inverter turned off and the battery disconnected.
 - 2. Abnormal Supply Conditions: If normal supply deviates from specified and adjustable voltage, voltage waveform, or frequency limits, the rectifier-charger and inverter turn on and the battery supplies energy to provide constant, regulated inverter power output to the load with minimum of 98 percent UPS system efficiency.
 - 3. Power Failure: If normal power fails, there is a maximum 4 μ s delay while the rectifier-charger and inverter turn on and the battery supplies energy to re-establish constant, regulated power output to the load.
- B. UL Compliance: Listed and labeled, by qualified electrical testing laboratory recognized by authorities having jurisdiction, in accordance with UL 1778.
- C. The UPS must perform as specified in this article while supplying rated full-load current, composed of any combination of linear and nonlinear load, up to one hundred percent (100%) non-linear load with a maximum load crest factor of 3.0, under the following conditions or combinations of the following conditions:
 - 1. Inverter is switched to battery source.
 - 2. Steady-state input frequency deviates up to plus or minus five percent (+/-5%) from nominal frequency.

3. THD of input voltage is fifteen percent (15%) or more with a minimum crest factor of 3.0, and the largest single harmonic component is a minimum of five percent (5%) of the fundamental value.
 4. Minimum Duration of Supply: If battery is sole energy source supplying rated full-load UPS current at eighty percent (80%) power factor, duration of supply is 3 minutes.
- D. Battery: Valve-regulated, recombinant, lead-calcium units, factory assembled in an isolated compartment of UPS cabinet, complete with battery disconnect switch.
- E. Accessories: Furnish with network management card with environmental monitoring, stepdown transformer (if unit output is converted from 208V to 120V), compatible rack mounting rails, and temperature/humidity sensor.
- F. Manufacturers: Basis-of-Design: Liebert (Vertiv) PSI5. Refer to attached Item Data Sheet. Equal products from the following manufacturers will be considered:
1. APC
 2. Eaton
- G. Provide minimum 1-year warranty or factory standard with manufacturer startup.

2.2 PATCH CORDS

- A. All Category 6/6E rated copper and fiber optic patch cords are to be procured, delivered, and installed as indicated under this portion of the specification.
- B. Copper patch cord lengths shall be 1 or 3 feet long as indicated in the BOM. The lengths shall accommodate the distances from the switches to the patch panels.
1. Each Ethernet port on every switch shall receive a blue category 6 rated patch cord.
 2. Each wireless access point shall receive a yellow category 6E rated patch cord.
- C. Manufacturers: Basis-of-Design: Legrand. Equal products from the following manufacturers will be considered:
1. Belden/Mohawk
 2. Berk-Tek
 3. CommScope

2.3 UPS AND PATCH CABLE – BOM

- A. The following quantities are offered as reference only. Actual quantities of all devices MUST be verified with the Architectural and IT Drawings.

Number	Mfgr.	Model	Description	Qty.
TE-01-10	Legrand	576-110-001	Category 6 Network Patch Cable RJ-45 male to male, 6 Foot, Blue	101
TE-01-11	Legrand	576-A15-001	Category 6A Network Patch Cable RJ-45 male to male, 1 Foot, Yellow	10
TE-04-01	Liebert	GXT5-3000LVRT2UXLN	3KVA UPS w/Network Card	3
TE-04-04	Liebert	2POSTRMKIT	Mounting Rails	3

2.4 ADDITIONAL SERVICES

- A. The following services shall be included with all pricing for items within this specification.

Number	Mfgr.	Model	Description	Qty.
TE-01-12	Misc.	Misc.	Installation, Configuration & Warranty for All TE-01 Items	1
TE-04-10	Misc.	Misc.	Installation, Configuration & Warranty for All TE-04 Items	1

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine data room conditions, ceiling, and wall surfaces to assure they are in compliance with requirements and other conditions affecting installation and operation of all devices within this specification.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 SYSTEM INSTALLATION

- A. The Contractor awarded this section is responsible for the warranty and support on all items as required.

3.3 SYSTEM STARTUP

- A. The Contractor shall not apply power to the system until after:
- System and components have been installed and inspected in accordance with the manufacturer's installation instructions.
 - A visual inspection of the system components has been conducted to ensure that defective equipment items have not been installed and that there are no loose connections.
 - All system grounding and transient protection systems have been verified as properly installed and connected, as indicated.
 - Power supplies to be connected to the system and equipment have been verified as the correct voltage, phasing, and frequency as indicated.
- B. Satisfaction of the above requirements shall not relieve the Contractor of responsibility for incorrect installations, defective equipment items, or collateral damage as a result of Contractor work/equipment.

3.4 FIELD QUALITY CONTROL

- A. Verify that accessories required for each unit have been properly installed, level and secured.
- B. Perform tests and inspections.
- Manufacturer's Field Service: Engage a factory-authorized service representative to inspect components, assemblies, and equipment installations, including connections, and to assist in testing.
- C. Tests and Inspections:

1. Inspection: Verify that units and controls are properly installed, connected, and labeled, and that interconnecting wires and terminals are identified.
2. Pretesting: Align and adjust system and pretest components, wiring, and functions to verify that they comply with specified requirements.
3. Operational Tests: Perform operational system tests to verify that system complies with Specifications. Include all modes of system operation.

3.5 CLEANING

- A. Remove rubbish and debris daily and dispose of legally: Installation contractor is not allowed you use the onsite dumpster and is responsible to discard their own debris off site.
- B. Clean installed items using methods and materials recommended in writing by manufacturer.

END OF SECTION 272200

Liebert® PSI5 is a compact, Automatic Voltage Regulation (AVR) line-interactive UPS system designed especially for IT applications such as network closets and small data centers.

The Liebert PSI5 UPS supports advanced pure sine wave output on battery to safeguard critical IT equipment and business electronics. It also provides reliable power protection for servers, critical nodes, network workstations, large network peripherals, network routers, bridges, and other electronic equipment. With 3 different form-factors available, the Liebert PSI5 has been designed to ensure power continuity for a wide array of applications.

Ideally suited for

- Servers
- Network Closets
- Safety and Security systems
- Network Workstations
- Large Network Peripherals
- Storage
- VoIP
- Media Closet Equipment
- POS Systems

2U Rack/Tower (800VA - 5000VA)



- Convertible rack/tower design with rotatable LCD display provides flexible installation options
- Extended runtime capability with external battery cabinets for hours of back-up time
- Vertiv™ Liebert® Intellislot™ SNMP/Webcards available for remote power management, and environmental sensor support

1U Rack Mount (1000VA, 1500VA)



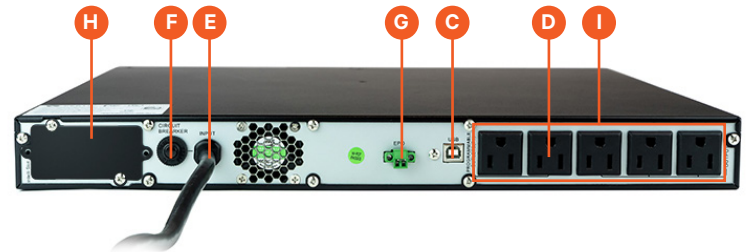
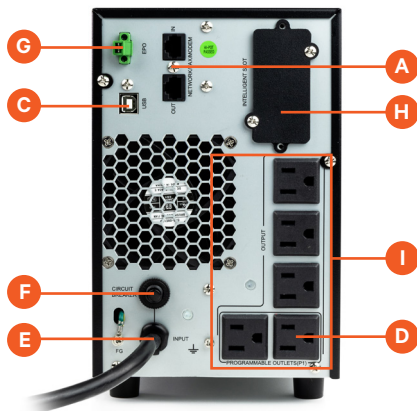
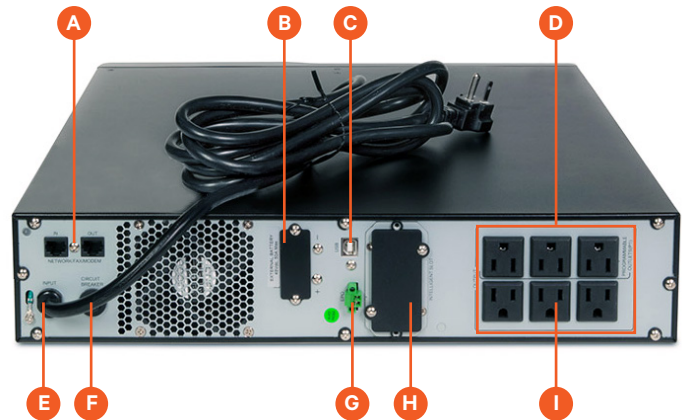
- Compact 1U Rack Mount design for applications with limited rack space
- Comes with rack mounting hardware included
- Vertiv™ Liebert® Intellislot™ SNMP/Webcards available for remote power management, and environmental sensor support

Mini Tower (750VA, 1100VA, 1500VA)



- Compact Mini Tower design for tower servers and/or applications with no available rack
- Plug and play solution requiring no installation
- Vertiv™ Liebert® Intellislot™ SNMP/Webcards available for remote power management, and environmental sensor support

- A** RJ-45 Data Line Surge Connectors
- B** Extended Runtime Battery Connection
- C** USB Port
- D** Programmable Outlet Group
- E** Input Power Cord
- F** Input Circuit Breaker
- G** Emergency Power Off (EPO) Connector
- H** Vertiv™ Liebert® IntelliSlot™ Port
Optional (Communications Card)
- I** Output Receptacles



Reliable UPS protection to keep your network up and running

The flexible design of the Liebert® PSI5 allows the UPS to be tower (MT models), 1U rack mountable (1U models), or to be configured as a self-standing tower or to be rack-mounted within a 2U space (RT models). It is available from 750VA to 5000VA with both 120V or 208V models.

The Liebert PSI5 UPS features an innovative advanced line-interactive design incorporating buck/boost Automatic Voltage Regulation (AVR) technology.

This protects against utility voltage fluctuation by raising and lowering utility power to the level needed by the connected equipment. It also allows the UPS to prolong battery life by maximizing its time on utility power before going to battery.

With high efficiency and 0.9 power factor operation, the Liebert PSI5 will meet your critical application needs. You can rest assured that your business is protected with this Vertiv solution, which includes a standard, two-year advanced exchange product warranty.

What's In The Box

- UPS Unit
- USB Type A to USB Type B cable 1.8 meter (6ft) in length
- Printed quick start guide with safety instructions
- Adjustable 4 post rack mounting kit (not included with Mini Tower)
- Support base for tower configuration (2U Rack/Tower Models Only)
- Vertiv™ Power Insight Management software (free download from Vertiv.com)
- Vertiv™ Liebert® IS-UNITY-SNMP Card (Only Models ending with an "N")

High Availability

0.9 Output Power Factor: More usable power enables more connected loads saving space and costs

Wider Input Voltage Window: Prolongs battery life by allowing the UPS to maximize the use of utility power before transferring to battery when input exceeds specified limits (76 to 146 VAC @120V)

Full Sequenced Battery Testing: The Vertiv™ Liebert® PSI5 UPS includes an automatic and manual self-diagnostic test feature. This provides a comprehensive analysis of the condition of the batteries within the UPS and will notify you when the internal batteries need to be replaced.

Advance Early Warning of UPS System Status: The Liebert® PSI5 UPS offers multiple audible and visual alarms to immediately alert you to an input voltage fluctuation (buck/boost), output overload, low battery or replace battery condition.

Optional Vertiv™ Liebert® MicroPod Output Distribution and Maintenance Bypass Module

When your computer system can't be without power, even for scheduled UPS maintenance, the Liebert® MicroPod ensures continuous uptime. It allows you to manually transfer connected equipment to utility power permitting scheduled service or UPS replacement without the need to shut down connected equipment.

Features include:

- 2U height minimizes rack space requirements
- Installs with plug-and-play ease

Flexibility

Up to Seven Battery-Backed Outlets: Allows the Liebert PSI5 to be more flexible in accommodating additional equipment to be connected to the UPS via the receptacles.

Configurable Input Voltage Window: Allows the UPS to be properly matched to the incoming utility power and adjusts its input window and transfer points to supply regulated power to connected loads within the selected range.

Programmable Outlet Group: Power cycle connected equipment and load shed on battery to extend run time.

Hot Swappable Batteries: Increase product life and provide prolonged UPS reliability. Batteries are conveniently located behind the front bezel of the unit (RT models) or from the bottom (tower models).

Manageability

USB Communications: Power management functions provide monitoring of UPS status and manage the automatic orderly shutdown of the computer if a power outage ever exceeds the battery capacity of the UPS. Vertiv™ Trellis™ Power Insight Shutdown Software is available at Vertiv.com.

SNMP Communication Option: Add an optional Vertiv™ Liebert® IntelliSlot™ IS-UNITY communications card to enable SNMP and web-based management for the Liebert PSI5 UPS. The Liebert® IntelliSlot UNITY communication cards provide network integration connectivity and allow you to monitor and control your UPS from your network management station or any PC.

- Sends both SNMP traps and emails for event notification
- Auto-senses 10M/100M Ethernet
- Compatible with shutdown software to ensure graceful computer shutdown
- IS-UNITY-DP Communications Card also support Vertiv™ Liebert® SN Series, Environmental Sensors
- Allows remote monitoring, start-up or restart for connected equipment.
- Select models include factory integrated network management card

Remote Emergency Power Off: Allows the UPS to be remotely shut down during an emergency.

MicroPod - Maintenance bypass and output distribution

The Liebert® MicroPod (Power Output Distribution) is a maintenance bypass option for UPS products, 3 kVA and below. It allows removal of the UPS without powering down the connected equipment. The 2U Pod's can be installed on the floor or mounted to a Liebert® PSI5 using the included mounting brackets.

UPS VA rating	Pod model number	Output receptacles	Plug to utility
500-1500VA UPS	MP2-115HW	Hard Wired	Hardwired
	MP2-115A	8 x 5-15R	5-15P
2000VA UPS	MP2-120HW	Hard Wired	Hardwired
	MP2-120C	8 x 5-15/20R	5-20P
	MP2-120E	4 x 5-15/20R; 1 x L5-20R	5-20P
3000VA UPS	MP2-130HW	Hard Wired	Hardwired
	MP2-130C	8 x 5-15/20R	L5-30P
	MP2-130E	2 x 5-15/20R; 1 x L5-30R; 4 x 5-15/20R	L5-30P
	MP2-130P	4 x 5-15R; 2 x L5-20R	L5-30P

UPS Specifications for 2U Rack/Tower Models



Standard Models	PSI5-800RT120	PSI5-1100RT120	PSI5-1500RT120	PSI5-2200RT120	PSI5-3000RT120	PSI5-5000RT208
Models with IS-UNITY-SNMP Card	PSI5-800RT120N	PSI5-1100RT120N	PSI5-1500RT120N	PSI5-2200RT120N	PSI5-3000RT120N	PSI5-5000RT208N
Power Rating, VA/W	800VA/720W	1100VA/990W	1500VA/1350W	1920VA/1920W	2880VA/2700W	4250VA/3825W
Dimensions, W X D X H, IN (MM)						
Unit	17.2 x 16.1 x 3.5 (438 x 410 x 88)	17.2 x 16.1 x 3.5 (438 x 410 x 88)	17.2 x 20 x 3.5 (438 x 510 x 88)	17.2 x 24.8 x 3.5 (438 x 630 x 88)	17.2 x 24.8 x 3.5 (438 x 630 x 88)	17.2 x 24.8 x 3.5 (438 x 630 x 88)
Shipping	10.2 x 22.9 x 21.7 (258 x 582 x 550)	10.2 x 22.9 x 21.7 (258 x 582 x 550)	10.2 x 26.5 x 21.7 (258 x 672 x 550)	10.2 x 26.7 x 21.7 (258 x 782 x 550)	10.2 x 26.7 x 21.7 (258 x 782 x 550)	10.2 x 26.7 x 21.7 (258 x 782 x 550)
Weight, LB (KG)						
Unit	28.4 (12.9)	29.5 (13.4)	42.6 (19.3)	59.1 (26.8)	70.8 (32.1)	87.7 (39.8)
Shipping	32.2 (16.9)	37.9 (17.2)	51.8 (23.5)	70.1 (31.8)	81.8 (37.1)	98.8 (44.8)
Input/Output AC Parameters						
Nominal Voltage Setting			100/110/115/120(default) / 125			200/208/220/230/240
Voltage Range Without Battery Operation	75 to 146 VAC	75 to 146 VAC	75 to 146 VAC	75 to 146 VAC	75 to 146 VAC	150 to 281 VAC
Frequency Range			55-65Hz (57-63Hz Battery to Normal comeback)			
Surge Protection	1372J	1372J	1372J	1372J	1372J	2064J
Input Power Cord, 8ft (2.4m) Attached	NEMA 5-15	NEMA 5-15	NEMA 5-15	NEMA L5-20 std 5-20 adapter included	NEMA L5-30P	NEMA L6-30P
Output Receptacles – Not Controllable	(3) NEMA 5-15R	(3) NEMA 5-15R	(3) NEMA 5-15R	(3) NEMA 5-15/20R, (1) NEMA L5-20R	(3) NEMA 5-15/20R, (1) NEMA L5-30R	(3) L6-30R
Output Receptacles – Controllable	(3) NEMA 5-15R	(3) NEMA 5-15R	(3) NEMA 5-15R	(3) NEMA 5-20R	(3) NEMA 5-20R	(1) NEMA L6-30R
Transfer Time				4-6 ms Typical		
Battery Waveform				Pure Sinewave		
Battery Parameters						
Type		Valve-regulated lead-acid (VRLA) in compliance with UL 1989				
Recharge Time				4 hours to recover 90%		
Internal Battery Run Time						
Full Load	5.5 min	4.5 min	6.0 min	5.0 min	5.5 min	3.0 min
Half Load	16.0 min	13.5 min	18.0 min	14.0 min	16.0 min	10.0 min
External Battery	PSI5-24VBATT	PSI5-24VBATT	PSI5-48VBATT	PSI5-72VBATT	PSI5-72VBATT	PSI5-72VBATT
Environmental						
Operating Temperature, °F (°C)			32° to 104° (0° to 40°)			
Storage Temperature °F (°C)				5° to 120° (-15° to 50°)		
Relative Humidity				20% – 90%, non-condensing		
Operating Altitude 0 to 9,942 (0 to 3,000) without derating. Operating temperature reduced 9 °F (5 °C) for each additional 1,640ft (500m) of altitude.						
Audible Noise	< 45 dB	< 45 dB	< 45 dB@line mode < 55 dB@battery mode	< 45 dB@line mode < 55 dB@battery mode	< 45 dB@line mode < 55 dB@battery mode	< 45 dB@line mode < 55 dB@battery mode
Agency						
Safety				UL 1778, c-UL-us Listed		
Emissions				FCC Part 15, Class B		
Network Surge				UL 497 B		
Transportation ISTA Procedure 1A Certification						
Protection Plan						
Equipment Protection Plan				\$400,000		

Specifications for 1U Rack Mount & Mini Tower Models



Standard Models	PSI5-1000RM1201U	PSI5-1500RM1201U	PSI5-750MT120	PSI5-1100MT120	PSI5-1500MT120	
Models with IS-UNITY-SNMP Network Card	PSI5-1000RM1201UN	PSI5-1500RM1201UN	PSI5-750MT120N	PSI5-1100MT120N	PSI5-1500MT120UN	
Power Rating, VA/W	1000VA, 900W	1440VA, 1350W	750 VA, 675W	1100 VA, 990W	1440 VA, 1350W	
Dimensions, W X D X H, IN (MM)						
Unit	17.2 x 20.1 x 1.7 (438 x 511 x 44)	17.2 x 24.8 x 1.7 (438 x 631 x 44)	5.7 x 14.8 x 8.7 (145 x 376 x 220)	5.7 x 14.8 x 8.7 (145 x 376 x 220)	5.7 x 19.1 x 8.7 (145 x 484 x 220)	
Shipping	22.1 x 23.4 x 5.5 (560 x 595 x 140)	23.4 x 27.8 x 5.5 (595 x 710 x 140)	9.1 x 17.7 x 12.8 (230 x 450 x 325)	9.1 x 17.7 x 12.8 (230 x 450 x 325)	9.1 x 22.4 x 12.8 (230 x 570 x 325)	
Weight, LB (KG)						
Unit	36.4 (16.5)	45.6 (20.7)	24.7 (11.2)	26.0 (11.8)	40.1 (18.2)	
Shipping	40.8 (18.5)	51.1 (23.2)	27.8 (12.6)	29.1 (13.2)	44.1 (20.0)	
Nominal Voltage Setting			100 / 110 / 115 / 120 / 125 VAC			
Input/Output AC Parameters						
Voltage Input Range (with battery operation)			0-150VAC			
Voltage Input Range (without battery operation)			75-146VAC			
Input Voltage Measurement Tolerance			3%			
High Line Buck to Battery			117 / 129/ 135 / 140 / 146 VAC			
Standard Models						
Frequency Input Range			55-65 Hz (57-63 Hz Battery to Normal comeback)			
Internal Rear-panel Input Breaker Rating		13A	16A	10A	13A	16A
Input Surge Protection			ANSI C62.41, Category A, Level 3 1372 J			
Input Power Cord		8ft (2.4m)	8ft (2.4m)	6ft (1.8m)	6ft (1.8m)	6ft (1.8m)
Output Voltages (on battery)		100 / 110 / 115 / 120 / 125 VAC(±1.5 on battery before alarm) user selectable (120 VAC is factory default)				
Output Frequency (on battery)		60 Hz ±1%				
Output Receptacles - not controllable		(3) NEMA 5-15R				
Output Receptacles - controllable		(2) NEMA 5-15R		(3) NEMA 5-15R		
Transfer Time		Adjustable with User Setting 09 ST1: 4-6ms typical, 10ms max (default) ST2: 4-6ms Typical, 11ms max ST3: 8-10ms typical, 13ms max				
Battery Waveform		Pure Sinewave				
Output Overload Operation		100%- alarm warning 110% - alarm warning and shutdown after 10 seconds 120%- alarm warning and immediate shutdown				
Protection		Electronic (over current, short circuit w/ latching shutdown)				
Buck- and Boost-mode Efficiency			93%			
Type		Valve-regulated lead-acid (VRLA) in compliance with UL 1989				
Recharge Time		6 hours to recover 90%		6-8 hours to recover 90%		
Quantity x Voltage x Ah		4 x 6V x 9Ah	6 x 6V x 9Ah	2 x 12V x 9Ah	2 x 12V x 10Ah	2 x 12V x 9Ah
Environmental						
Operating Temperature, ° F (° C)			32-104 (0-40)			
Storage Temperature ° F (° C)			-5- 122 (-15- 50)			
Relative Humidity			20% to 90% non-condensing			
Operating Altitude		0 - 9,942 (0 -3,000) without derating Operating temperature reduced 9° F (5° C) for each additional 1,640 ft (500 m) of altitude.				
Audible Noise			< 45dB		< 45dB@line mode <55dB@battery mode	
Agency						
Safety			UL 1778, c-UL-us Listed			
Emissions			FCC Part 15, Class B			
Network Surge			UL 497 B			
Transportation			ISTA Procedure 1A Certification			
Protection Plan						
Equipment Protection Plan			\$400,000			

For Runtime Estimates with EBC see Runtime Calculator

Accessories and Options

Replacement Internal Battery Kits

Part Number	Applicable To	Shipping Weight lbs.
PSI5-800BATKIT	PSI5-800RT120(N)	13.6
PSI5-1100BATKIT	PSI5-1100RT120(N)	14.1
PSI5-1500BATKIT	PSI5-1500RT120(N)	25.5
PSI5-2200BATKIT	PSI5-2200RT120(N)	37.8
PSI5-3000BATKIT	PSI5-3000RT120(N)	38.8
PSI5-5000BATKIT	PSI5-5000RT208(N)	41.0
PSI5-750MTBATKIT	PSI5-750MT120(N)	12.3
PSI5-1100MTBATKIT	PSI5-1100MT120(N)	13.9
PSI5-1500MTBATKIT	PSI5-1500MT120(N)	23.6
PSI5-10001UBATKIT	PSI5-1000RM1201U(N)	14.3
PSI5-15001UBATKIT	PSI5-1500RM1201U(N)	21.2

External Battery Cabinets

Part Number	Applicable To	Shipping Weight lbs.
PSI5-24VBATT	PSI5-800RT120(N), PSI5-1100RT120(N)	51.8
PSI5-48VBATT	PSI5-1500RT120(N)	70.3
PSI5-72VBATT	PSI5-2200RT120(N), PSI5-3000RT120(N), PSI5-5000RT208(N)	96.1

Note: Runtimes with EBC are shown on the Runtime Tool

Extended Battery Cabinet Interconnect Cable

Part Number	Applicable To	Shipping Weight lbs.
PSI5-24VCBL1	PSI5-24VBATT	1.56
PSI5-24VCBL6	PSI5-24VBATT	2.8
PSI5-48VCBL1	PSI5-48VBATT	1.56
PSI5-48VCBL6	PSI5-48VBATT	2.8
PSI5-72VCBL1	PSI5-72VBATT	1.56
PSI5-72VCBL6	PSI5-72VBATT	2.8

Mounting Kit Options

These mounting kits are only applicable to 2U Rack/Tower Products

Application	Model Supported	Style	Part Number	Description
2 Post-Telecom rack	PSI5 2U UPS family up to 5kVA	Bracket	2POSTRMKIT	Flexible installation capability on typical 2 post network equipment racks. Securely mount the UPS into a typical 3-6" rail width solution
		Shelf	RS500	Flush-mount shelf for 19" rack wide
		Shelf	RS600	Center-mount shelf for 19" rack wide
		Shelf	RS700	Flush-mount shelf for 23" rack wide
		Shelf	RS800	Center-mount shelf for 23" rack wide



2POSTRMKIT and PSI5 2U UPS

Note: RS600 and RS800 kits include adapter brackets for installation of up to (2) Liebert® PSI5 2U model

Step Down Transformer Options (Only for use with PSI5-5000RT208)

The TDU is a 2U rack/tower step-down Transformer with integral power distribution and air cooling. It can be used to provide low voltage power distribution from 208 or 240VAC input.

Part Number	Power Rating at 208VAC	Input	Output
TDU-4000RTL630	4000VA / 4000W	L6-30P	2 x L5-20R 8 x NEMA 5-15/20R
TDU-6000RTL630	5050VA / 5050W	L6-30P	2 x L5-30R 8 x NEMA 5-15/20R



TDU-6000RTL630 and PSI5-5000RT208

Network Communication Cards and environmental sensors

Optional Intellislot cards are compatible with all Liebert PSI5 UPS systems

Network Communications	IS-UNITY-SNMP IS-UNITY-DP IS-RELAY	10/100 Mbit Ethernet SNMP, Device Web Page, with MIB and configuration cable Same as IS-UNITY-SNMP plus SN series environmental sensor support Intellislot Interface Kit for Relay Contacts
Environmental Sensors	SN-Z01 SN-Z02 SN-Z03 SN-T SN-TH SN-2D SN-3C SN-L20	Integrated cable with single temperature sensor Integrated cable with three temperature sensors Integrated cable with three temperature and one humidity sensors Modular with single temperature sensor Modular with single temperature and single humidity sensor Modular with two door contact inputs Modular with three dry contact inputs Modular leak zone sensor with 20 foot cable (Liebert RDU-S only)
UPS manageability options	Trellis™ Power Insight Software Management	Trellis™ Power Insight is a complimentary web-based software designed to monitor up to 100 Vertiv™ UPSs and rPDUs

Liebert® PSI5 UPS - Power Assurance Services

Power Assurance Package

Bundled Start-up Service AND 5-Year On-site Emergency Response	Standard	With LIFE™ Services	With Removal	With LIFE™ and Removal
Equipment Model / Type	Part Number	Part Number	Part Number	Part Number
Liebert PSI5 UP TO 3KVA	PAPPSI-1K3K	PAPPSI-1K3KLF	PAPPSI-1K3KRMV	PAPPSI-1K3KRLF
Liebert PSI5 5KVA	PAPPSI-5K	PAPPSI-5KLF	PAPPSI-5KRMV	PAPPSI-5KRLF
Liebert PSI5 EXTERNAL BATTERY CABINETS	PAPPSI-BATT	-----	PAPPSI-BATTRMV	

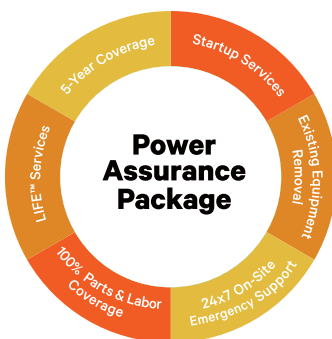
Power Start-up Services

Startup service Only	Standard	With Removal
Equipment Model / Type	Part Number	Part Number
Liebert PSI5 UP TO 3KVA	SUPSI-1K3K	SUPSI-1K3KRMV
Liebert PSI5 5KVA	SUPSI-5K	SUPSI-5KRMV
Liebert PSI5 EXTERNAL BATTERY CABINETS	SUPSI-EXTBTCB	SUPSIEXTBTCBRMV

Power Emergency Services

5-Year On-site Emergency Coverage - Only	Standard	With LIFE™ Services
Equipment Model / Type	Part Number	Part Number
Liebert PSI5 750 and 800VA	PEPPSI-8005Y	PEPPSI-8005Y
Liebert PSI5 1000 and 1100VA	PEPPSI-11005Y	PEPPSI-11005Y
Liebert PSI5 1500VA	PEPPSI-15005Y	PEPPSI-15005Y
Liebert PSI5 2200VA	PEPPSI-22005Y	PEPPSI-22005Y
Liebert PSI5 3000VA	PEPPSI-30005Y	PEPPSI-30005Y
Liebert PSI5 5000VA	PEPPSI-5K5Y	PEPPSI-5K5Y
Liebert PSI5 24VBATT EXT BATT CABINET	PEPPSI-24VBATT	PEPPSI-24VBATT
Liebert PSI5 48VBATT EXT BATT CABINET	PEPPSI-48VBATT	PEPPSI-48VBATT
Liebert PSI5 72VBATT EXT BATT CABINET	PEPPSI-72VBATT	PEPPSI-72VBATT

Power Assurance Package - Summary



- Includes all below "Power Start-up Services" and "Power Emergency Services" support
- One Preventative Maintenance visit after 3rd year (5kVA UPS only)

Power Emergency Services - Summary

- On Site Service Support
- Full-service five (5) year contract term commencing upon the start-up date
- 100% parts coverage, including internal batteries, Pod and web card
- 100% labor and travel coverage 7 days/week, 24 hours/day
- 24-Hour Customer Resolution Center via 1-800-LIEBERT
- Access to Customer Services Network portal

Power Startup Services - Summary

- Installation includes mounting and start-up of new UPS or EBC (excludes hard-wired applications)
- Services performed by Vertiv factory trained technician
- Services performed 7 X 24, excluding national holidays within the 48 contiguous states and Hawaii
- Removal and disposal of existing UPS or EBC equipment, if selected

Vertiv™ LIFE™ Services includes above plus:

- Continuous Monitoring, Expert Analysis, and Proactive Response

Note: LIFE™ Vertiv™ Services requires an UNITY card.

Please refer to the [Scopes of Work](#) for full and additional details.

Vertiv™ Liebert® PSI5 Extended Warranty (800-5000 Va; 120 Vac & 208 Vac)

Warranty Extension List Price		
	Additional 1 Year	Additional 3 Years
UPS Model Number	Warranty Part Number	Warranty Part Number
2U Rack/Tower UPS Models		
PSI5-800RT120(N)	1WEPSI5-800	3WEPSI5-800
PSI5-1100RT120(N)	1WEPSI5-1100	3WEPSI5-1100
PSI5-1500RT120(N)	1WEPSI5-1500	3WEPSI5-1500
PSI5-2200RT120(N)	1WEPSI5-2200	3WEPSI5-2200
PSI5-3000RT120(N)	1WEPSI5-3000	3WEPSI5-3000
PSI5-5000RT208(N)	1WEPSI5-5000	3WEPSI5-5000
Mini Tower UPS Models		
PSI5-750MT120(N)	1WEPSI5-750	3WEPSI5-750
PSI5-1100MT120(N)	1WEPSI5-1100	3WEPSI5-1100
PSI5-1500MT120(N)	1WEPSI5-1500	3WEPSI5-1500
1U Rack Mount UPS Models		
PSI5-1000RM1201U(N)	1WEPSI5-1000	3WEPSI5-1000
PSI5-1500RM1201U(N)	1WEPSI5-1500	3WEPSI5-1500
External Battery Cabinets		
PSI5-24VBATT	1WEPSI5-24VBATT	3WEPSI5-24VBATT
PSI5-48VBATT	1WEPSI5-48VBATT	3WEPSI5-48VBATT
PSI5-72VBATT	1WEPSI5-72VBATT	3WEPSI5-72VBATT
<i>Note: Extended warranties can only be ordered when ordering the UPS and prior to shipment.</i>		

UPS Runtime Tables

Runtimes with EBCs are available at:

<https://www.vertiv.com/en-us/support/tools-applications/vertiv-ups-interactive-runtime-tools/liebert-psi5-ups-runtime-tool/>



SECTION 274100 - AUDIO VISUAL EQUIPMENT

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. Electrically operated, front-projection screens.
 - 2. Ceiling mounted projector with lens.
 - 3. RGBW motorized track lights.
- B. Related Requirements:
 - 1. T Series Technology Drawings.

1.3 DEFINITIONS

- A. Gain: Ratio of light reflected from viewing surface material to that reflected perpendicularly from a magnesium carbonate surface as determined in accordance with SMPTE RP 94.
- B. Half-Gain Angle: The angle, measured from the axis of the viewing surface to the most central position on a perpendicular plane through the horizontal centerline of the viewing surface, where the gain is half of the peak gain.

1.4 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. Shop Drawings: Show layouts and types of audio visual equipment. Include the following:
 - 1. Drop heights.
 - 2. Anchorage details, including connection to supporting structure for suspended units.
 - 3. Details of juncture of exposed surfaces with adjacent finishes.
 - 4. For electrically operated units, wiring diagrams and location of wiring connections.
 - 5. Accessories.
- C. Samples: For each type of exposed finish and for each color and finish specified, in manufacturer's standard sizes.
- D. Warranties: Sample of manufacturer's standard warranties.

1.5 CLOSEOUT SUBMITTALS

- A. Maintenance Data: For audio visual equipment to include in maintenance manuals.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Environmental Limitations: Do not deliver audio visual equipment until spaces are enclosed and weathertight, wet work in installation spaces is complete and dry, and temporary or permanent HVAC system is operating and maintaining ambient temperature and humidity conditions at occupancy levels during the remainder of the construction period.
- B. Store audio visual equipment in manufacturer's protective packaging and according to manufacturer's written instructions.

1.7 COORDINATION

- A. Pre-construction Meeting: Prior to the delivery of any equipment to the site, the Vendor(s) must convene, attend, and document a pre-construction meeting with the Architect, Construction Manager, and School personnel to determine the delivery and installation coordination requirements and the expectations for the furnishing of the project. The meeting must produce a comprehensive, cooperatively produced schedule for the Vendor's operations during the course of the installation work. Refer to Section 013100 "Project Management and Coordination".
- B. Coordinate layout and installation of audio visual equipment with adjacent construction, including ceiling suspension systems, light fixtures, HVAC system components, fire-suppression system, and partitions.

1.8 WARRANTY

- A. Standard Manufacturer Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of any device and equipment related to operation, and equipment that fail in materials or workmanship within specified warranty period. Extended warranties are not included in this specification. Operational software updates within the warranty period shall be included. No application software is included in this specification.
 - 1. Warranty Period: Manufacturer's standard, but minimum one (1) year.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Source Limitations: Obtain each type of audio visual equipment from single manufacturer. Obtain viewing surfaces and accessories, including mounting hardware, from projection screen manufacturer.

2.2 ELECTRICALLY OPERATED, FRONT-PROJECTION SCREENS

- A. General Requirements: Manufacturer's standard units consisting of case, screen, motor, controls, mounting accessories, and other components necessary for a complete installation.
 - 1. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
 - 2. Screen Mounting: Top edge securely anchored to a rigid steel roller; bottom edge formed into a pocket holding a tubular metal slat, with ends of slat protected by plastic caps, and with a saddle and pull attached to slat by screws.
 - 3. Viewing-Surface and Masking Materials:
 - a. Mildew-Resistance Rating: Zero or 1 when tested in accordance with ASTM G21.

- b. Flame Resistance: Passes NFPA 701.
 - c. Flame-Spread Index: Not greater than 75 when tested in accordance with ASTM E84.
- B. Surface-Mounted, Metal-Encased, Electrically Operated Screens: Motor-in-roller units designed and fabricated for surface mounting on wall or ceiling, fabricated from formed-steel sheet or from aluminum extrusions; with manufacturer's standard finish and matching end caps.
 - 1. Basis-of-Design:
 - a. Draper, Inc.; **Acumen XL E, 18'**
 - 2. Available Manufacturers:
 - a. Bretford, Inc.
 - b. Legrand North America, LLC (Legrand AV)
 - c. Substitutions: Under provisions of Section 012500 "Substitution Procedures".
 - 3. Motor in Roller: Instant-reversing motor of size and capacity recommended in writing by screen manufacturer; with permanently lubricated ball bearings, automatic thermal-overload protection, preset limit switches to automatically stop screen in up and down positions, and positive-stop action to prevent coasting. Mount motor inside roller with vibration isolators to reduce noise transmission.
 - 4. Controls: Remote, key-operated, three-position control switch installed in recessed device box with flush cover plate matching other electrical device cover plates in room where switch is installed.
 - a. Provide with one (1) wired control switch.
 - b. Provide power supply for low-voltage systems if required.
 - 5. Surface-Mounting Configuration: Mounted directly to wall with floating mounting brackets.
 - 6. Screen Case Color: As selected by Architect and Owner from manufacturer's entire range.
 - 7. Free-Hanging, Matte Viewing Surface: White, 1.0 minimum peak gain and 60-degree minimum half-gain angle.
 - a. Edge Treatment: Black masking borders.
 - 8. Size of Viewing Surface: 58 by 104 inches.

2.3 PROJECTOR

- A. 4K UHD Laser Projector with HDR10+ and UltraBlack Technology. Furnish with compatible ceiling mounting bracket.
 - 1. Basis-of-Design: **Epson, Pro Cinema LS12000**
 - 2. Products: Subject to compliance with requirements, equal products may be incorporated into the Work.

2.4 RGBW MOTORIZED TRACK LIGHTS

- A. T LED, 70 Watt RGBW with 540-degree pan range, 270-degree tilt range, fourteen (14) channel control either standalone, DMX, or master/satellite.
 - 1. Basis-of-Design: **Monoprice Stage Right Stage Wash 7x10 RGBW**

2. Products: Subject to compliance with requirements, equal products may be incorporated into the Work.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Install audio visual equipment at locations indicated on Drawings to comply with manufacturer's written instructions.
- B. Install front-projection screens with screen cases in position and in relation to adjoining construction indicated. Securely anchor to supporting substrate in a manner that produces a smoothly operating screen that, when lowered, has flat view surface and plumb vertical edges.
 1. Install low-voltage controls according to NFPA 70 and complying with manufacturer's written instructions.
 - a. Wiring Method: Install wiring in raceway except in accessible ceiling spaces and in gypsum board partitions where unenclosed wiring method may be used. Use UL-listed plenum cable in environmental air spaces, including plenum ceilings. Conceal raceway and cables except in unfinished spaces.
 2. Test electrically operated units to verify that screen controls, limit switches, closures, and other operating components are in optimum functioning condition.
- C. Securely mount projector to ceiling bracket per manufacturer's requirements. Mount bracket to building structure per both bracket and projector specifications.

3.2 USER TRAINING

- A. Contractor will provide in-depth training in operation and regular maintenance of all systems and on all equipment included in the scope of work contained in this specification and the AV large format drawings.

END OF SECTION 274100



Acumen® – A Smart Choice

Elegant Screens for All Settings



Acumen E



Designed with maximum flexibility in mind, the new Acumen® series of surface mounted projection screens is a smart choice. This series addresses varying surrounding environment conditions and complements any room design.

An elegant, extruded aluminum housing with an attractive finish adds polish to this below-ceiling screen so Acumen looks great even when not in use.

Floating mounting brackets and removable fascia allow for easy installation and maintenance. No wiring necessary with battery-operated options that further reduce installation costs.

Confident in the quality of the Acumen, Draper® stands behind it with an extended 7-year warranty.*

CORE SOLUTION

- Sizes up to 18' wide.
- Available with a variety of motors, including quiet and low voltage options.
- Optional rechargeable battery motor in sizes to 10' wide.
- Also available as a manual screen.
- Extruded aluminum housing with white powder coated or optional black finish.
- Removable fascia, floating mounting brackets, and ceiling suspension brackets allow for easy installation and serviceability.
- Extended 7-year warranty.*
- Available in a broad line of Draper screen materials including TecVision®.
- Acumen E or V and Acumen XL E or V ship standard with built-in LVC – IV.
- Patent Pending.

*In the USA and Canada.

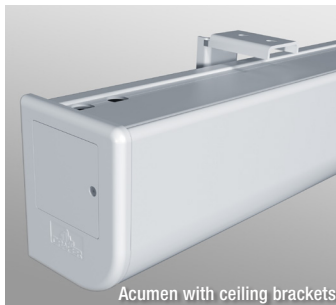
FOCUSED ON INNOVATIVE SOLUTIONS

ACUMEN FAMILY OF PROJECTOR SCREENS

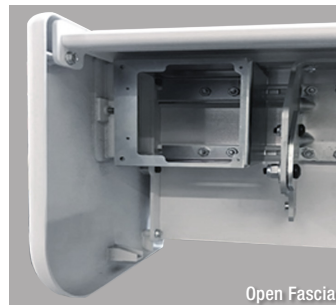
- **Acumen V:** Electric screen with tab-tensioned viewing surfaces, sizes through 10' wide. Standard, quiet, and low-voltage motors are available.
- **Acumen E:** This electric screen matches the Acumen V, but with free-hanging viewing surfaces.
- **Acumen Recharge V:** Brings maximum flexibility to electric projection screens. Rechargeable with no wiring required for power or control, it installs just like a manual screen. All controls are wireless: add an optional hub and it can be controlled with a mobile app, Google Home, or Alexa. Each charge lasts approximately 500 cycles. Sizes through 10' wide, with choice of tab-tensioned viewing surfaces.
- **Acumen Recharge E:** All of the features of the Acumen Recharge V, but with free-hanging viewing surfaces.
- **Acumen XL V:** Like the Acumen V, but in larger sizes and with a larger housing. Tab-tensioned surfaces, in sizes through 18' wide. Standard and low-voltage motors available.
- **Acumen XL E:** Electric screen with free-hanging viewing surfaces, in sizes through 18' wide. Standard and low-voltage motor options.
- **Acumen M:** Manual version of the Acumen, in sizes through 12' wide. Spring-roller operation and free-hanging viewing surfaces.
- Products are available with all Draper free-hanging and tab-tensioned viewing surfaces including the award-winning **TecVision**.



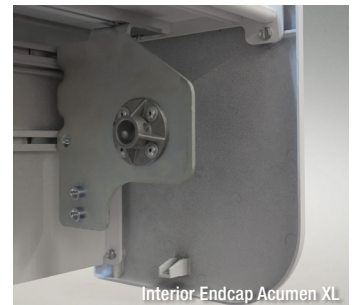
Acumen and Acumen XL



Acumen with ceiling brackets



Open Fascia



Interior Endcap Acumen XL



Acumen M

Pro Cinema LS12000 4K PRO-UHD^{®1} Laser Projector

3-Chip 3LCD with HDR10+²
and UltraBlack™ Technology

Projectors

4K PRO-UHD



Theater. Redefined.

4K PRO-UHD¹ — Advanced pixel-shifting technology works in parallel with three individual high-definition LCD chips to produce an exceptionally sharp 4K picture without sacrificing picture brightness

Precision Shift Glass Plate Technology — Unique digitally controlled Precision Shift Glass Plate precisely refracts pixel light to display a 3840 x 2160, 8.29-million-pixel image for an exceptionally sharp and clear 4K picture

Epson® ZX Picture Processor — Our most advanced video processing technology to date, the proprietary 36-bit Epson ZX Picture Processor handles real-time color, contrast, HDR², frame interpolation and resolution enhancement to faithfully reproduce the source material the way it was intended to be shown

Laser Array Light Source — True multi-array laser diodes produce an ideal light source to power the unique 3-Chip 3LCD Projector Engine for quick turn-on, incredible picture brightness, black contrast and color accuracy

High Picture Brightness — Impressive 2,700 lumens of color and 2,700 lumens of white brightness³ for an exceptional picture in virtually any theater environment – even in rooms with ambient light

True 3-Chip 3LCD Projector Engine — Advanced 3LCD technology uses three individual LCD chips to continuously display 100% of the RGB color signal for every frame. This allows for outstanding color gamut while maintaining excellent brightness without any rainbowning or color brightness issues seen with other projection technologies

Impressive HDR — Full 10-bit HDR² color processing accepting 100% of the HDR source information to faithfully reproduce HDR, HDR10+ and HLG (Hybrid Log Gamma) content for an exceptional visual performance. Real-time HDR curve adjustment allows for 16 steps of control to fine-tune the HDR performance regardless of the content

120 Hz Refresh Rate — Refresh rates up to 120 Hz allow for smoother motion for supported content while providing the option for impressive Frame Interpolation for content below 120 Hz



¹ 4K Resolution Enhancement Technology shifts each pixel to produce an image on screen, up to the stated specification.

Pro Cinema LS12000 4K PRO-UHD^{®1} Laser Projector

3-Chip 3LCD Laser Projector with HDR10+² and UltraBlack™ Technology

Specifications

Projection System Epson 3LCD
Chip Design (Architecture) 3-Chip
Light Source True Laser Diode Array
Projection Method Front, Front-Ceiling, Rear, Rear-Ceiling
Product Color Black
Driving Method Poly-silicon TFT Active Matrix, 0.74"-wide panel, 12-bit
Output Resolution 4K PRO-UHD¹ 3840 x 2160 (dual-axis: 1920 x 1080)
Maximum Input Resolution 4096 x 2160
Maximum Refresh Rate 120 Hz
Supported Resolutions 4K 2160p, 2K Full HD 1080p/i, HD 720p, 576p/i, 480p/i
Native Aspect Ratio 16:9 widescreen
Resize Aspect Ratio Support 1.9:1 (4096 x 2160), 21:9 (2560 x 1080), 4:3 (1600 x 1200), 9:6 (720 x 480), 5:4 (720 x 576); compatible with Normal, Full or Zoom Modes
Color Brightness³ Color Light Output: 2,700 lumens
White Brightness³ White Light Output: 2,700 lumens
Contrast Ratio Up to and over 2,500,000:1, Auto Iris on
White Balance 14-point temperature adjustment
Color Reproduction Full-color (up to 1.07 billion colors)
Size (Projected Distance) 50" to 300" (at 58" to 62.4")
Keystone Correction Vertical/Horizontal: ± 30 degrees
HDR Color Processing Full 10-bit
Epson ZX Picture Processor Full 12-bit
Light Source Life⁵
Normal Mode: Up to 20,000 hours
Medium Mode: Up to 20,000 hours
Eco Mode: Up to 20,000 hours

Projection Lens

Epson VRX Lens 15-element precision glass structure (AGS)
Type Powered focus/optical zoom/lens position
F-number 2.0 – 3.0
Focal Length 22.5 – 46.7 mm
Zoom Ratio 1 – 2.1
Throw Ratio Range 1.35 – 2.84
Lens Shift
Vertical: -96.3% to +96.3% (H center, powered)
Horizontal: -47.1% to +47.1% (V center, powered)
Lens Cover Powered, slide lens shutter

Interfaces

2x HDMI[®] 2.1 (HDCP 2.3); one supporting eARC/ARC
1x USB Type-A (for optical HDMI cable, 300 mA maximum power supply only)
1x USB Type-A 5 V, 2.0 A for power and firmware
1x Mini USB (service only)
1x LAN RJ45
1x RS-232C
1x Trigger out (On, Off) 12 V DC, 200 mA maximum



Other Features

Dynamic Range Support HDR10², HDR10+², HLG
HDR² Adjustment 16 steps, real-time
Color Modes Dynamic, Vivid, Bright Cinema, Cinema, Natural, B&W Cinema
Aspect Adjustment Yes (Auto/Full/Zoom/Anamorphic Wide/Horizontal Squeeze)
Anamorphic Lens Option Compatible with third party; Anamorphic Lens Kit sold separately
Frame Interpolation Input up to 4K at 60 Hz, output up to 4K at 120 Hz
eARC Audio Compatibility LPCM, supports Dolby[®] Digital AC-3, Dolby Digital Plus, Dolby TrueHD, Dolby Atmos, DTS, DTS-HD, DTS-HD High Resolution Audio, Master Audio, DTS:X, AAC
ARC Audio Compatibility LPCM, Dolby Digital (AC-3), DTS, AAC
Computer Compatibility PC, Mac[®]
Operating Temperature 41° to 95° F (5° to 35° C)
Power Supply Voltage 100 – 240 VAC ± 10%, 50/60 Hz
Power Consumption
Normal Mode: 311 W
Medium Mode: 243 W
Eco Mode: 204 W
Fan Noise 22 – 30 dB
Security Kensington[®] security lock port
Parental Controls Power Button Lock hinders projector from being turned on without parental supervision
Dimensions (W x D x H)
Projector, including feet (excluding cable cover)
20.5" x 17.6" x 7.6"
Weight: 28.0 lb
Packaging: 27.8" x 21.9" x 16.0"
Weight: 50.8 lb

Remote Control

Features Front and rear directional
Operating Distance 32 ft (10 m)
Operating Angle
Front Right/Left: ± 30 degrees
Upper/Lower: ± 30 degrees
Rear Right/Left: ± 30 degrees
Upper/Lower: 0 + 60 degrees

Support

Epson ConnectionSM
Pre-sales support: U.S: 800-463-7766, Canada: 800-807-7766
Website: U.S: www.epson.com, Canada: www.epson.ca
Service Programs 3-year projector limited warranty, Extra CareSM Home Service program, PrivateLine[®] dedicated toll-free support (U.S. and Canada only)

What's in the Box

Pro Cinema LS12000 projector, ceiling mount, cable cover, power cord, remote control with (2) AA batteries, Quick Setup Guide

Eco Features

RoHS compliant
Recyclable product⁶
Epson America, Inc. is a SmartWay[®] Transport Partner⁷

Ordering Information

Pro Cinema LS12000 V11HA47020MB
Replacement Air Filter ELPAF62 V13H134AB0

		YCbCr								
Resolution	Refresh Rate (Hz)	4:2:0			4:2:2			4:4:4		
		8	10	12	8	10	12	8	10	12
3840 x 2160	30	Signal does not exist			SDR	HDR*	HDR*	SDR	HDR*	HDR*
3840 x 2160	60	SDR	HDR*	HDR*	SDR	HDR*	HDR*	SDR	HDR*	HDR*
3840 x 2160	120	SDR	SDR	-	SDR	HDR*	HDR*	SDR	-	-

*HDR: Support for HDR10, HDR10+ and HLG. For more information, visit epson.com/hdrcompatibility

All images simulated.

1 4K Resolution Enhancement Technology shifts each pixel to produce an image on screen, up to the stated specification. | 2 HDR/HDR10+ performance available with select third-party devices. For more information, see www.epson.com/hdrcompatibility | 3 Color brightness (color light output) and white brightness (white light output) will vary depending on usage conditions. Color light output measured in accordance with IDMS 15.4; white light output measured in accordance with ISO 21118. | 4 Based on TFCinfo: U.S. Projector Brand Customer Perception and Preference Study, Multimedia Projectors 2019. | 5 No required maintenance for the light source for up to 20,000 hours. Approximate time until brightness decreases 50% from first usage. Measured by acceleration test assuming use of 0.04 - 0.20 mg/m³ of particulate matter. Time varies depending on usage conditions and environment. Replacement of parts other than the light source may be required in a shorter period. | 6 For convenient and reasonable recycling options, visit www.epson.com/recycle | 7 SmartWay is an innovative partnership of the U.S. Environmental Protection Agency that reduces greenhouse gases and other air pollutants and improves fuel efficiency.

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Stage Right by Monoprice Stage Wash 7x 10W RGBW LED Moving Head Light

Product # 612870

UPC # 889028066270

5 Reviews | 11 Questions, 10 Answers

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\$129.99	\$124.79	\$122.19	\$119.59	\$116.99

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\$219.99



★★★★☆ (32)
Stage Right by Monoprice 7x 81 LED PAR RGBW Wash Stage Lig
\$89.99

Description

Full Specs

Questions & Answers

Customer Reviews

Model	612870
Light Source	LED
Number of LEDs	7
LED Size	10 watts
Light Output	70 watts
Light Colors	RGBW
Pan Range	540°
Tilt Range	270°
Dimming	0 ~ 100%
Strobe Function	No
Zoom Function	No
Control Modes	Standalone, DMX, Master/Slave
Number of DMX Channels	9 or 14
DMX Connectors	3-pin (in and out)
Outdoor Rating	None
Input Power	90 ~ 240 VAC, 50/60 Hz
Maximum Power Consumption	80 watts
Input Power Connector	IEC 60320 C14
Passthrough Power Connector	None
Dimensions	11.8" x 9.4" x 9.4" (300 x 240 x 240 mm)