

**PROJECT MANUAL**  
*for*  
**FORUM RENOVATIONS PROJECT**



115 EAST MONROE AVENUE  
JONESBORO, ARKANSAS 72401

OWNER'S BID NO. 2019:22  
ARCHITECT PROJECT NO. 1808

ISSUE FOR BIDDING  
APRIL 15, 2019



COOPER MIXON ARCHITECTS PLLC  
505 UNION STREET, 2ND FLOOR  
JONESBORO, ARKANSAS 72401



**SECTION 00 0102**  
**PROJECT INFORMATION**

**PART 1 GENERAL**

**1.01 PROJECT IDENTIFICATION**

- A. Project Name: CITY OF JONESBORO - FORUM RENOVATIONS PROJECT, located at: 115 East Monroe Avenue, Jonesboro, AR 72401
- B. Owner's Bid Number: 2019:22  
Forum Theater.  
115 E. Monroe Ave..  
Jonesboro, AR 72401.
- C. The Owner, hereinafter referred to as Owner: CITY OF JONESBORO
- D. Owner's Project Manager: Ronnie Shaver.
  - 1. Department: Facilities Maintenance Director.
  - 2. Phone/Fax: 870-933-4607.
  - 3. E-mail: rshaver@jonesboro.org.

**1.02 NOTICE TO PROSPECTIVE BIDDERS**

- A. These documents constitute an Invitation to Bid to General Contractors for the construction of the project described below.

**1.03 PROJECT DESCRIPTION**

- A. Summary Project Description: Interior renovation of the main entry, ticket booth, and mezzanine level concessions.
- B. Contract Scope: Construction, demolition, renovation, and facility operations during occupancy.
- C. Contract Terms: Lump sum (fixed price, stipulated sum).
- D. The currently occupied premises at the project site are open for examination by bidders only during the following hours:
  - 1. Tuesday through Friday: 9 AM to 4 PM.

**1.04 PROJECT CONSULTANTS**

- A. The Architect, hereinafter referred to as Architect: John Mixon, Cooper Mixon Architects PLLC.
  - 1. Address: 505 Union Street, 2nd Floor.
  - 2. City, State, Zip: Jonesboro, AR 72401.
  - 3. Phone/Fax: 870-336-0536.
  - 4. E-mail: jmixon@coopermixon.com.

**1.05 PROCUREMENT TIMETABLE**

- A. Pre-Bid Site Tour: Thursday, April 30, 2019 at 9 AM.
- B. Last Request for Substitution Due: 3 days prior to due date of bids.
- C. Last Request for Information Due: 3 days prior to due date of bids.
- D. Bid Due Date: Thursday, May 14, 2019, before 2 PM local time.
- E. Bid Opening: Same day, 2 PM local time.
- F. Notice to Proceed: Within 7 days after due date.
- G. Bids May Not Be Withdrawn Until: 30 days after due date.
- H. Desired Final Completion Date: Not later than August 31, 2019.
- I. Completion date is critical due to requirements of Owner's operations.
- J. The Owner reserves the right to change the schedule or terminate the entire procurement process at any time.

**1.06 PROCUREMENT DOCUMENTS**

- A. Availability of Documents: Complete sets of procurement documents may be obtained:
  - 1. At the following address: Jonesboro Blueprint, 222 Madison Street, Jonesboro, Arkansas.
  - 2. For the deposit sum of \$50, which will be refunded upon return of documents in accordance with the requirements of the Instructions to Bidders.
- B. Documents may be viewed at Jonesboro Blueprint.

**1.07 BID SECURITY**

- A. Bids shall be accompanied by a security deposit as follows:
  - 1. Security made payable to Owner in an amount of five percent of proposer's maximum proposal price.

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**END OF SECTION 00 0115**





**SECTION 00 1113**  
**ADVERTISEMENT FOR BIDS**

**FROM:**

**1.01 THE OWNER (HEREINAFTER REFERRED TO AS OWNER):**

- A. CITY OF JONESBORO
- B. Address:  
Purchasing Department, Room 421  
City Hall, 300 S. Church Street  
Jonesboro, AR, 72401

**1.02 AND THE ARCHITECT (HEREINAFTER REFERRED TO AS ARCHITECT):**

- A. COOPER MIXON ARCHITECTS PLLC
- B. Address:  
505 Union Street, 2nd Floor  
Jonesboro, AR 72401

**1.03 TO: POTENTIAL BIDDERS**

- A. Your firm is invited to submit an offer under seal to Owner at Purchasing Department, Room 421, City Hall, 300 S. Church St. for construction of a renovation project located at:  
Forum Theater  
115 E. Monroe Ave.  
Jonesboro, AR 72401  
  
Before 2:00 pm local standard time on the 14th day of May, 2019, for:
- B. Project: CITY OF JONESBORO - FORUM RENOVATIONS PROJECT
- C. and then publicly opened and read in the Third Floor Conference Room.
- D. All Submissions shall be annotated on the outside of the envelope with the bid number 2019:22.
- E. A Mandatory Pre-Bid Conference will be held on the 30th day of April, 2019 at the Project Location.
- F. All bidders are required to prequalify to the requirements described in Document 00 2113 - Instructions to Bidders.
- G. Project Description: Interior renovation of the main entry, ticket booth, and mezzanine level concessions.
- H. Bid Documents for a Stipulated Sum contract may be obtained from the office of the Jonesboro Blueprint, 222 Madison St., Jonesboro, AR 72401 free of charge upon receipt of a refundable deposit, by cash, in the amount of \$50 for one set.
- I. Documents may be obtained only by general contract and subcontract Bidders. Others may view the Bid Documents at Jonesboro Blueprint.
- J. Bidders will be required to provide Bid security in the form of a Bid Bond of a sum no less than 5 percent of the Bid Amount.
- K. The successful Bidder must furnish a performance and payment bond upon the form provided in the amount of one hundred percent (100%) of the contract price from an approved surety company holding a permit from the State of Arkansas to act as surety, or other surety or sureties acceptable to the Owner.
- L. Refer to other bidding requirements described in Document 00 2113 - Instructions to Bidders and Document 00 3100 - Available Project Information.
- M. Submit your offer on the Bid Form provided.
- N. Your offer will be required to be submitted under a condition of irrevocability for a period of 30 days after submission.

- O. The City of Jonesboro encourages participation of small, minority, and woman owned business enterprises in the procurement of goods, services, and construction, either as a general contractor or subcontractor. It is further requested that whenever possible, majority contractors who require sub-contractors seek qualified small, minority, and women owned businesses to partner with them.
- P. The Owner reserves the right to accept or reject any or all offers.

**END OF SECTION 00 1113**

**SECTION 00 2113**  
**INSTRUCTIONS TO BIDDERS**

**SUMMARY**

**1.01 SEE AIA A701, INSTRUCTIONS TO BIDDERS BOUND IN THE PROJECT MANUAL.**

**1.02 MODIFICATIONS TO AIA A701**

- A. Refer to AIA Document A701, Instructions to Bidders, 2018 Edition, for the original text of the published standard instructions to bidders with Project specific changes indicated as modified text inline with the original text. Reference to Instructions to Bidders shall be as referring to the standard text modified.

**END OF SECTION 00 2113**



# DRAFT AIA® Document A701™ - 2018

## Instructions to Bidders

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

«Forum Renovation»  
«115 East Monroe Avenue, Jonesboro, Arkansas»  
«The scope of the project is the renovation of the ticket booth on the first floor to accommodate concession sales and the renovation of the kitchen on the second floor to accommodate concessions.»

**THE OWNER:**  
(Name, legal status, address, and other information)

«City of Jonesboro, Arkansas»«Other»  
«300 South Church Street  
Jonesboro, AR 72401»  
«Telephone Number: 870-932-1052»  
«»

**THE ARCHITECT:**  
(Name, legal status, address, and other information)

«Cooper Mixon Architects, PLLC»«Professional Limited Liability Company»  
«505 Union Street  
2nd Floor  
Jonesboro, AR 72401»  
«Telephone Number: 870-336-0536»  
«»

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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.



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## 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.)*

« [John Mixon, Cooper Mixon Architects PLLC](mailto:jmixon@coopermixon.com)  
[jmixon@coopermixon.com](mailto:jmixon@coopermixon.com) »

§ 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.)*

<< **Bid security shall be in the amount of 5% of the Base Bid.** >>

§ 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~~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~~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~~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~~The bonds shall be written on AIA Document A312, Performance Bond and Payment Bond. Extent of Performance Bond and the Labor and Material Payment Bond shall each be written in the amount equal to 100 percent of the Contract Sum. (Arkansas §§19-4-1405 et seq., §§22-9-401 et seq., §§18-44-501 et seq.)

§ 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.)*

<< >>



**SECTION 00 3100**  
**AVAILABLE PROJECT INFORMATION**

**PART 1 GENERAL**

**1.01 EXISTING CONDITIONS**

- A. Certain information relating to existing surface and subsurface conditions and structures is available to bidders but and included within the Project Manual immediately following, as follows:
- B. Hazardous Material Survey: Entitled ASBESTOS ANALYTICAL REPORT By: Polarized Light Microscopy Prepared for City of Jonesboro, dated 04/15/19.
  - 1. Original copy is available for inspection at Owner's offices during normal business hours.
- C. The following drawings are at the office of the Architect and available for review:
  - 1. Forum Civic Convention Center - As Built 6-11-79

**PART 2 PRODUCTS (NOT USED)**

**PART 3 EXECUTION (NOT USED)**

**END OF SECTION 00 3100**



April 15, 2019

City of Jonesboro  
300 S. Church  
Jonesboro, AR 72401

**CLIENT PROJECT:** Forum Theater, 155 E. Monroe  
**CEI LAB CODE:** A197529

Dear Customer:

Enclosed are asbestos analysis results for PLM Bulk samples received at our laboratory on April 5, 2019. The samples were analyzed for asbestos using polarizing light microscopy (PLM) per the EPA 600 Method.

Sample results containing >1% asbestos are considered asbestos-containing materials (ACMs) per EPA regulatory requirements. The detection limit for the EPA 600 Method is <1% asbestos by weight as determined by visual estimation.

Thank you for your business and we look forward to continuing good relations.

Kind Regards,



Tianbao Bai, Ph.D., CIH  
Laboratory Director



CEI

---

# ASBESTOS ANALYTICAL REPORT

## By: Polarized Light Microscopy

Prepared for

**City of Jonesboro**

---

CLIENT PROJECT: Forum Theater, 155 E. Monroe

LAB CODE: A197529

TEST METHOD: EPA 600 / R93 / 116 and EPA 600 / M4-82 / 020

REPORT DATE: 04/15/19

TOTAL SAMPLES ANALYZED: 9

# SAMPLES >1% ASBESTOS:





CEI

# Asbestos Report Summary

By: POLARIZING LIGHT MICROSCOPY

PROJECT: Forum Theater, 155 E. Monroe

LAB CODE: A197529

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---

**METHOD: EPA 600 / R93 / 116 and EPA 600 / M4-82 / 020**

Client ID	Layer	Lab ID	Color	Sample Description	ASBESTOS %
115-01-01		A106984	Beige	VCT	None Detected
115-01-02		A106985	Beige	VCT	None Detected
115-01-03		A106986	Beige	VCT	None Detected
115-02-04		A106987A	Gray	Sheet Vinyl Flooring	None Detected
		A106987B	Yellow	Mastic	None Detected
115-02-05		A106988A	Gray	Sheet Vinyl Flooring	None Detected
		A106988B	Yellow	Mastic	None Detected
115-02-06		A106989A	Gray	Sheet Vinyl Flooring	None Detected
		A106989B	Yellow	Mastic	None Detected
115-03-07		A106990	Gray,White	Drywall/Mud	None Detected
115-03-08		A106991	Gray,White	Drywall/Mud	None Detected
115-03-09		A106992	Gray,White	Drywall/Mud	None Detected

# ASBESTOS BULK ANALYSIS

By: POLARIZING LIGHT MICROSCOPY

**Client:** City of Jonesboro  
 300 S. Church  
 Jonesboro, AR 72401

**Lab Code:** A197529  
**Date Received:** 04-05-19  
**Date Analyzed:** 04-15-19  
**Date Reported:** 04-15-19

**Project:** Forum Theater, 155 E. Monroe

## ASBESTOS BULK PLM, EPA 600 METHOD

Client ID Lab ID	Lab Description	Lab Attributes	NON-ASBESTOS COMPONENTS				ASBESTOS %
			Fibrous		Non-Fibrous		
115-01-01 A106984	VCT	Heterogeneous			80%	Vinyl	None Detected
		Beige			20%	Silicates	
		Non-fibrous Bound					
115-01-02 A106985	VCT	Heterogeneous			80%	Vinyl	None Detected
		Beige			20%	Silicates	
		Non-fibrous Bound					
115-01-03 A106986	VCT	Heterogeneous			80%	Vinyl	None Detected
		Beige			20%	Silicates	
		Non-fibrous Bound					
115-02-04 A106987A	Sheet Vinyl Flooring	Heterogeneous	15%	Cellulose	50%	Vinyl	None Detected
		Gray	10%	Fiberglass	25%	Binder	
		Fibrous Bound					
A106987B	Mastic	Heterogeneous	2%	Cellulose	98%	Mastic	None Detected
		Yellow Fibrous Bound					
115-02-05 A106988A	Sheet Vinyl Flooring	Heterogeneous	15%	Cellulose	50%	Vinyl	None Detected
		Gray	10%	Fiberglass	25%	Binder	
		Fibrous Bound					
A106988B	Mastic	Heterogeneous	2%	Cellulose	98%	Mastic	None Detected
		Yellow Fibrous Bound					

# ASBESTOS BULK ANALYSIS

By: POLARIZING LIGHT MICROSCOPY

**Client:** City of Jonesboro  
 300 S. Church  
 Jonesboro, AR 72401

**Lab Code:** A197529  
**Date Received:** 04-05-19  
**Date Analyzed:** 04-15-19  
**Date Reported:** 04-15-19

**Project:** Forum Theater, 155 E. Monroe

## ASBESTOS BULK PLM, EPA 600 METHOD

Client ID Lab ID	Lab Description	Lab Attributes	NON-ASBESTOS COMPONENTS				ASBESTOS %
			Fibrous		Non-Fibrous		
<b>115-02-06</b> A106989A	Sheet Vinyl Flooring	Heterogeneous	15%	Cellulose	50%	Vinyl	None Detected
		Gray Fibrous Bound	10%	Fiberglass	25%	Binder	
A106989B	Mastic	Heterogeneous	2%	Cellulose	98%	Mastic	None Detected
		Yellow Fibrous Bound					
<b>115-03-07</b> A106990	Drywall/Mud	Heterogeneous	15%	Cellulose	15%	Calc Carb	None Detected
		Gray,White Fibrous Bound			70%	Gypsum	
<b>115-03-08</b> A106991	Drywall/Mud	Heterogeneous	15%	Cellulose	15%	Calc Carb	None Detected
		Gray,White Fibrous Bound			70%	Gypsum	
<b>115-03-09</b> A106992	Drywall/Mud	Heterogeneous	15%	Cellulose	15%	Calc Carb	None Detected
		Gray,White Fibrous Bound			70%	Gypsum	

---

**LEGEND:** Non-Anth = Non-Asbestiform Anthophyllite  
Non-Trem = Non-Asbestiform Tremolite  
Calc Carb = Calcium Carbonate

---

**METHOD:** EPA 600 / R93 / 116 and EPA 600 / M4-82 / 020

---

**REPORTING LIMIT:** <1% by visual estimation

---

**REPORTING LIMIT FOR POINT COUNTS:** 0.25% by 400 Points or 0.1% by 1,000 Points

---

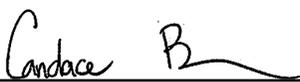
**REGULATORY LIMIT:** >1% by weight

---

Due to the limitations of the EPA 600 method, nonfriable organically bound materials (NOBs) such as vinyl floor tiles can be difficult to analyze via polarized light microscopy (PLM). EPA recommends that all NOBs analyzed by PLM, and found not to contain asbestos, be further analyzed by Transmission Electron Microscopy (TEM). Please note that PLM analysis of dust and soil samples for asbestos is not covered under NVLAP accreditation. *Estimated measurement of uncertainty is available on request.*

This report relates only to the samples tested or analyzed and may not be reproduced, except in full, without written approval by Eurofins CEI. Eurofins CEI makes no warranty representation regarding the accuracy of client submitted information in preparing and presenting analytical results. Interpretation of the analytical results is the sole responsibility of the client. Samples were received in acceptable condition unless otherwise noted. This report may not be used by the client to claim product endorsement by NVLAP or any other agency of the U.S. Government.

Information provided by customer includes customer sample ID, location, volume and area as well as date and time of sampling.

**ANALYST:**   
Candace Burrus

**APPROVED BY:**   
Tianbao Bai, Ph.D., CIH  
Laboratory Director



CEI

# CHAIN OF CUSTODY

730 SE Maynard Road, Cary, NC 27511  
 Tel: 866-481-1412; Fax: 919-481-1442

<b>LAB USE ONLY:</b>	
ECEI Lab Code:	A197529 (9)
ECEI Lab I.D. Range:	A106984-A106992

COMPANY INFORMATION	PROJECT INFORMATION
<b>ECEI CLIENT #:</b>	Job Contact: Mike Tyner
Company: City of Jonesboro - Code Enforcement	Email / Tel: mtyner@jonesboro.org / 870-933-4658
Address: P.O. Box 1845	Project Name: Forum Theater
Jonesboro, AR 72403	Project ID#: 115 E. Monore
Email: mtyner@jonesboro.org	PO #:
Tel: 870-933-4658 Fax:	<b>STATE SAMPLES COLLECTED IN: Arkansas</b>

**IF TAT IS NOT MARKED STANDARD 3 DAY TAT APPLIES.**

ASBESTOS	METHOD	TURN AROUND TIME					
		4 HR	8 HR	1 DAY	2 DAY	3 DAY	5 DAY
PLM BULK	EPA 600	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PLM POINT COUNT (400)	EPA 600	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PLM POINT COUNT (1000)	EPA 600	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PLM GRAV w POINT COUNT	EPA 600	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PLM BULK	CARB 435	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PCM AIR*	NIOSH 7400	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEM AIR	EPA AHERA	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEM AIR	NIOSH 7402	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEM AIR (PCME)	ISO 10312	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEM AIR	ASTM 6281-15	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEM BULK	CHATFIELD	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEM DUST WIPE	ASTM D6480-05 (2010)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEM DUST MICROVAC	ASTM D5755-09 (2014)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEM SOIL	ASTM D7521-16	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEM VERMICULITE	CINCINNATI METHOD	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEM QUALITATIVE	IN-HOUSE METHOD	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
OTHER:		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

\*Blanks should be taken from the same sample lot as field samples.

REMARKS / SPECIAL INSTRUCTIONS:		<input checked="" type="checkbox"/> Accept Samples
		<input type="checkbox"/> Reject Samples
<b>Relinquished By:</b>	<b>Date/Time</b>	<b>Received By:</b>
Mike Tyner, City of Jonesboro <i>mt</i>	4-3-19 / 13:00	<i>KC</i>
		4/5/19 3:00PM

By submitting samples, you are agreeing to ECEI's Terms and Conditions.  
 Samples will be disposed of 30 days after analysis



**SECTION 00 4000**  
**PROCUREMENT FORMS AND SUPPLEMENTS**

**PART 1 GENERAL**

**1.01 FORMS**

- A. Use the following forms for the specified purposes unless otherwise indicated elsewhere in the procurement requirements.
- B. Instructions to Bidders: AIA A701.
- C. Substitution Request Form (During Procurement): 00 4325 - Substitution Request Form - During Procurement, \_\_\_\_\_.
- D. Bid Form: Section 00 4100 - Bid Form.
- E. Procurement Form Supplements:
  - 1. Bid Security Form: AIA A310.
  - 2. Proposed Schedule of Values Form: AIA G703.
- F. Representations and Certifications:
  - 1. Bidder's Qualifications: AIA A305.

**1.02 REFERENCE STANDARDS**

- A. AIA A305 - Contractor's Qualification Statement; 1986.
- B. AIA A310 - Bid Bond; 2010.
- C. AIA A701 - Instructions to Bidders; 1997.
- D. AIA G703 - Continuation Sheet; 1992.

**PART 2 PRODUCTS - NOT USED**

**PART 3 EXECUTION - NOT USED**

**END OF SECTION 00 4000**





**SECTION 00 4100  
BID FORM**

**THE PROJECT AND THE PARTIES**

**1.01 TO:**

- A. CITY OF JONESBORO (Owner)  
Forum Theater  
115 E. Monroe Ave.  
Jonesboro, AR 72401

**1.02 FOR:**

- A. Project: CITY OF JONESBORO - FORUM RENOVATIONS PROJECT
- B. Architect's Project Number: 1808
- C. Owner's Bid Number: 2019:22  
Forum Theater  
115 E. Monroe Ave.  
Jonesboro, AR 72401

**1.03 DATE: \_\_\_\_\_ (BIDDER TO ENTER DATE)**

**1.04 SUBMITTED BY: (BIDDER TO ENTER NAME AND ADDRESS)**

- A. Bidder's Full Name \_\_\_\_\_
  - 1. Address \_\_\_\_\_
  - 2. City, State, Zip \_\_\_\_\_

**1.05 OFFER**

- A. Having examined the Place of The Work and all matters referred to in the Instructions to Bidders and the Bid Documents prepared by Cooper Mixon Architect PLLC for the above mentioned project, we, the undersigned, hereby offer to enter into a Contract to perform the Work for the Sum of:
- B. \_\_\_\_\_ dollars  
(\$ \_\_\_\_\_), in lawful money of the United States of America.
- C. We have included the required security Bid Bond as required by the Instruction to Bidders.
- D. All applicable federal taxes are included and State of Arkansas taxes are included in the Bid Sum.
- E. All Cash Allowances described in Section 01 2100 - Allowances are included in the Bid Sum as follows:
  - 1. Section [08 7100 - Door Hardware]: Include the stipulated sum of \$[1000] for purchase, delivery, and installation of [Door hardware not specified in other sections and locking hardware for millwork].

**1.06 ACCEPTANCE**

- A. This offer shall be open to acceptance and is irrevocable for thirty days from the bid closing date.
- B. Power of Attorney for Bid Bond and Bid Security shall be included with bid form.
- C. If this bid is accepted by Owner within the time period stated above, we will:
  - 1. Execute the Agreement within seven days of receipt of Notice of Award.
  - 2. Furnish the required bonds within seven days of receipt of Notice of Award.
  - 3. Commence work within seven days after written Notice to Proceed of this bid.
- D. If this bid is accepted within the time stated, and we fail to commence the Work or we fail to provide the required Bond(s), the security deposit shall be forfeited as damages to Owner by

reason of our failure, limited in amount to the lesser of the face value of the security deposit or the difference between this bid and the bid upon which a Contract is signed.

- E. In the event our bid is not accepted within the time stated above, the required security deposit shall be returned to the undersigned, in accordance with the provisions of the Instructions to Bidders; unless a mutually satisfactory arrangement is made for its retention and validity for an extended period of time.

**1.07 CONTRACT TIME**

- A. If this Bid is accepted, we will:
- B. Complete the Work by the 31st day of August, 2019.

**1.08 ADDENDA**

- A. The following Addenda have been received. The modifications to the Bid Documents noted below have been considered and all costs are included in the Bid Sum.
  - 1. Addendum # \_\_\_\_\_ Dated \_\_\_\_\_.
  - 2. Addendum # \_\_\_\_\_ Dated \_\_\_\_\_.

**1.09 BID FORM SUPPLEMENTS**

- A. We agree to submit the following Supplements to Bid Forms within 24 hours after submission of this bid for additional bid information:
  - 1. Document 00 4325 - Substitution Request Form - During Procurement .

**1.10 BID FORM SIGNATURE(S)**

- A. The Corporate Seal of
- B. \_\_\_\_\_
- C. (Bidder - print the full name of your firm)
- D. was hereunto affixed in the presence of:
- E. \_\_\_\_\_
- F. (Authorized signing officer, Title)
- G. (Seal)
- H. \_\_\_\_\_
- I. (Authorized signing officer, Title)

**1.11 IF THE BID IS A JOINT VENTURE OR PARTNERSHIP, ADD ADDITIONAL FORMS OF EXECUTION FOR EACH MEMBER OF THE JOINT VENTURE IN THE APPROPRIATE FORM OR FORMS AS ABOVE.**

**END OF SECTION 00 4100**

**SECTION 00 4325  
SUBSTITUTION REQUEST FORM - DURING PROCUREMENT**

**ENCLOSED CSI FORM 1.5C SUBSTITUTION REQUEST (DURING THE BIDDING PHASE) -  
FOLLOWING THIS PAGE.**

**END OF SECTION 00 4325**





# SUBSTITUTION REQUEST (During the Bidding Phase)

Project: \_\_\_\_\_ Substitution Request Number: \_\_\_\_\_  
 \_\_\_\_\_  
 From: \_\_\_\_\_  
 To: \_\_\_\_\_ Date: \_\_\_\_\_  
 \_\_\_\_\_  
 Re: \_\_\_\_\_ A/E Project Number: \_\_\_\_\_  
 \_\_\_\_\_ Contract For: \_\_\_\_\_

Specification Title: \_\_\_\_\_ Description: \_\_\_\_\_  
 Section: \_\_\_\_\_ Page: \_\_\_\_\_ Article/Paragraph: \_\_\_\_\_

Proposed Substitution: \_\_\_\_\_  
 Manufacturer: \_\_\_\_\_ Address: \_\_\_\_\_ Phone: \_\_\_\_\_  
 Trade Name: \_\_\_\_\_ Model No.: \_\_\_\_\_

Attached data includes product description, specifications, drawings, photographs, and performance and test data adequate for evaluation of the request; applicable portions of the data are clearly identified.

Attached data also includes a description of changes to the Contract Documents that the proposed substitution will require for its proper installation.

The Undersigned certifies:

- Proposed substitution has been fully investigated and determined to be equal or superior in all respects to specified product.
- Same warranty will be furnished for proposed substitution as for specified product.
- Same maintenance service and source of replacement parts, as applicable, is available.
- Proposed substitution will have no adverse effect on other trades and will not affect or delay progress schedule.
- Proposed substitution does not affect dimensions and functional clearances.
- Payment will be made for changes to building design, including A/E design, detailing, and construction costs caused by the substitution.

Submitted by: \_\_\_\_\_  
 Signed by: \_\_\_\_\_  
 Firm: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 Telephone: \_\_\_\_\_

### A/E's REVIEW AND ACTION

- Substitution approved - Make submittals in accordance with Specification Section 01330.
- Substitution approved as noted - Make submittals in accordance with Specification Section 01330.
- Substitution rejected - Use specified materials.
- Substitution Request received too late - Use specified materials.

Signed by: \_\_\_\_\_

Date: \_\_\_\_\_

Supporting Data Attached:  Drawings  Product Data  Samples  Tests  Reports  \_\_\_\_\_



**SECTION 00 5000**  
**CONTRACTING FORMS AND SUPPLEMENTS**

**PART 1 GENERAL**

**1.01 AGREEMENT AND CONDITIONS OF THE CONTRACT**

- A. See Section 00 5200 - Agreement Form for the Agreement form to be executed.
- B. See Section 00 7200 - General Conditions for the General Conditions.
- C. The Agreement is based on AIA A101.
- D. The General Conditions are based on AIA A201.

**1.02 FORMS**

- A. Use the following forms for the specified purposes unless otherwise indicated elsewhere in the Contract Documents.
- B. Bond Forms:
  - 1. Bid Bond Form: AIA A310.
  - 2. Performance and Payment Bond Form: AIA A312.
- C. Post-Award Certificates and Other Forms:
  - 1. Schedule of Values Form: AIA G703.
  - 2. Application for Payment Forms: AIA G702 with AIA G703 (for Contractors).
- D. Clarification and Modification Forms:
  - 1. Architect's Supplemental Instructions Form: AIA G710.
  - 2. Construction Change Directive Form: AIA G714.
  - 3. Change Order Form: AIA G701.
- E. Closeout Forms:
  - 1. Certificate of Substantial Completion Form: AIA G704.

**1.03 REFERENCE STANDARDS**

- A. AIA A101 - Standard Form of Agreement Between Owner and Contractor where the basis of Payment is a Stipulated Sum; 2017.
- B. AIA A201 - General Conditions of the Contract for Construction; 2017.
- C. AIA A310 - Bid Bond; 2010.
- D. AIA A312 - Performance Bond and Payment Bond; 2010.
- E. AIA G701 - Change Order; 2017.
- F. AIA G702 - Application and Certificate for Payment; 1992.
- G. AIA G703 - Continuation Sheet; 1992.
- H. AIA G704 - Certificate of Substantial Completion; 2017.
- I. AIA G710 - Architect's Supplemental Instructions; 2017.
- J. AIA G714 - Construction Change Directive; 2017.

**PART 2 PRODUCTS - NOT USED**

**PART 3 EXECUTION - NOT USED**

**END OF SECTION 00 5000**





**SECTION 00 5200  
AGREEMENT FORM**

**PART 1 GENERAL**

**1.01 FORM OF AGREEMENT**

**1.02 THE AGREEMENT TO BE EXECUTED IS ATTACHED FOLLOWING THIS PAGE.**

**1.03 RELATED REQUIREMENTS**

A. Section 00 7200 - General Conditions.

**PART 2 PRODUCTS (NOT USED)**

**PART 3 EXECUTION (NOT USED)**

**END OF SECTION 00 5200**



**SECTION 00 6325**  
**SUBSTITUTION REQUEST FORM - DURING CONSTRUCTION**  
**END OF SECTION 00 6325**





# SUBSTITUTION REQUEST

(After the Bidding/Negotiating Phase)

Project: \_\_\_\_\_ Substitution Request Number: \_\_\_\_\_  
 \_\_\_\_\_  
 From: \_\_\_\_\_  
 To: \_\_\_\_\_ Date: \_\_\_\_\_  
 \_\_\_\_\_  
 A/E Project Number: \_\_\_\_\_  
 Re: \_\_\_\_\_ Contract For: \_\_\_\_\_

Specification Title: \_\_\_\_\_ Description: \_\_\_\_\_  
 Section: \_\_\_\_\_ Page: \_\_\_\_\_ Article/Paragraph: \_\_\_\_\_

Proposed Substitution: \_\_\_\_\_  
 Manufacturer: \_\_\_\_\_ Address: \_\_\_\_\_ Phone: \_\_\_\_\_  
 Trade Name: \_\_\_\_\_ Model No.: \_\_\_\_\_  
 Installer: \_\_\_\_\_ Address: \_\_\_\_\_ Phone: \_\_\_\_\_

History:  New product  1-4 years old  5-10 years old  More than 10 years old

Differences between proposed substitution and specified product: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Point-by-point comparative data attached — REQUIRED BY A/E

Reason for not providing specified item: \_\_\_\_\_  
 \_\_\_\_\_

### Similar Installation:

Project: \_\_\_\_\_ Architect: \_\_\_\_\_  
 Address: \_\_\_\_\_ Owner: \_\_\_\_\_  
 \_\_\_\_\_ Date Installed: \_\_\_\_\_

Proposed substitution affects other parts of Work:  No  Yes; explain \_\_\_\_\_  
 \_\_\_\_\_

Savings to Owner for accepting substitution: \_\_\_\_\_ (\$ \_\_\_\_\_).

Proposed substitution changes Contract Time:  No  Yes [Add] [Deduct] \_\_\_\_\_ days.

Supporting Data Attached:  Drawings  Product Data  Samples  Tests  Reports  \_\_\_\_\_



**SECTION 00 7200  
GENERAL CONDITIONS**

**FORM OF GENERAL CONDITIONS**

**1.01 THE GENERAL CONDITIONS APPLICABLE TO THIS CONTRACT IS ATTACHED FOLLOWING THIS PAGE.**

**END OF SECTION 00 7200**





**SECTION 01 1000**  
**SUMMARY**

**PART 1 GENERAL**

**1.01 PROJECT**

- A. Project Name: CITY OF JONESBORO - FORUM RENOVATIONS PROJECT
- B. Owner's Name: CITY OF JONESBORO.
- C. Architect's Name: COOPER MIXON ARCHITECTS PLLC.
- D. The Project consists of the construction of Interior renovation of the main entry, ticket booth, and mezzanine level concessions.

**1.02 CONTRACT DESCRIPTION**

- A. Contract Type: A single prime contract based on a Stipulated Price as described in Document 00 5200 - Agreement Form.

**1.03 DESCRIPTION OF ALTERATIONS WORK**

- A. Scope of alterations work is indicated on drawings.
- B. Renovate the following rooms and spaces, complete including operational mechanical and electrical work and finishes:
  - 1. Entry Vestibules.
  - 2. First Floor Ticketing Area.
  - 3. Mezzanine Concession Area.
- C. Plumbing: Alter existing system and add new construction, keeping existing in operation.
- D. HVAC: Alter existing system and add new construction, keeping existing in operation.
- E. Electrical Power and Lighting: Alter existing system and add new construction, keeping existing in operation.
- F. Fire Suppression Sprinklers: Restore existing system and equipment to operational condition.

**1.04 WORK BY OWNER**

- A. Items noted NIC (Not in Contract) will be supplied and installed by Owner after Substantial Completion. Some items include:
  - 1. Residential Equipment.
  - 2. Exterior Poster Cases.

**1.05 OWNER OCCUPANCY**

- A. Owner intends to continue to occupy portions of the existing building during the entire construction period.
- B. Owner intends to occupy the Project upon Substantial Completion.
- C. Owner intends to occupy a certain portion of the Project prior to the completion date for the conduct of normal operations.
- D. Cooperate with Owner to minimize conflict and to facilitate Owner's operations.
- E. Schedule the Work to accommodate Owner occupancy.

**1.06 CONTRACTOR USE OF SITE AND PREMISES**

- A. Arrange use of site and premises to allow:
  - 1. Owner occupancy.
  - 2. Use of site and premises by the public.
- B. Provide access to and from site as required by law and by Owner:
  - 1. Emergency Building Exits During Construction: Keep all exits required by code open during construction period; provide temporary exit signs if exit routes are temporarily altered.

2. Do not obstruct roadways, sidewalks, or other public ways without permit.
- C. Existing building spaces may not be used for storage.
- D. Utility Outages and Shutdown:
  1. Limit disruption of utility services to hours the building is unoccupied.
  2. Do not disrupt or shut down life safety systems, including but not limited to fire sprinklers and fire alarm system, without 7 days notice to Owner and authorities having jurisdiction.
  3. Prevent accidental disruption of utility services to other facilities.

**1.07 WORK SEQUENCE**

- A. Construct Work in stages during the construction period:
  1. Coordinate stages to complete the work without disrupting the Owner's Occupancy.

**END OF SECTION 01 1000**

**SECTION 01 2000**  
**PRICE AND PAYMENT PROCEDURES**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Procedures for preparation and submittal of applications for progress payments.
- B. Change procedures.

**1.02 RELATED REQUIREMENTS**

- A. Section 00 5000 - Contracting Forms and Supplements: Forms to be used.

**1.03 SCHEDULE OF VALUES**

- A. Use Schedule of Values Form: AIA G703, edition stipulated in the Agreement.
- B. Electronic media printout including equivalent information will be considered in lieu of standard form specified; submit draft to Architect for approval.
- C. Forms filled out by hand will not be accepted.
- D. Submit Schedule of Values in duplicate within 15 days after date established in Notice to Proceed.

**1.04 APPLICATIONS FOR PROGRESS PAYMENTS**

- A. Payment Period: Submit at intervals stipulated in the Agreement.
- B. Use Form AIA G702 and Form AIA G703, edition stipulated in the Agreement.
- C. Electronic media printout including equivalent information will be considered in lieu of standard form specified; submit sample to Architect for approval.
- D. Forms filled out by hand will not be accepted.
- E. For each item, provide a column for listing each of the following:
  - 1. Item Number.
  - 2. Description of work.
  - 3. Scheduled Values.
  - 4. Previous Applications.
  - 5. Work in Place and Stored Materials under this Application.
  - 6. Authorized Change Orders.
  - 7. Total Completed and Stored to Date of Application.
  - 8. Balance to Finish.
  - 9. Retainage.
- F. Execute certification by signature of authorized officer.
- G. Use data from approved Schedule of Values. Provide dollar value in each column for each line item for portion of work performed and for stored products.
- H. List each authorized Change Order as a separate line item, listing Change Order number and dollar amount as for an original item of work.
- I. Submit one electronic and three hard-copies of each Application for Payment.
- J. When Architect requires substantiating information, submit data justifying dollar amounts in question. Provide one copy of data with cover letter for each copy of submittal. Show application number and date, and line item by number and description.

**1.05 MODIFICATION PROCEDURES**

- A. For minor changes not involving an adjustment to the Contract Sum or Contract Time, Architect will issue instructions directly to Contractor.
- B. For other required changes, Architect will issue a document signed by Owner instructing Contractor to proceed with the change, for subsequent inclusion in a Change Order.

1. The document will describe the required changes and will designate method of determining any change in Contract Sum or Contract Time.
  2. Promptly execute the change.
- C. For changes for which advance pricing is desired, Architect will issue a document that includes a detailed description of a proposed change with supplementary or revised drawings and specifications, a change in Contract Time for executing the change with a stipulation of any overtime work required and the period of time during which the requested price will be considered valid. Contractor shall prepare and submit a fixed price quotation within 7 days.
- D. Contractor may propose a change by submitting a request for change to Architect, describing the proposed change and its full effect on the work, with a statement describing the reason for the change, and the effect on the Contract Sum and Contract Time with full documentation. Document any requested substitutions in accordance with Section 01 6000.
- E. Computation of Change in Contract Amount: As specified in the Agreement and Conditions of the Contract.
1. For change requested by Architect for work falling under a fixed price contract, the amount will be based on Contractor's price quotation.
  2. For change requested by Contractor, the amount will be based on the Contractor's request for a Change Order as approved by Architect.
- F. Substantiation of Costs: Provide full information required for evaluation.
1. On request, provide the following data:
    - a. Quantities of products, labor, and equipment.
    - b. Taxes, insurance, and bonds.
    - c. Overhead and profit.
    - d. Justification for any change in Contract Time.
    - e. Credit for deletions from Contract, similarly documented.
  2. Support each claim for additional costs with additional information:
    - a. Origin and date of claim.
    - b. Dates and times work was performed, and by whom.
    - c. Time records and wage rates paid.
    - d. Invoices and receipts for products, equipment, and subcontracts, similarly documented.
  3. For Time and Material work, submit itemized account and supporting data after completion of change, within time limits indicated in the Conditions of the Contract.
- G. Execution of Change Orders: Architect will issue Change Orders for signatures of parties as provided in the Conditions of the Contract.
- H. After execution of Change Order, promptly revise Schedule of Values and Application for Payment forms to record each authorized Change Order as a separate line item and adjust the Contract Sum.
- I. Promptly revise progress schedules to reflect any change in Contract Time, revise sub-schedules to adjust times for other items of work affected by the change, and resubmit.
- J. Promptly enter changes in Project Record Documents.

#### **1.06 APPLICATION FOR FINAL PAYMENT**

- A. Prepare Application for Final Payment as specified for progress payments, identifying total adjusted Contract Sum, previous payments, and sum remaining due.
- B. Application for Final Payment will not be considered until the following have been accomplished:
  1. All closeout procedures specified in Section 01 7000.

**END OF SECTION 01 2000**

**SECTION 01 2100  
ALLOWANCES**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Cash allowances.
- B. Payment and modification procedures relating to allowances.

**1.02 RELATED REQUIREMENTS**

- A. Section 01 2000 - Price and Payment Procedures: Additional payment and modification procedures.

**1.03 CASH ALLOWANCES**

- A. Costs Included in Cash Allowances: Cost of product to Contractor or subcontractor, less applicable trade discounts.
- B. Architect Responsibilities:
  - 1. Consult with Contractor for consideration and selection of products, suppliers, and installers.
  - 2. Select products in consultation with Owner and transmit decision to Contractor.
  - 3. Prepare Change Order.
- C. Contractor Responsibilities:
  - 1. Assist Architect in selection of products, suppliers, and installers.
  - 2. Obtain proposals from suppliers and installers and offer recommendations.
  - 3. On notification of which products have been selected, execute purchase agreement with designated supplier and installer.
  - 4. Arrange for and process shop drawings, product data, and samples. Arrange for delivery.
  - 5. Promptly inspect products upon delivery for completeness, damage, and defects. Submit claims for transportation damage.

**1.04 ALLOWANCES SCHEDULE**

- A. Section 08 7100 - Door Hardware: Include the stipulated sum of \$1000 for purchase, delivery, and installation of Door hardware not specified in other sections and locking hardware for millwork.

**PART 2 PRODUCTS - NOT USED**

**PART 3 EXECUTION - NOT USED**

**END OF SECTION 01 2100**



**SECTION 01 2500**  
**SUBSTITUTION PROCEDURES**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Procedural requirements for proposed substitutions.

**1.02 RELATED REQUIREMENTS**

- A. Section 00 4325 - Substitution Request Form - During Procurement: Required form for substitution requests made prior to award of contract (During procurement).
- B. Section 00 6325 - Substitution Request Form - During Construction: Required form for substitution requests made after award of contract (During construction).
- C. Section 01 2100 - Allowances, for cash allowances affecting this section.
- D. Section 01 6000 - Product Requirements: Fundamental product requirements, product options, delivery, storage, and handling.

**1.03 DEFINITIONS**

- A. Substitutions: See General Conditions for definition.

**1.04 REFERENCE STANDARDS**

- A. CSI/CSC Form 1.5C - Substitution Request (During the Bidding/Negotiating Stage); Current Edition.
- B. CSI/CSC Form 13.1A - Substitution Request (After the Bidding/Negotiating Phase); Current Edition.

**PART 2 PRODUCTS - NOT USED**

**PART 3 EXECUTION**

**3.01 GENERAL REQUIREMENTS**

- A. A Substitution Request for products, assemblies, materials, and equipment constitutes a representation that the submitter:
  - 1. Has investigated proposed product and determined that it meets or exceeds the quality level of the specified product, equipment, assembly, or system.
  - 2. Agrees to provide the same warranty for the substitution as for the specified product.
  - 3. Agrees to provide same or equivalent maintenance service and source of replacement parts, as applicable.
  - 4. Agrees to coordinate installation and make changes to other work that may be required for the work to be complete, with no additional cost to Owner.
  - 5. Waives claims for additional costs or time extension that may subsequently become apparent.
- B. Document each request with complete data substantiating compliance of proposed substitution with Contract Documents. Burden of proof is on proposer.
  - 1. Note explicitly any non-compliant characteristics.
- C. Content: Include information necessary for tracking the status of each Substitution Request, and information necessary to provide an actionable response.
  - 1. Forms indicated in the Project Manual are adequate for this purpose, and must be used.
- D. Limit each request to a single proposed substitution item.
  - 1. Submit an electronic document, combining the request form with supporting data into single document.

**3.02 SUBSTITUTION PROCEDURES DURING PROCUREMENT**

- A. Instructions to Bidders specifies time restrictions for submitting requests for substitutions during the bidding period, and the documents required.

- B. Submittal Form (before award of contract):
  - 1. Submit substitution requests by completing CSI/CSC Form 1.5C - Substitution Request (During the Bidding/Negotiating Stage). See this form for additional information and instructions. Use only this form; other forms of submission are unacceptable.

### **3.03 SUBSTITUTION PROCEDURES DURING CONSTRUCTION**

- A. Submittal Form (after award of contract):
  - 1. Submit substitution requests by completing CSI/CSC Form 13.1A - Substitution Request. See this form for additional information and instructions. Use only this form; other forms of submission are unacceptable.
- B. Architect will consider requests for substitutions only within 15 days after date established in Notice to Proceed.
- C. Submit request for Substitution for Cause within 14 days of discovery of need for substitution, but not later than 14 days prior to time required for review and approval by Architect, in order to stay on approved project schedule.
- D. Submit request for Substitution for Convenience immediately upon discovery of its potential advantage to the project, but not later than 14 days prior to time required for review and approval by Architect, in order to stay on approved project schedule.
  - 1. In addition to meeting general documentation requirements, document how the requested substitution benefits the Owner through cost savings, time savings, greater energy conservation, or in other specific ways.
  - 2. Document means of coordinating of substitution item with other portions of the work, including work by affected subcontractors.
  - 3. Bear the costs engendered by proposed substitution of:
    - a. Owner's compensation to the Architect for any required redesign, time spent processing and evaluating the request.
    - b. Other unanticipated project considerations.
- E. Substitutions will not be considered under one or more of the following circumstances:
  - 1. When they are indicated or implied on shop drawing or product data submittals, without having received prior approval.
  - 2. Without a separate written request.
  - 3. When acceptance will require revisions to the Contract Documents.

### **3.04 RESOLUTION**

- A. Architect may request additional information and documentation prior to rendering a decision. Provide this data in an expeditious manner.
- B. Architect will notify Contractor in writing of decision to accept or reject request.
  - 1. Architect's decision following review of proposed substitution will be noted on the submitted form.

### **3.05 ACCEPTANCE**

### **3.06 CLOSEOUT ACTIVITIES**

- A. See Section 01 7800 - Closeout Submittals, for closeout submittals.

**END OF SECTION 01 2500**



**SECTION 01 3000**  
**ADMINISTRATIVE REQUIREMENTS**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. General administrative requirements.
- B. Preconstruction meeting.
- C. Progress meetings.
- D. Construction progress schedule.
- E. Submittals for review, information, and project closeout.
- F. Number of copies of submittals.
- G. Requests for Interpretation (RFI) procedures.
- H. Submittal procedures.

**1.02 RELATED REQUIREMENTS**

- A. Section 00 7200 - General Conditions: Dates for applications for payment.
- B. Section 01 6000 - Product Requirements: General product requirements.
- C. Section 01 7000 - Execution and Closeout Requirements: Additional coordination requirements.
- D. Section 01 7800 - Closeout Submittals: Project record documents; operation and maintenance data; warranties and bonds.

**1.03 GENERAL ADMINISTRATIVE REQUIREMENTS**

- A. Comply with requirements of Section 01 7000 - Execution and Closeout Requirements for coordination of execution of administrative tasks with timing of construction activities.
- B. Make the following types of submittals to Architect:
  - 1. Requests for Interpretation (RFI).
  - 2. Requests for substitution.
  - 3. Shop drawings, product data, and samples.
  - 4. Test and inspection reports.
  - 5. Design data.
  - 6. Manufacturer's instructions and field reports.
  - 7. Applications for payment and change order requests.
  - 8. Progress schedules.
  - 9. Coordination drawings.
  - 10. Correction Punch List and Final Correction Punch List for Substantial Completion.
  - 11. Closeout submittals.

**PART 2 PRODUCTS - NOT USED**

**PART 3 EXECUTION**

**3.01 PRECONSTRUCTION MEETING**

- A. Schedule meeting after Notice of Award.
- B. Attendance Required:
  - 1. Owner.
  - 2. Architect.
  - 3. Contractor.
- C. Agenda:
  - 1. Execution of Owner-Contractor Agreement.
  - 2. Submission of executed bonds and insurance certificates.
  - 3. Distribution of Contract Documents.

4. Submission of list of subcontractors, list of products, schedule of values, and progress schedule.
  5. Designation of personnel representing the parties to Contract, Owner and Architect.
  6. Procedures and processing of field decisions, submittals, substitutions, applications for payments, proposal request, Change Orders, and Contract closeout procedures.
  7. Scheduling.
- D. Record minutes and distribute copies within two days after meeting to participants, with two copies to Architect, Owner, participants, and those affected by decisions made.

### **3.02 PROGRESS MEETINGS**

- A. Schedule and administer meetings throughout progress of the work at maximum bi-monthly intervals.
- B. Attendance Required:
1. Contractor.
  2. Owner.
  3. Architect.
  4. Contractor's superintendent.
  5. Major subcontractors.
- C. Agenda:
1. Review minutes of previous meetings.
  2. Review of work progress.
  3. Field observations, problems, and decisions.
  4. Identification of problems that impede, or will impede, planned progress.
  5. Review of submittals schedule and status of submittals.
  6. Maintenance of progress schedule.
  7. Corrective measures to regain projected schedules.
  8. Planned progress during succeeding work period.
  9. Maintenance of quality and work standards.
  10. Effect of proposed changes on progress schedule and coordination.
  11. Other business relating to work.
- D. Record minutes and distribute copies within two days after meeting to participants, with two copies to Architect, Owner, participants, and those affected by decisions made.

### **3.03 CONSTRUCTION PROGRESS SCHEDULE**

- A. If preliminary schedule requires revision after review, submit revised schedule within 10 days.
- B. Within 20 days after review of preliminary schedule, submit draft of proposed complete schedule for review.
1. Include written certification that major contractors have reviewed and accepted proposed schedule.
- C. Within 10 days after joint review, submit complete schedule.
- D. Submit updated schedule with each Application for Payment.

### **3.04 REQUESTS FOR INFORMATION (RFI)**

- A. Definition: A request seeking one of the following:
1. An interpretation, amplification, or clarification of some requirement of Contract Documents arising from inability to determine from them the exact material, process, or system to be installed; or when the elements of construction are required to occupy the same space (interference); or when an item of work is described differently at more than one place in the Contract Documents.
  2. A resolution to an issue which has arisen due to field conditions and affects design intent.
- B. Whenever possible, request clarifications at the next appropriate project progress meeting, with response entered into meeting minutes, rendering unnecessary the issuance of a formal RFI.

- C. Preparation: Prepare an RFI immediately upon discovery of a need for interpretation of the Contract Documents. Failure to submit a RFI in a timely manner is not a legitimate cause for claiming additional costs or delays in execution of the work.
  - 1. Prepare a separate RFI for each specific item.
    - a. Do not forward requests which solely require internal coordination between subcontractors.
  - 2. Prepare in a format and with content acceptable to Owner.
  - 3. Combine RFI and its attachments into a single electronic file. PDF format is preferred.
- D. Reason for the RFI: Prior to initiation of an RFI, carefully study all Contract Documents to confirm that information sufficient for their interpretation is definitely not included.
  - 1. Unacceptable Uses for RFIs: Do not use RFIs to request the following:
    - a. Approval of submittals (use procedures specified elsewhere in this section).
    - b. Approval of substitutions (see Section - 01 6000 - Product Requirements)
    - c. Changes that entail change in Contract Time and Contract Sum (comply with provisions of the Conditions of the Contract).
  - 2. Improper RFIs: Requests not prepared in compliance with requirements of this section, and/or missing key information required to render an actionable response. They will be returned without a response, with an explanatory notation.
  - 3. Frivolous RFIs: Requests regarding information that is clearly indicated on, or reasonably inferable from, the Contract Documents, with no additional input required to clarify the question. They will be returned without a response, with an explanatory notation.
- E. Content: Include identifiers necessary for tracking the status of each RFI, and information necessary to provide an actionable response.
  - 1. Official Project name and number, and any additional required identifiers established in Contract Documents.
  - 2. Owner's, Architect's, and Contractor's names.
  - 3. Discrete and consecutive RFI number, and descriptive subject/title.
  - 4. Issue date, and requested reply date.
  - 5. Reference to particular Contract Document(s) requiring additional information/interpretation. Identify pertinent drawing and detail number and/or specification section number, title, and paragraph(s).
  - 6. Annotations: Field dimensions and/or description of conditions which have engendered the request.
  - 7. Contractor's suggested resolution: A written and/or a graphic solution, to scale, is required in cases where clarification of coordination issues is involved, for example; routing, clearances, and/or specific locations of work shown diagrammatically in Contract Documents. If applicable, state the likely impact of the suggested resolution on Contract Time or the Contract Sum.
- F. Attachments: Include sketches, coordination drawings, descriptions, photos, submittals, and other information necessary to substantiate the reason for the request.
- G. RFI Log: Prepare and maintain a tabular log of RFIs for the duration of the project.
  - 1. Indicate current status of every RFI. Update log promptly and on a regular basis.
  - 2. Note dates of when each request is made, and when a response is received.
- H. Review Time: Architect will respond and return RFIs to Contractor within seven calendar days of receipt. For the purpose of establishing the start of the mandated response period, RFIs received after 12:00 noon will be considered as having been received on the following regular working day.
  - 1. Response period may be shortened or lengthened for specific items, subject to mutual agreement, and recorded in a timely manner in progress meeting minutes.
- I. Responses: Content of answered RFIs will not constitute in any manner a directive or authorization to perform extra work or delay the project. If in Contractor's belief it is likely to lead

to a change to Contract Sum or Contract Time, promptly issue a notice to this effect, and follow up with an appropriate Change Order request to Owner.

1. Response may include a request for additional information, in which case the original RFI will be deemed as having been answered, and an amended one is to be issued forthwith. Identify the amended RFI with an R suffix to the original number.
2. Do not extend applicability of a response to specific item to encompass other similar conditions, unless specifically so noted in the response.
3. Upon receipt of a response, promptly review and distribute it to all affected parties, and update the RFI Log.
4. Notify Architect within seven calendar days if an additional or corrected response is required by submitting an amended version of the original RFI, identified as specified above.

### **3.05 SUBMITTAL SCHEDULE**

- A. Submit to Architect for review a schedule for submittals in tabular format.
  1. Coordinate with Contractor's construction schedule and schedule of values.
  2. Account for time required for preparation, review, manufacturing, fabrication and delivery when establishing submittal delivery and review deadline dates.

### **3.06 SUBMITTALS FOR REVIEW**

- A. When the following are specified in individual sections, submit them for review:
  1. Product data.
  2. Shop drawings.
  3. Samples for selection.
  4. Samples for verification.
- B. Submit to Architect for review for the limited purpose of checking for compliance with information given and the design concept expressed in the contract documents.
- C. Samples will be reviewed for aesthetic, color, or finish selection.
- D. After review, provide copies and distribute in accordance with SUBMITTAL PROCEDURES article below and for record documents purposes described in Section 01 7800 - Closeout Submittals.

### **3.07 SUBMITTALS FOR INFORMATION**

- A. When the following are specified in individual sections, submit them for information:
  1. Design data.
  2. Certificates.
  3. Test reports.
  4. Inspection reports.
  5. Manufacturer's instructions.
  6. Manufacturer's field reports.
  7. Other types indicated.
- B. Submit for Architect's knowledge as contract administrator or for Owner.

### **3.08 SUBMITTALS FOR PROJECT CLOSEOUT**

- A. Submit Correction Punch List for Substantial Completion.
- B. Submit Final Correction Punch List for Substantial Completion.
- C. When the following are specified in individual sections, submit them at project closeout in compliance with requirements of Section 01 7800 - Closeout Submittals:
  1. Project record documents.
  2. Operation and maintenance data.
  3. Warranties.
  4. Bonds.
  5. Other types as indicated.

- D. Submit for Owner's benefit during and after project completion.

### **3.09 NUMBER OF COPIES OF SUBMITTALS**

- A. Electronic Documents: Submit one electronic copy in PDF format; an electronically-marked up file will be returned. Create PDFs at native size and right-side up; illegible files will be rejected.
- B. Samples: Submit the number specified in individual specification sections; one of which will be retained by Architect.
1. After review, produce duplicates.
  2. Retained samples will not be returned to Contractor unless specifically so stated.

### **3.10 SUBMITTAL PROCEDURES**

- A. General Requirements:
1. Use a single transmittal for related items.
  2. Submit separate packages of submittals for review and submittals for information, when included in the same specification section.
  3. Transmit using approved form.
    - a. Use Contractor's form, subject to prior approval by Architect.
  4. Sequentially identify each item. For revised submittals use original number and a sequential numerical suffix.
  5. Identify: Project; Contractor; subcontractor or supplier; pertinent drawing and detail number; and specification section number and article/paragraph, as appropriate on each copy.
  6. Apply Contractor's stamp, signed or initialed certifying that review, approval, verification of products required, field dimensions, adjacent construction work, and coordination of information is in accordance with the requirements of the work and Contract Documents.
    - a. Submittals from sources other than the Contractor, or without Contractor's stamp will not be acknowledged, reviewed, or returned.
  7. Deliver each submittal on date noted in submittal schedule, unless an earlier date has been agreed to by all affected parties, and is of the benefit to the project.
    - a. Send submittals in electronic format via email to Architect.
  8. Schedule submittals to expedite the Project, and coordinate submission of related items.
    - a. For each submittal for review, allow 15 days excluding delivery time to and from the Contractor.
    - b. For sequential reviews involving Architect's consultants, Owner, or another affected party, allow an additional 7 days.
    - c. For sequential reviews involving approval from authorities having jurisdiction (AHJ), in addition to Architect's approval, allow an additional 30 days.
  9. Identify variations from Contract Documents and product or system limitations that may be detrimental to successful performance of the completed work.
  10. When revised for resubmission, identify all changes made since previous submission.
  11. Distribute reviewed submittals. Instruct parties to promptly report inability to comply with requirements.
  12. Incomplete submittals will not be reviewed, unless they are partial submittals for distinct portion(s) of the work, and have received prior approval for their use.
  13. Submittals not requested will be recognized, and will be returned "Not Reviewed",
- B. Product Data Procedures:
1. Submit only information required by individual specification sections.
  2. Collect required information into a single submittal.
  3. Do not submit (Material) Safety Data Sheets for materials or products.
- C. Shop Drawing Procedures:
1. Prepare accurate, drawn-to-scale, original shop drawing documentation by interpreting the Contract Documents and coordinating related work.
  2. Do not reproduce the Contract Documents to create shop drawings.

3. Generic, non-project-specific information submitted as shop drawings do not meet the requirements for shop drawings.
- D. Samples Procedures:
  1. Transmit related items together as single package.
  2. Identify each item to allow review for applicability in relation to shop drawings showing installation locations.

### **3.11 SUBMITTAL REVIEW**

- A. Submittals for Review: Architect will review each submittal, and approve, or take other appropriate action.
- B. Submittals for Information: Architect will acknowledge receipt and review. See below for actions to be taken.
- C. Architect's actions will be reflected by marking each returned submittal using virtual stamp on electronic submittals.
  1. Notations may be made directly on submitted items and/or listed on appended Submittal Review cover sheet.
- D. Architect's and consultants' actions on items submitted for review:
  1. Authorizing purchasing, fabrication, delivery, and installation:
    - a. "No Exceptions Taken", or language with same legal meaning.
    - b. "Exceptions Taken as Noted, Provide Revised Submittal for Project Records", or language with same legal meaning.
      - 1) At Contractor's option, submit corrected item, with review notations acknowledged and incorporated.
  2. Not Authorizing fabrication, delivery, and installation:
    - a. "Exceptions Taken as Noted, Revise and Resubmit as Noted for Review".
      - 1) Resubmit revised item, with review notations acknowledged and incorporated.
    - b. "Rejected".
      - 1) Submit item complying with requirements of Contract Documents.
- E. Architect's and consultants' actions on items submitted for information:
  1. Items for which no action was taken:
    - a. "Received" - to notify the Contractor that the submittal has been received for record only.
  2. Items for which action was taken:
    - a. "Reviewed" - no further action is required from Contractor.

**END OF SECTION 01 3000**

**SECTION 01 6000**  
**PRODUCT REQUIREMENTS**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Transportation, handling, storage and protection.
- B. Product option requirements.
- C. Substitution limitations.

**1.02 SUBMITTALS**

- A. Product Data Submittals: Submit manufacturer's standard published data. Mark each copy to identify applicable products, models, options, and other data. Supplement manufacturers' standard data to provide information specific to this Project.
- B. Shop Drawing Submittals: Prepared specifically for this Project; indicate utility and electrical characteristics, utility connection requirements, and location of utility outlets for service for functional equipment and appliances.
- C. Sample Submittals: Illustrate functional and aesthetic characteristics of the product, with integral parts and attachment devices. Coordinate sample submittals for interfacing work.
  - 1. For selection from standard finishes, submit samples of the full range of the manufacturer's standard colors, textures, and patterns.

**PART 2 PRODUCTS**

**2.01 NEW PRODUCTS**

- A. Provide new products unless specifically required or permitted by the Contract Documents.
- B. Use of products having any of the following characteristics is not permitted:
- C. Where other criteria are met, Contractor shall give preference to products that:
  - 1. If used on interior, have lower emissions, as defined in Section 01 6116.
  - 2. If wet-applied, have lower VOC content, as defined in Section 01 6116.

**2.02 PRODUCT OPTIONS**

- A. Products Specified by Reference Standards or by Description Only: Use any product meeting those standards or description.
- B. Products Specified by Naming One or More Manufacturers: Use a product of one of the manufacturers named and meeting specifications, no options or substitutions allowed.
- C. Products Specified by Naming One or More Manufacturers with a Provision for Substitutions: Submit a request for substitution for any manufacturer not named.

**PART 3 EXECUTION**

**3.01 SUBSTITUTION LIMITATIONS**

- A. See Section 01 2500 - Substitution Procedures.

**3.02 TRANSPORTATION AND HANDLING**

- A. Package products for shipment in manner to prevent damage; for equipment, package to avoid loss of factory calibration.
- B. If special precautions are required, attach instructions prominently and legibly on outside of packaging.
- C. Coordinate schedule of product delivery to designated prepared areas in order to minimize site storage time and potential damage to stored materials.
- D. Transport and handle products in accordance with manufacturer's instructions.
- E. Transport materials in covered trucks to prevent contamination of product and littering of surrounding areas.

- F. Promptly inspect shipments to ensure that products comply with requirements, quantities are correct, and products are undamaged.
- G. Provide equipment and personnel to handle products by methods to prevent soiling, disfigurement, or damage, and to minimize handling.
- H. Arrange for the return of packing materials, such as wood pallets, where economically feasible.

**3.03 STORAGE AND PROTECTION**

- A. Designate receiving/storage areas for incoming products so that they are delivered according to installation schedule and placed convenient to work area in order to minimize waste due to excessive materials handling and misapplication. See Section 01 7419.
- B. Store and protect products in accordance with manufacturers' instructions.
- C. Store with seals and labels intact and legible.
- D. Store sensitive products in weathertight, climate-controlled enclosures in an environment favorable to product.
- E. For exterior storage of fabricated products, place on sloped supports above ground.
- F. Protect products from damage or deterioration due to construction operations, weather, precipitation, humidity, temperature, sunlight and ultraviolet light, dirt, dust, and other contaminants.
- G. Comply with manufacturer's warranty conditions, if any.
- H. Cover products subject to deterioration with impervious sheet covering. Provide ventilation to prevent condensation and degradation of products.
- I. Prevent contact with material that may cause corrosion, discoloration, or staining.
- J. Provide equipment and personnel to store products by methods to prevent soiling, disfigurement, or damage.
- K. Arrange storage of products to permit access for inspection. Periodically inspect to verify products are undamaged and are maintained in acceptable condition.

**END OF SECTION 01 6000**



## SECTION 01 6116

### VOLATILE ORGANIC COMPOUND (VOC) CONTENT RESTRICTIONS

#### PART 1 GENERAL

##### 1.01 SECTION INCLUDES

- A. Requirements for Indoor-Emissions-Restricted products.
- B. Requirements for VOC-Content-Restricted products.

##### 1.02 DEFINITIONS

- A. Indoor-Emissions-Restricted Products: All products in the following product categories, whether specified or not:
  - 1. Interior paints and coatings applied on site.
  - 2. Interior adhesives and sealants applied on site, including flooring adhesives.
  - 3. Flooring.
  - 4. Composite wood.
  - 5. Products making up wall and ceiling assemblies.
  - 6. Thermal and acoustical insulation.
- B. VOC-Content-Restricted Products: All products in the following product categories, whether specified or not:
  - 1. Interior paints and coatings applied on site.
  - 2. Interior adhesives and sealants applied on site, including flooring adhesives.
- C. Interior of Building: Anywhere inside the exterior weather barrier.
- D. Adhesives: All gunnable, trowelable, liquid-applied, and aerosol adhesives, whether specified or not; including flooring adhesives, resilient base adhesives, and pipe jointing adhesives.
- E. Sealants: All gunnable, trowelable, and liquid-applied joint sealants and sealant primers, whether specified or not; including firestopping sealants and duct joint sealers.
- F. Inherently Non-Emitting Materials: Products composed wholly of minerals or metals, unless they include organic-based surface coatings, binders, or sealants; and specifically the following:
  - 1. Concrete.
  - 2. Clay brick.
  - 3. Metals that are plated, anodized, or powder-coated.
  - 4. Glass.
  - 5. Ceramics.
  - 6. Solid wood flooring that is unfinished and untreated.

##### 1.03 REFERENCE STANDARDS

- A. 40 CFR 59, Subpart D - National Volatile Organic Compound Emission Standards for Architectural Coatings; U.S. Environmental Protection Agency; current edition.
- B. ASTM D3960 - Standard Practice for Determining Volatile Organic Compound (VOC) Content of Paints and Related Coatings; 2005 (Reapproved 2013).
- C. CARB (SCM) - Suggested Control Measure for Architectural Coatings; California Air Resources Board; 2007.
- D. SCAQMD 1113 - Architectural Coatings; 1977 (Amended 2016).
- E. SCAQMD 1168 - Adhesive and Sealant Applications; 1989 (Amended 2017).

##### 1.04 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Product Data: For each VOC-restricted product used in the project, submit evidence of compliance.

### **1.05 QUALITY ASSURANCE**

- A. VOC Content Test Method: 40 CFR 59, Subpart D (EPA Method 24), or ASTM D3960, unless otherwise indicated.
  - 1. Evidence of Compliance: Acceptable types of evidence are:
    - a. Report of laboratory testing performed in accordance with requirements.
- B. Testing Agency Qualifications: Independent firm specializing in performing testing and inspections of the type specified in this section.

### **PART 2 PRODUCTS**

#### **2.01 MATERIALS**

- A. All Products: Comply with the most stringent of federal, State, and local requirements, or these specifications.
- B. VOC-Content-Restricted Products: VOC content not greater than required by the following:
  - 1. Adhesives, Including Flooring Adhesives: SCAQMD 1168 Rule.
  - 2. Joint Sealants: SCAQMD 1168 Rule.
  - 3. Paints and Coatings: Each color; most stringent of the following:
    - a. 40 CFR 59, Subpart D.
    - b. SCAQMD 1113 Rule.
    - c. CARB (SCM).

### **PART 3 EXECUTION**

#### **3.01 FIELD QUALITY CONTROL**

- A. Owner reserves the right to reject non-compliant products, whether installed or not, and require their removal and replacement with compliant products at no extra cost to Owner.
- B. Additional costs to restore indoor air quality due to installation of non-compliant products will be borne by Contractor.

**END OF SECTION 01 6116**

**SECTION 01 7000**  
**EXECUTION AND CLOSEOUT REQUIREMENTS**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Examination, preparation, and general installation procedures.
- B. Requirements for alterations work, including selective demolition, \_\_\_\_\_.
- C. Cutting and patching.
- D. Surveying for laying out the work.
- E. Cleaning and protection.
- F. Closeout procedures, including Contractor's Correction Punch List, except payment procedures.
- G. General requirements for maintenance service.

**1.02 RELATED REQUIREMENTS**

- A. Section 01 5000 - Temporary Facilities and Controls: Temporary exterior enclosures.
- B. Section 01 5000 - Temporary Facilities and Controls: Temporary interior partitions.
- C. Section 07 8400 - Firestopping.

**1.03 QUALIFICATIONS**

- A. For surveying work, employ a land surveyor registered in Arkansas and acceptable to Architect. Submit evidence of surveyor's Errors and Omissions insurance coverage in the form of an Insurance Certificate. Employ only individual(s) trained and experienced in collecting and recording accurate data relevant to ongoing construction activities,

**1.04 PROJECT CONDITIONS**

- A. Ventilate enclosed areas to assist cure of materials, to dissipate humidity, and to prevent accumulation of dust, fumes, vapors, or gases.
- B. Dust Control: Execute work by methods to minimize raising dust from construction operations. Provide positive means to prevent air-borne dust from dispersing into atmosphere and over adjacent property.
  - 1. Provide dust-proof barriers between construction areas and areas continuing to be occupied by Owner.

**1.05 COORDINATION**

- A. Coordinate scheduling, submittals, and work of the various sections of the Project Manual to ensure efficient and orderly sequence of installation of interdependent construction elements, with provisions for accommodating items installed later.
- B. Notify affected utility companies and comply with their requirements.
- C. Verify that utility requirements and characteristics of new operating equipment are compatible with building utilities. Coordinate work of various sections having interdependent responsibilities for installing, connecting to, and placing in service, such equipment.
- D. Coordinate space requirements, supports, and installation of mechanical and electrical work that are indicated diagrammatically on drawings. Follow routing indicated for pipes, ducts, and conduit, as closely as practicable; place runs parallel with lines of building. Utilize spaces efficiently to maximize accessibility for other installations, for maintenance, and for repairs.
- E. In finished areas except as otherwise indicated, conceal pipes, ducts, and wiring within the construction. Coordinate locations of fixtures and outlets with finish elements.
- F. Coordinate completion and clean-up of work of separate sections.
- G. After Owner occupancy of premises, coordinate access to site for correction of defective work and work not in accordance with Contract Documents, to minimize disruption of Owner's activities.

## **PART 2 PRODUCTS**

### **2.01 PATCHING MATERIALS**

- A. New Materials: As specified in product sections; match existing products and work for patching and extending work.
- B. Type and Quality of Existing Products: Determine by inspecting and testing products where necessary, referring to existing work as a standard.
- C. Product Substitution: For any proposed change in materials, submit request for substitution described in Section 01 6000 - Product Requirements.

## **PART 3 EXECUTION**

### **3.01 EXAMINATION**

- A. Verify that existing site conditions and substrate surfaces are acceptable for subsequent work. Start of work means acceptance of existing conditions.
- B. Verify that existing substrate is capable of structural support or attachment of new work being applied or attached.
- C. Examine and verify specific conditions described in individual specification sections.
- D. Take field measurements before confirming product orders or beginning fabrication, to minimize waste due to over-ordering or misfabrication.
- E. Verify that utility services are available, of the correct characteristics, and in the correct locations.
- F. Prior to Cutting: Examine existing conditions prior to commencing work, including elements subject to damage or movement during cutting and patching. After uncovering existing work, assess conditions affecting performance of work. Beginning of cutting or patching means acceptance of existing conditions.

### **3.02 PREPARATION**

- A. Clean substrate surfaces prior to applying next material or substance.
- B. Seal cracks or openings of substrate prior to applying next material or substance.
- C. Apply manufacturer required or recommended substrate primer, sealer, or conditioner prior to applying any new material or substance in contact or bond.

### **3.03 LAYING OUT THE WORK**

- A. Verify locations of survey control points prior to starting work.
- B. Promptly notify Architect of any discrepancies discovered.
- C. Protect survey control points prior to starting site work; preserve permanent reference points during construction.
- D. Promptly report to Architect the loss or destruction of any reference point or relocation required because of changes in grades or other reasons.
- E. Replace dislocated survey control points based on original survey control. Make no changes without prior written notice to Architect.
- F. Utilize recognized engineering survey practices.
- G. Establish elevations, lines and levels. Locate and lay out by instrumentation and similar appropriate means:
  - 1. Site improvements including pavements; stakes for grading, fill and topsoil placement; utility locations, slopes, and invert elevations; and \_\_\_\_\_.
  - 2. Grid or axis for structures.
  - 3. Building foundation, column locations, ground floor elevations, and \_\_\_\_\_.
- H. Periodically verify layouts by same means.
- I. Maintain a complete and accurate log of control and survey work as it progresses.

### 3.04 GENERAL INSTALLATION REQUIREMENTS

- A. Install products as specified in individual sections, in accordance with manufacturer's instructions and recommendations, and so as to avoid waste due to necessity for replacement.
- B. Make vertical elements plumb and horizontal elements level, unless otherwise indicated.
- C. Install equipment and fittings plumb and level, neatly aligned with adjacent vertical and horizontal lines, unless otherwise indicated.
- D. Make consistent texture on surfaces, with seamless transitions, unless otherwise indicated.
- E. Make neat transitions between different surfaces, maintaining texture and appearance.

### 3.05 ALTERATIONS

- A. Drawings showing existing construction and utilities are based on casual field observation and existing record documents only.
  - 1. Verify that construction and utility arrangements are as indicated.
  - 2. Report discrepancies to Architect before disturbing existing installation.
  - 3. Beginning of alterations work constitutes acceptance of existing conditions.
- B. Keep areas in which alterations are being conducted separated from other areas that are still occupied.
  - 1. Provide, erect, and maintain temporary dustproof partitions of construction specified in Section 01 5000 in locations indicated on drawings.
- C. Maintain weatherproof exterior building enclosure except for interruptions required for replacement or modifications; take care to prevent water and humidity damage.
  - 1. Where openings in exterior enclosure exist, provide construction to make exterior enclosure weatherproof.
  - 2. Insulate existing ducts or pipes that are exposed to outdoor ambient temperatures by alterations work.
- D. Remove existing work as indicated and as required to accomplish new work.
  - 1. Remove items indicated on drawings.
  - 2. Relocate items indicated on drawings.
  - 3. Where new surface finishes are to be applied to existing work, perform removals, patch, and prepare existing surfaces as required to receive new finish; remove existing finish if necessary for successful application of new finish.
  - 4. Where new surface finishes are not specified or indicated, patch holes and damaged surfaces to match adjacent finished surfaces as closely as possible.
- E. Services (Including but not limited to HVAC, Plumbing, Fire Protection, Electrical, and Telecommunications): Remove, relocate, and extend existing systems to accommodate new construction.
  - 1. Maintain existing active systems that are to remain in operation; maintain access to equipment and operational components; if necessary, modify installation to allow access or provide access panel.
  - 2. Where existing systems or equipment are not active and Contract Documents require reactivation, put back into operational condition; repair supply, distribution, and equipment as required.
  - 3. Where existing active systems serve occupied facilities but are to be replaced with new services, maintain existing systems in service until new systems are complete and ready for service.
    - a. Disable existing systems only to make switchovers and connections; minimize duration of outages.
    - b. Provide temporary connections as required to maintain existing systems in service.
  - 4. Verify that abandoned services serve only abandoned facilities.
  - 5. Remove abandoned pipe, ducts, conduits, and equipment, including those above accessible ceilings; remove back to source of supply where possible, otherwise cap stub

and tag with identification; patch holes left by removal using materials specified for new construction.

- F. Protect existing work to remain.
  - 1. Prevent movement of structure; provide shoring and bracing if necessary.
  - 2. Perform cutting to accomplish removals neatly and as specified for cutting new work.
  - 3. Repair adjacent construction and finishes damaged during removal work.
- G. Adapt existing work to fit new work: Make as neat and smooth transition as possible.
- H. Patching: Where the existing surface is not indicated to be refinished, patch to match the surface finish that existed prior to cutting. Where the surface is indicated to be refinished, patch so that the substrate is ready for the new finish.
- I. Refinish existing surfaces as indicated:
  - 1. Where rooms or spaces are indicated to be refinished, refinish all visible existing surfaces to remain to the specified condition for each material, with a neat transition to adjacent finishes.
  - 2. If mechanical or electrical work is exposed accidentally during the work, re-cover and refinish to match.
- J. Clean existing systems and equipment.
- K. Remove demolition debris and abandoned items from alterations areas and dispose of off-site; do not burn or bury.
- L. Do not begin new construction in alterations areas before demolition is complete.
- M. Comply with all other applicable requirements of this section.

### **3.06 CUTTING AND PATCHING**

- A. Whenever possible, execute the work by methods that avoid cutting or patching.
- B. See Alterations article above for additional requirements.
- C. Perform whatever cutting and patching is necessary to:
  - 1. Complete the work.
  - 2. Fit products together to integrate with other work.
  - 3. Provide openings for penetration of mechanical, electrical, and other services.
  - 4. Match work that has been cut to adjacent work.
  - 5. Repair areas adjacent to cuts to required condition.
  - 6. Repair new work damaged by subsequent work.
  - 7. Remove samples of installed work for testing when requested.
  - 8. Remove and replace defective and non-complying work.
- D. Execute work by methods that avoid damage to other work and that will provide appropriate surfaces to receive patching and finishing. In existing work, minimize damage and restore to original condition.
- E. Employ original installer to perform cutting for weather exposed and moisture resistant elements, and sight exposed surfaces.
- F. Cut rigid materials using masonry saw or core drill. Pneumatic tools not allowed without prior approval.
- G. Restore work with new products in accordance with requirements of Contract Documents.
- H. Fit work air tight to pipes, sleeves, ducts, conduit, and other penetrations through surfaces.
- I. At penetrations of fire rated walls, partitions, ceiling, or floor construction, completely seal voids with fire rated material in accordance with Section 07 8400, to full thickness of the penetrated element.
- J. Patching:

1. Finish patched surfaces to match finish that existed prior to patching. On continuous surfaces, refinish to nearest intersection or natural break. For an assembly, refinish entire unit.
2. Match color, texture, and appearance.
3. Repair patched surfaces that are damaged, lifted, discolored, or showing other imperfections due to patching work. If defects are due to condition of substrate, repair substrate prior to repairing finish.

### **3.07 PROGRESS CLEANING**

- A. Maintain areas free of waste materials, debris, and rubbish. Maintain site in a clean and orderly condition.
- B. Remove debris and rubbish from pipe chases, plenums, attics, crawl spaces, and other closed or remote spaces, prior to enclosing the space.
- C. Broom and vacuum clean interior areas prior to start of surface finishing, and continue cleaning to eliminate dust.
- D. Collect and remove waste materials, debris, and trash/rubbish from site periodically and dispose off-site; do not burn or bury.

### **3.08 PROTECTION OF INSTALLED WORK**

- A. Protect installed work from damage by construction operations.
- B. Provide special protection where specified in individual specification sections.
- C. Provide temporary and removable protection for installed products. Control activity in immediate work area to prevent damage.
- D. Provide protective coverings at walls, projections, jambs, sills, and soffits of openings.
- E. Protect finished floors, stairs, and other surfaces from traffic, dirt, wear, damage, or movement of heavy objects, by protecting with durable sheet materials.
- F. Prohibit traffic or storage upon waterproofed or roofed surfaces. If traffic or activity is necessary, obtain recommendations for protection from waterproofing or roofing material manufacturer.
- G. Remove protective coverings when no longer needed; reuse or recycle coverings if possible.

### **3.09 ADJUSTING**

- A. Adjust operating products and equipment to ensure smooth and unhindered operation.

### **3.10 FINAL CLEANING**

- A. Use cleaning materials that are nonhazardous.
- B. Clean interior and exterior glass, surfaces exposed to view; remove temporary labels, stains and foreign substances, polish transparent and glossy surfaces, vacuum carpeted and soft surfaces.
- C. Remove all labels that are not permanent. Do not paint or otherwise cover fire test labels or nameplates on mechanical and electrical equipment.
- D. Clean equipment and fixtures to a sanitary condition with cleaning materials appropriate to the surface and material being cleaned.
- E. Clean filters of operating equipment.
- F. Clean site; sweep paved areas, rake clean landscaped surfaces.
- G. Remove waste, surplus materials, trash/rubbish, and construction facilities from the site; dispose of in legal manner; do not burn or bury.

### **3.11 CLOSEOUT PROCEDURES**

- A. Make submittals that are required by governing or other authorities.
  1. Provide copies to Architect and Owner.

- B. Accompany Project Coordinator on preliminary inspection to determine items to be listed for completion or correction in the Contractor's Correction Punch List for Contractor's Notice of Substantial Completion.
- C. Notify Architect when work is considered ready for Architect's Substantial Completion inspection.
- D. Submit written certification containing Contractor's Correction Punch List, that Contract Documents have been reviewed, work has been inspected, and that work is complete in accordance with Contract Documents and ready for Architect's Substantial Completion inspection.
- E. Conduct Substantial Completion inspection and create Final Correction Punch List containing Architect's and Contractor's comprehensive list of items identified to be completed or corrected and submit to Architect.
- F. Correct items of work listed in Final Correction Punch List and comply with requirements for access to Owner-occupied areas.
- G. Notify Architect when work is considered finally complete and ready for Architect's Substantial Completion final inspection.
- H. Complete items of work determined by Architect listed in executed Certificate of Substantial Completion.

### **3.12 MAINTENANCE**

- A. Provide service and maintenance of components indicated in specification sections.
- B. Maintenance Period: As indicated in specification sections or, if not indicated, not less than one year from the Date of Substantial Completion or the length of the specified warranty, whichever is longer.
- C. Examine system components at a frequency consistent with reliable operation. Clean, adjust, and lubricate as required.
- D. Include systematic examination, adjustment, and lubrication of components. Repair or replace parts whenever required. Use parts produced by the manufacturer of the original component.
- E. Maintenance service shall not be assigned or transferred to any agent or subcontractor without prior written consent of the Owner.

**END OF SECTION 01 7000**



## SECTION 01 7419

### CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL

#### PART 1 GENERAL

##### 1.01 WASTE MANAGEMENT REQUIREMENTS

- A. Owner requires that this project generate the least amount of trash and waste possible.
- B. Employ processes that ensure the generation of as little waste as possible due to error, poor planning, breakage, mishandling, contamination, or other factors.
- C. Minimize trash/waste disposal in landfills; reuse, salvage, or recycle as much waste as economically feasible.
- D. Contractor shall submit periodic Waste Disposal Reports; all landfill disposal, incineration, recycling, salvage, and reuse must be reported regardless of to whom the cost or savings accrues; use the same units of measure on all reports.
- E. Methods of trash/waste disposal that are not acceptable are:
  - 1. Burning on the project site.
  - 2. Burying on the project site.
  - 3. Dumping or burying on other property, public or private.
  - 4. Other illegal dumping or burying.
- F. Regulatory Requirements: Contractor is responsible for knowing and complying with regulatory requirements, including but not limited to Federal, state and local requirements, pertaining to legal disposal of all construction and demolition waste materials.

##### 1.02 DEFINITIONS

- A. Clean: Untreated and unpainted; not contaminated with oils, solvents, caulk, or the like.
- B. Construction and Demolition Waste: Solid wastes typically including building materials, packaging, trash, debris, and rubble resulting from construction, remodeling, repair and demolition operations.
- C. Hazardous: Exhibiting the characteristics of hazardous substances, i.e., ignitibility, corrosivity, toxicity or reactivity.
- D. Nonhazardous: Exhibiting none of the characteristics of hazardous substances, i.e., ignitibility, corrosivity, toxicity, or reactivity.
- E. Nontoxic: Neither immediately poisonous to humans nor poisonous after a long period of exposure.
- F. Recyclable: The ability of a product or material to be recovered at the end of its life cycle and remanufactured into a new product for reuse by others.
- G. Recycle: To remove a waste material from the project site to another site for remanufacture into a new product for reuse by others.
- H. Recycling: The process of sorting, cleansing, treating and reconstituting solid waste and other discarded materials for the purpose of using the altered form. Recycling does not include burning, incinerating, or thermally destroying waste.
- I. Return: To give back reusable items or unused products to vendors for credit.
- J. Reuse: To reuse a construction waste material in some manner on the project site.
- K. Salvage: To remove a waste material from the project site to another site for resale or reuse by others.
- L. Sediment: Soil and other debris that has been eroded and transported by storm or well production run-off water.
- M. Source Separation: The act of keeping different types of waste materials separate beginning from the first time they become waste.
- N. Toxic: Poisonous to humans either immediately or after a long period of exposure.

- O. Trash: Any product or material unable to be reused, returned, recycled, or salvaged.
- P. Waste: Extra material or material that has reached the end of its useful life in its intended use. Waste includes salvageable, returnable, recyclable, and reusable material.

### **1.03 SUBMITTALS**

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Waste Disposal Reports: Submit at specified intervals, with details of quantities of trash and waste, means of disposal or reuse, and costs; show both totals to date and since last report.
  - 1. Submit updated Report with each Application for Progress Payment; failure to submit Report will delay payment.
  - 2. Submit Report on a form acceptable to Owner.
  - 3. Landfill Disposal: Include the following information:
    - a. Identification of material.
    - b. Amount, in tons or cubic yards (cubic meters), of trash/waste material from the project disposed of in landfills.
    - c. State the identity of landfills, total amount of tipping fees paid to landfill, and total disposal cost.
    - d. Include manifests, weight tickets, receipts, and invoices as evidence of quantity and cost.
  - 4. Incinerator Disposal: Include the following information:
    - a. Identification of material.
    - b. Amount, in tons or cubic yards (cubic meters), of trash/waste material from the project delivered to incinerators.
    - c. State the identity of incinerators, total amount of fees paid to incinerator, and total disposal cost.
    - d. Include manifests, weight tickets, receipts, and invoices as evidence of quantity and cost.
  - 5. Recycled and Salvaged Materials: Include the following information for each:
    - a. Identification of material, including those retrieved by installer for use on other projects.
    - b. Amount, in tons or cubic yards (cubic meters), date removed from the project site, and receiving party.
    - c. Transportation cost, amount paid or received for the material, and the net total cost or savings of salvage or recycling each material.
    - d. Include manifests, weight tickets, receipts, and invoices as evidence of quantity and cost.
    - e. Certification by receiving party that materials will not be disposed of in landfills or by incineration.
  - 6. Material Reused on Project: Include the following information for each:
    - a. Identification of material and how it was used in the project.
    - b. Amount, in tons or cubic yards (cubic meters).
    - c. Include weight tickets as evidence of quantity.
  - 7. Other Disposal Methods: Include information similar to that described above, as appropriate to disposal method.

## **PART 3 EXECUTION**

### **2.01 WASTE MANAGEMENT PROCEDURES**

- A. See Section 01 3000 for additional requirements for project meetings, reports, submittal procedures, and project documentation.
- B. See Section 01 5000 for additional requirements related to trash/waste collection and removal facilities and services.
- C. See Section 01 6000 for waste prevention requirements related to delivery, storage, and handling.

- D. See Section 01 7000 for trash/waste prevention procedures related to demolition, cutting and patching, installation, protection, and cleaning.

## **2.02 WASTE MANAGEMENT PLAN IMPLEMENTATION**

- A. Manager: Designate an on-site person or persons responsible for instructing workers and overseeing and documenting results of the Waste Management Plan.
- B. Communication: Distribute copies of the Waste Management Plan to job site foreman, each subcontractor, Owner, and Architect.
- C. Instruction: Provide on-site instruction of appropriate separation, handling, and recycling, salvage, reuse, and return methods to be used by all parties at the appropriate stages of the project.
- D. Meetings: Discuss trash/waste management goals and issues at project meetings.
  - 1. Pre-bid meeting.
  - 2. Pre-construction meeting.
  - 3. Regular job-site meetings.
- E. Facilities: Provide specific facilities for separation and storage of materials for recycling, salvage, reuse, return, and trash disposal, for use by all contractors and installers.
  - 1. Provide containers as required.
  - 2. Provide adequate space for pick-up and delivery and convenience to subcontractors.
  - 3. Keep recycling and trash/waste bin areas neat and clean and clearly marked in order to avoid contamination of materials.
- F. Hazardous Wastes: Separate, store, and dispose of hazardous wastes according to applicable regulations.
- G. Recycling: Separate, store, protect, and handle at the site identified recyclable waste products in order to prevent contamination of materials and to maximize recyclability of identified materials. Arrange for timely pickups from the site or deliveries to recycling facility in order to prevent contamination of recyclable materials.
- H. Reuse of Materials On-Site: Set aside, sort, and protect separated products in preparation for reuse.
- I. Salvage: Set aside, sort, and protect products to be salvaged for reuse off-site.

**END OF SECTION 01 7419**



**SECTION 01 7800**  
**CLOSEOUT SUBMITTALS**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Project Record Documents.
- B. Operation and Maintenance Data.
- C. Warranties and bonds.

**1.02 RELATED REQUIREMENTS**

- A. Section 00 7200 - General Conditions and 00 7300 - Supplementary Conditions: Performance bond and labor and material payment bonds, warranty, and correction of work.
- B. Section 01 3000 - Administrative Requirements: Submittals procedures, shop drawings, product data, and samples.
- C. Section 01 7000 - Execution and Closeout Requirements: Contract closeout procedures.
- D. Individual Product Sections: Specific requirements for operation and maintenance data.
- E. Individual Product Sections: Warranties required for specific products or Work.

**1.03 SUBMITTALS**

- A. Project Record Documents: Submit documents to Architect with claim for final Application for Payment.
- B. Operation and Maintenance Data:
  - 1. For equipment, or component parts of equipment put into service during construction and operated by Owner, submit completed documents within ten days after acceptance.
  - 2. Submit one copy of completed documents 15 days prior to final inspection. This copy will be reviewed and returned after final inspection, with Architect comments. Revise content of all document sets as required prior to final submission.
  - 3. Submit two sets of revised final documents in final form within 10 days after final inspection.
- C. Warranties and Bonds:
  - 1. For equipment or component parts of equipment put into service during construction with Owner's permission, submit documents within 10 days after acceptance.
  - 2. Make other submittals within 10 days after Date of Substantial Completion, prior to final Application for Payment.
  - 3. For items of Work for which acceptance is delayed beyond Date of Substantial Completion, submit within 10 days after acceptance, listing the date of acceptance as the beginning of the warranty period.

**PART 3 EXECUTION**

**2.01 PROJECT RECORD DOCUMENTS**

- A. Maintain on site one set of the following record documents; record actual revisions to the Work:
  - 1. Drawings.
  - 2. Addenda.
  - 3. Change Orders and other modifications to the Contract.
- B. Ensure entries are complete and accurate, enabling future reference by Owner.
- C. Store record documents separate from documents used for construction.
- D. Record information concurrent with construction progress.
- E. Record Drawings: Legibly mark each item to record actual construction including:
  - 1. Field changes of dimension and detail.
  - 2. Details not on original Contract drawings.

**2.02 OPERATION AND MAINTENANCE DATA**

- A. Source Data: For each product or system, list names, addresses and telephone numbers of Subcontractors and suppliers, including local source of supplies and replacement parts.
- B. Product Data: Mark each sheet to clearly identify specific products and component parts, and data applicable to installation. Delete inapplicable information.
- C. Drawings: Supplement product data to illustrate relations of component parts of equipment and systems, to show control and flow diagrams. Do not use Project Record Documents as maintenance drawings.
- D. Typed Text: As required to supplement product data. Provide logical sequence of instructions for each procedure, incorporating manufacturer's instructions.

**2.03 WARRANTIES AND BONDS**

- A. Obtain warranties and bonds, executed in duplicate by responsible Subcontractors, suppliers, and manufacturers, within 10 days after completion of the applicable item of work. Except for items put into use with Owner's permission, leave date of beginning of time of warranty until Date of Substantial completion is determined.
- B. Verify that documents are in proper form, contain full information, and are notarized.
- C. Co-execute submittals when required.
- D. Retain warranties and bonds until time specified for submittal.

**END OF SECTION 01 7800**

**SECTION 02 4100  
DEMOLITION**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Selective demolition of building elements for alteration purposes.

**1.02 RELATED REQUIREMENTS**

- A. Section 01 1000 - Summary: Limitations on Contractor's use of site and premises.
- B. Section 01 1000 - Summary: Description of items to be salvaged or removed for re-use by Contractor.
- C. Section 01 5000 - Temporary Facilities and Controls: Site fences, security, protective barriers, and waste removal.
- D. Section 01 6000 - Product Requirements: Handling and storage of items removed for salvage and relocation.
- E. Section 01 7000 - Execution and Closeout Requirements: Project conditions; protection of bench marks, survey control points, and existing construction to remain; reinstallation of removed products; temporary bracing and shoring.
- F. Section 31 2323 - Fill: Fill material for filling holes, pits, and excavations generated as a result of removal operations.

**1.03 REFERENCE STANDARDS**

- A. 29 CFR 1926 - U.S. Occupational Safety and Health Standards; current edition.
- B. NFPA 241 - Standard for Safeguarding Construction, Alteration, and Demolition Operations; 2013.

**1.04 SUBMITTALS**

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Project Record Documents: Accurately record actual locations of capped and active utilities and subsurface construction.

**PART 3 EXECUTION**

**2.01 SCOPE**

- A. Demolition will be coordinated with the Foundation of Arts who will continually occupy the building for the duration of the project.
- B. Remove other items indicated, for salvage, relocation, recycling, and \_\_\_\_\_.
- C. Fill excavations, open pits, and holes in ground areas generated as result of removals, using specified fill; compact fill as specified in Section 31 2200.

**2.02 GENERAL PROCEDURES AND PROJECT CONDITIONS**

- A. Comply with applicable codes and regulations for demolition operations and safety of adjacent structures and the public.
  - 1. Obtain required permits.
  - 2. Take precautions to prevent catastrophic or uncontrolled collapse of structures to be removed; do not allow worker or public access within range of potential collapse of unstable structures.
  - 3. Provide, erect, and maintain temporary barriers and security devices.
  - 4. Conduct operations to minimize effects on and interference with adjacent structures and occupants.
  - 5. Do not close or obstruct roadways or sidewalks without permit.

6. Conduct operations to minimize obstruction of public and private entrances and exits; do not obstruct required exits at any time; protect persons using entrances and exits from removal operations.
  7. Obtain written permission from owners of adjacent properties when demolition equipment will traverse, infringe upon or limit access to their property.
- B. Do not begin removal until receipt of notification to proceed from Owner.
  - C. Protect existing structures and other elements that are not to be removed.
    1. Provide bracing and shoring.
    2. Prevent movement or settlement of adjacent structures.
    3. Stop work immediately if adjacent structures appear to be in danger.
  - D. Minimize production of dust due to demolition operations; do not use water if that will result in ice, flooding, sedimentation of public waterways or storm sewers, or other pollution.
  - E. If hazardous materials are discovered during removal operations, stop work and notify Architect and Owner; hazardous materials include regulated asbestos containing materials, lead, PCB's, and mercury.

### **2.03 EXISTING UTILITIES**

- A. Coordinate work with utility companies; notify before starting work and comply with their requirements; obtain required permits.
- B. Protect existing utilities to remain from damage.
- C. Do not disrupt public utilities without permit from authority having jurisdiction.
- D. Do not close, shut off, or disrupt existing life safety systems that are in use without at least 7 days prior written notification to Owner.
- E. Do not close, shut off, or disrupt existing utility branches or take-offs that are in use without at least 3 days prior written notification to Owner.
- F. Locate and mark utilities to remain; mark using highly visible tags or flags, with identification of utility type; protect from damage due to subsequent construction, using substantial barricades if necessary.
- G. Remove exposed piping, valves, meters, equipment, supports, and foundations of disconnected and abandoned utilities.

### **2.04 SELECTIVE DEMOLITION FOR ALTERATIONS**

- A. Drawings showing existing construction and utilities are based on casual field observation and existing record documents only.
  1. Verify that construction and utility arrangements are as indicated.
  2. Report discrepancies to Architect before disturbing existing installation.
  3. Beginning of demolition work constitutes acceptance of existing conditions that would be apparent upon examination prior to starting demolition.
- B. Maintain weatherproof exterior building enclosure except for interruptions required for replacement or modifications; take care to prevent water and humidity damage.
- C. Remove existing work as indicated and as required to accomplish new work.
  1. Remove rotted wood, corroded metals, and deteriorated masonry and concrete; replace with new construction specified.
  2. Remove items indicated on drawings.
- D. Services (Including but not limited to HVAC, Plumbing, Fire Protection, Electrical, Telecommunications, and \_\_\_\_\_): Remove existing systems and equipment as indicated.
  1. Maintain existing active systems that are to remain in operation; maintain access to equipment and operational components.
  2. Where existing active systems serve occupied facilities but are to be replaced with new services, maintain existing systems in service until new systems are complete and ready for service.



3. Verify that abandoned services serve only abandoned facilities before removal.
  4. Remove abandoned pipe, ducts, conduits, and equipment, including those above accessible ceilings; remove back to source of supply where possible, otherwise cap stub and tag with identification.
- E. Protect existing work to remain.
1. Prevent movement of structure; provide shoring and bracing if necessary.
  2. Perform cutting to accomplish removals neatly and as specified for cutting new work.
  3. Repair adjacent construction and finishes damaged during removal work.
  4. Patch as specified for patching new work.

**2.05 DEBRIS AND WASTE REMOVAL**

- A. Remove debris, junk, and trash from site.
- B. Leave site in clean condition, ready for subsequent work.
- C. Clean up spillage and wind-blown debris from public and private lands.

**END OF SECTION 02 4100**



**SECTION 03 4500**  
**PRECAST ARCHITECTURAL CONCRETE**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Architectural precast concrete wall panels.
- B. Supports, anchors, and attachments.

**1.02 RELATED REQUIREMENTS**

- A. Section 07 2100 - Thermal Insulation: Integral insulation.

**1.03 REFERENCE STANDARDS**

- A. ACI 318 - Building Code Requirements for Structural Concrete and Commentary; 2014 (Errata 2017).
- B. ASTM A36/A36M - Standard Specification for Carbon Structural Steel; 2014.
- C. ASTM A153/A153M - Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware; 2016a.
- D. ASTM A1064/A1064M - Standard Specification for Carbon-Steel Wire and Welded Wire Reinforcement, Plain and Deformed, for Concrete; 2017.
- E. ASTM C1602/C1602M - Standard Specification for Mixing Water Used in the Production of Hydraulic Cement Concrete; 2012.
- F. ASTM C150/C150M - Standard Specification for Portland Cement; 2018.
- G. ASTM C979/C979M - Standard Specification for Pigments for Integrally Colored Concrete; 2016.
- H. IAS AC157 - Accreditation Criteria for Fabricator Inspection Programs for Reinforced and Precast/Prestressed Concrete; 2017.
- I. PCI MNL-117 - Manual for Quality Control for Plants and Production of Architectural Precast Concrete Products; 2013.
- J. PCI MNL-120 - PCI Design Handbook - Precast and Prestressed Concrete; 2012.
- K. PCI MNL-122 - Architectural Precast Concrete; 2007.
- L. PCI MNL-123 - Design and Typical Details of Connections for Precast and Prestressed Concrete; 1988.
- M. PCI MNL-135 - Tolerance Manual for Precast and Prestressed Concrete Construction; 2000.

**1.04 SUBMITTALS**

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Manufacturer's information on accessory products, including pigments, admixtures, inserts, plates, etc.
- C. Shop Drawings: Indicate layout, unit locations, configuration, unit identification marks, reinforcement, integral insulation, insulated panel system connectors, connection details, support items, location of lifting devices, dimensions, openings, and relationship to adjacent materials. Provide erection drawings.
- D. Samples: Submit two samples, 6 by 6 inch (\_\_\_\_by\_\_\_\_ mm) in size, illustrating surface finish, color and texture.
- E. Fabricator's Qualification Statement: Provide documentation showing precast concrete fabricator is accredited under IAS AC157.

**1.05 QUALITY ASSURANCE**

- A. Fabricator Qualifications:

1. Firm having at least 2 years of documented experience in production of precast concrete of the type required.
2. Fabricator Qualifications: Precast concrete fabricator accredited by IAS according to IAS AC157.

#### **1.06 DELIVERY, STORAGE, AND HANDLING**

- A. Handling: Lift and support precast units only from support points.
- B. Protect units to prevent staining, chipping, or spalling of concrete.

### **PART 2 PRODUCTS**

#### **2.01 MANUFACTURERS**

- A. Architectural Precast Concrete:
  1. Any manufacturer holding a PCI Group A Plant Certification for the types of products specified; see [www.pci.org/#sle](http://www.pci.org/#sle).

#### **2.02 PRECAST UNITS, GENERAL**

- A. Precast Architectural Concrete Units: Comply with PCI MNL-120, PCI MNL-122, PCI MNL-123, PCI MNL-135, and ACI 318.
  1. Design Loads: Static loads, anticipated dynamic loading, including positive and negative wind loads, thermal movement loads, and erection forces as defined by applicable code.
  2. Calculate structural properties of units in accordance with ACI 318.
  3. Accommodate construction tolerances, deflection of building structural members, and clearances of intended openings.
  4. Provide connections that accommodate building movement and thermal movement and adjust to misalignment of structure without unit distortion or damage.
- B. Finish Type \_\_\_\_: Ensure exposed-to-view finish surfaces of precast units are uniform in color and appearance.

#### **2.03 REINFORCEMENT**

- A. Steel Welded Wire Reinforcement (WWR): Plain type, ASTM A1064/A1064M.
  1. Form: Flat Sheets.
  2. WWR Style: 4 by 8-W6 by W10 (102 by 203-MW39 by MW65).

#### **2.04 CONCRETE MATERIALS**

- A. Cement: ASTM C150/C150M, Type I - Normal Portland type.
- B. Color Additives: Pure, concentrated mineral pigments specifically intended for mixing into concrete and complying with ASTM C979/C979M.
  1. Color(s): Match existing.
- C. Water: ASTM C1602/C1602M; clean, potable, and not detrimental to concrete.

#### **2.05 SUPPORT DEVICES**

- A. Connecting and Support Devices; Anchors and Inserts: ASTM A36/A36M steel; hot-dip galvanized in accordance with ASTM A153/A153M.
  1. Clean surfaces of rust, scale, grease, and foreign matter.

#### **2.06 FABRICATION**

- A. Fabricate in compliance with PCI MNL-117 and PCI MNL-135.

#### **2.07 FABRICATION TOLERANCES**

- A. Comply with PCI MNL-117 and PCI MNL-135, except as specifically amended below.

### **PART 3 EXECUTION**

#### **3.01 EXAMINATION**

- A. Verify that building structure, anchors, devices, and openings are ready to receive work of this section.

**3.02 ERECTION**

- A. Erect units without damage to shape or finish. Replace or repair damaged panels.
- B. Erect units level and plumb within allowable tolerances.
- C. When units require adjustment beyond design or tolerance criteria, discontinue affected work; advise Architect.
- D. Fasten units in place with mechanical connections.

**3.03 TOLERANCES**

- A. Erect members level and plumb within allowable tolerances. Comply with PCI MNL-135, except as specifically amended below.

**END OF SECTION 03 4500**



**SECTION 04 0511**  
**MORTAR AND MASONRY GROUT**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Mortar for masonry.

**1.02 RELATED REQUIREMENTS**

- A. Section 04 2001 - Masonry Veneer: Installation of mortar.

**1.03 REFERENCE STANDARDS**

- A. TMS 402/602 - Building Code Requirements and Specification for Masonry Structures; 2016.
- B. ASTM C5 - Standard Specification for Quicklime for Structural Purposes; 2010.
- C. ASTM C91/C91M - Standard Specification for Masonry Cement; 2012.
- D. ASTM C144 - Standard Specification for Aggregate for Masonry Mortar; 2017.
- E. ASTM C150/C150M - Standard Specification for Portland Cement; 2018.
- F. ASTM C207 - Standard Specification for Hydrated Lime for Masonry Purposes; 2006 (Reapproved 2011).
- G. ASTM C270 - Standard Specification for Mortar for Unit Masonry; 2014a.
- H. ASTM C387/C387M - Standard Specification for Packaged, Dry, Combined Materials for Concrete and High Strength Mortar; 2015.

**1.04 SUBMITTALS**

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.

**1.05 QUALITY ASSURANCE**

- A. Comply with provisions of TMS 402/602, except where exceeded by requirements of the contract documents.

**1.06 FIELD CONDITIONS**

- A. Cold and Hot Weather Requirements: Comply with requirements of TMS 402/602 or applicable building code, whichever is more stringent.

**PART 2 PRODUCTS**

**2.01 MORTAR AND GROUT APPLICATIONS**

- A. At Contractor's option, mortar and grout may be field-mixed from packaged dry materials, made from factory premixed dry materials with addition of water only, or ready-mixed.
- B. Mortar Mix Designs: ASTM C270, Property Specification.
  - 1. Exterior, Non-loadbearing Masonry: Type N.

**2.02 MATERIALS**

- A. Packaged Dry Material for Mortar for Unit Masonry: Premixed Portland cement, hydrated lime, and sand; complying with ASTM C387/C387M and capable of producing mortar of the specified strength in accordance with ASTM C270 with the addition of water only.
  - 1. Color: Match existing.
- B. Portland Cement: ASTM C150/C150M.
  - 1. Type: Type I - Normal; ASTM C150/C150M.
  - 2. Color: Match existing.
- C. Masonry Cement: ASTM C91/C91M.
  - 1. Type: Type N; ASTM C91/C91M.
- D. Hydrated Lime: ASTM C207, Type S.
- E. Quicklime: ASTM C5, non-hydraulic type.

- F. Mortar Aggregate: ASTM C144.
- G. Water: Clean and potable.

**2.03 MORTAR MIXING**

- A. Thoroughly mix mortar ingredients using mechanical batch mixer, in accordance with ASTM C270 and in quantities needed for immediate use.
- B. Maintain sand uniformly damp immediately before the mixing process.
- C. Do not use anti-freeze compounds to lower the freezing point of mortar.
- D. If water is lost by evaporation, re-temper only within two hours of mixing.

**END OF SECTION 04 0511**



**SECTION 04 2001  
MASONRY VENEER**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Clay Facing Brick.
- B. Reinforcement and Anchorage.
- C. Flashings.
- D. Accessories.

**1.02 RELATED REQUIREMENTS**

- A. Section 04 0511 - Mortar and Masonry Grout.
- B. Section 06 1000 - Rough Carpentry: Wood stud backup for masonry veneer.
- C. Section 07 9200 - Joint Sealants: Sealing control and expansion joints.

**1.03 REFERENCE STANDARDS**

- A. TMS 402/602 - Building Code Requirements and Specification for Masonry Structures; 2016.
- B. ASTM A153/A153M - Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware; 2016a.
- C. ASTM C216 - Standard Specification for Facing Brick (Solid Masonry Units Made From Clay or Shale); 2017a.
- D. BIA Technical Notes No. 7 - Water Penetration Resistance – Design and Detailing; 2017.
- E. BIA Technical Notes No. 28B - Brick Veneer/Steel Stud Walls; 2005.
- F. BIA Technical Notes No. 46 - Maintenance of Brick Masonry; 2017.

**1.04 SUBMITTALS**

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Samples: Submit four samples of facing brick units to illustrate color, texture, and extremes of color range.

**1.05 QUALITY ASSURANCE**

- A. Comply with provisions of TMS 402/602, except where exceeded by requirements of the contract documents.

**1.06 MOCK-UP**

- A. Mock-up may remain as part of the Work.

**1.07 DELIVERY, STORAGE, AND HANDLING**

- A. Deliver, handle, and store masonry units by means that will prevent mechanical damage and contamination by other materials.

**1.08 FIELD CONDITIONS**

- A. Cold and Hot Weather Requirements: Comply with requirements of TMS 402/602 or applicable building code, whichever is more stringent.

**PART 2 PRODUCTS**

**2.01 BRICK UNITS**

- A. Facing Brick: ASTM C216, Type Match existing, Grade Match existing.
  - 1. Color and texture to match Architect's sample.
  - 2. Color and Texture: Match existing.
  - 3. Nominal Size: Match existing.

## **2.02 MORTAR AND GROUT MATERIALS**

- A. Mortar: As specified in Section 04 0511.

## **2.03 REINFORCEMENT AND ANCHORAGE**

- A. Masonry Veneer Anchors: 2-piece anchors that permit differential movement between masonry veneer and structural backup, hot dip galvanized to ASTM A 153/A 153M, Class B.
  - 1. Anchor plates: Not less than 0.075 inch (1.91 mm) thick, designed for fastening to structural backup through sheathing by two fasteners; provide design with legs that penetrate sheathing and insulation to provide positive anchorage.
  - 2. Wire ties: Manufacturer's standard shape, 0.1875 inch (4.75 mm) thick.
  - 3. Vertical adjustment: Not less than 3-1/2 inches (89 mm).
  - 4. Seismic Feature: Provide lip, hook, or clip on end of wire ties to engage or enclose not less than one continuous horizontal joint reinforcement wire of 0.1483 inch (3.8 mm) diameter.

## **2.04 FLASHINGS**

- A. Copper/Rubberized Asphalt Flashing: 3 oz/sq ft (0.915 kg/sq m) copper sheet coated with elastic asphalt compound.

## **2.05 ACCESSORIES**

- A. Weeps: Molded PVC grilles, insect resistant.
- B. Cavity Vents: Polyester mesh.
- C. Drainage Fabric: Polyester mesh.
- D. Cleaning Solution: Non-acidic, not harmful to masonry work or adjacent materials.

## **PART 3 EXECUTION**

### **3.01 EXAMINATION**

- A. Verify that field conditions are acceptable and are ready to receive masonry.

### **3.02 COURSING**

- A. Establish lines, levels, and coursing indicated. Protect from displacement.
- B. Maintain masonry courses to uniform dimension. Form vertical and horizontal joints of uniform thickness.
- C. Brick Units:
  - 1. Bond: As indicated for different locations.
  - 2. Coursing: Three units and three mortar joints to equal Match existing inches (\_\_\_\_ mm).
  - 3. Mortar Joints: Match existing.

### **3.03 PLACING AND BONDING**

- A. Lay solid masonry units in full bed of mortar, with full head joints, uniformly jointed with other work.
- B. Lay hollow masonry units with face shell bedding on head and bed joints.
- C. Buttering corners of joints or excessive furrowing of mortar joints is not permitted.
- D. Remove excess mortar as work progresses.
- E. Do not shift or tap masonry units after mortar has achieved initial set. Where adjustment must be made, remove mortar and replace.
- F. Perform job site cutting of masonry units with proper tools to provide straight, clean, unchipped edges. Prevent broken masonry unit corners or edges.
- G. Isolate top joint of masonry veneer from horizontal structural framing members or support angles with compressible joint filler.

### **3.04 WEEPS/CAVITY VENTS**

- A. Install weeps in veneer walls at 24 inches (600 mm) on center horizontally above through-wall flashing, above shelf angles and lintels, and at bottom of walls.
- B. Install cavity vents in veneer walls at 32 inches (800 mm) on center horizontally below shelf angles and lintels and at top of walls.

### **3.05 CAVITY MORTAR CONTROL**

- A. Do not permit mortar to drop or accumulate into cavity air space or to plug weep/cavity vents.
- B. For cavity walls, build inner wythe ahead of outer wythe to accommodate accessories.

### **3.06 REINFORCEMENT AND ANCHORAGE - MASONRY VENEER**

- A. Stud Back-Up: Secure veneer anchors to stud framed back-up and embed into masonry veneer at maximum 16 inches (400 mm) on center vertically and 24 inches (600 mm) on center horizontally. Place additional anchors at perimeter of openings and ends of panels, so maximum spacing of anchors is 8 inches (200 mm) on center.
- B. Seismic Reinforcement: Connect veneer anchors with continuous horizontal wire reinforcement before embedding anchors in mortar.

### **3.07 MASONRY FLASHINGS**

- A. Whether or not specifically indicated, install masonry flashing to divert water to exterior at all locations where downward flow of water will be interrupted.
  - 1. Extend flashings full width at such interruptions and at least 6 inches (152 mm), minimum, into adjacent masonry or turn up at least 8 inches (203 mm), minimum, to form watertight pan at non-masonry construction.
  - 2. Remove or cover protrusions or sharp edges that could puncture flashings.
- B. Extend metal flashings to within 1/4 inch (6 mm) of exterior face of masonry.
- C. Lap end joints of flashings at least 6 inches (152 mm), minimum, and seal watertight with flashing sealant/adhesive.

### **3.08 CONTROL AND EXPANSION JOINTS**

- A. Do not continue horizontal joint reinforcement through control or expansion joints.
- B. Form control joint with a sheet building paper bond breaker fitted to one side of the hollow contour end of the block unit. Fill the resultant core with grout fill. Rake joint at exposed unit faces for placement of backer rod and sealant.
- C. Size control joints as indicated on drawings; if not indicated, 3/4 inch (19 mm) wide and deep.

### **3.09 CLEANING**

- A. Remove excess mortar and mortar smears as work progresses.
- B. Replace defective mortar. Match adjacent work.
- C. Clean soiled surfaces with cleaning solution.

**END OF SECTION 04 2001**



**SECTION 06 1000  
ROUGH CARPENTRY**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Structural dimension lumber framing.
- B. Non-structural dimension lumber framing.
- C. Sheathing.
- D. Preservative treated wood materials.
- E. Concealed wood blocking, nailers, and supports.

**1.02 REFERENCE STANDARDS**

- A. AWC (WFCM) - Wood Frame Construction Manual for One- and Two-Family Dwellings; 2015.
- B. ASTM A153/A153M - Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware; 2016a.
- C. ASTM C1396/C1396M - Standard Specification for Gypsum Board; 2017.
- D. AWPA U1 - Use Category System: User Specification for Treated Wood; 2017.
- E. ICC-ES AC308 - Acceptance Criteria for Termite Physical Barrier Systems; 2014, with Editorial Revision (2017).
- F. PS 1 - Structural Plywood; 2009.
- G. PS 20 - American Softwood Lumber Standard; 2015.

**1.03 SUBMITTALS**

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Provide technical data on insulated sheathing.
- C. ABAA Manufacturer Qualification: Submit documentation of current evaluation of proposed manufacturer and materials.

**1.04 QUALITY ASSURANCE**

- A. Air Barrier Association of America (ABAA) Evaluated Materials Program (EAP); [www.airbarrier.org/#sle](http://www.airbarrier.org/#sle): Use evaluated materials from a single manufacturer regularly engaged in air barrier material manufacture. Use secondary materials approved in writing by primary material manufacturer.

**1.05 WARRANTY**

- A. See Section 01 7800 - Closeout Submittals, for additional warranty requirements.
- B. Correct defective Work within a five year period after Date of Substantial Completion.

**PART 2 PRODUCTS**

**2.01 GENERAL REQUIREMENTS**

- A. Dimension Lumber: Comply with PS 20 and requirements of specified grading agencies.
  - 1. If no species is specified, provide any species graded by the agency specified; if no grading agency is specified, provide lumber graded by any grading agency meeting the specified requirements.
  - 2. Grading Agency: Any grading agency whose rules are approved by the Board of Review, American Lumber Standard Committee ([www.alsc.org](http://www.alsc.org)) and who provides grading service for the species and grade specified; provide lumber stamped with grade mark unless otherwise indicated.
  - 3. Lumber of other species or grades is acceptable provided structural and appearance characteristics are equivalent to or better than products specified.
- B. Lumber fabricated from old growth timber is not permitted.

- C. Provide wood harvested within a 500 mile (805 km) radius of the project site.

## **2.02 DIMENSION LUMBER FOR CONCEALED APPLICATIONS**

- A. Sizes: Nominal sizes as indicated on drawings, S4S.
- B. Moisture Content: S-dry or MC19.
- C. Stud Framing (2 by 2 through 2 by 6 (50 by 50 mm through 50 by 150 mm) ):
  - 1. Grade: No. 2.
- D. Miscellaneous Framing, Blocking, Nailers, Grounds, and Furring:
  - 1. Lumber: S4S, No. 2 or Standard Grade.
  - 2. Boards: Standard or No. 3.

## **2.03 CONSTRUCTION PANELS**

- A. Underlayment: APA Underlayment; plywood, Exposure 2, 1/2 inch (12.5 mm) thick. Fully sanded faces at resilient flooring.
- B. Wall Sheathing: Plywood, PS 1, Grade C-D, Exposure I.
- C. Wall Sheathing: Gypsum, complying with requirements of ASTM C1396/C1396M for gypsum sheathing, V-shaped long edges, 5/8 inch Type X fire resistant (16 mm Type X fire resistant).
- D. Wall Sheathing: Oriented strand board wood structural panel; PS 2.
  - 1. Grade: Structural 1 Sheathing.
  - 2. Bond Classification: Exposure 1.
  - 3. Performance Category: 5/8 PERF CAT.
  - 4. Edges: Square.

## **2.04 ACCESSORIES**

- A. Fasteners and Anchors:
  - 1. Metal and Finish: Hot-dipped galvanized steel complying with ASTM A153/A153M for high humidity and preservative-treated wood locations, unfinished steel elsewhere.
  - 2. Drywall Screws: Bugle head, hardened steel, power driven type, length three times thickness of sheathing.
- B. Sill Gasket on Top of Foundation Wall: 1/4 inch (6 mm) thick, plate width, closed cell plastic foam from continuous rolls.
- C. Termite-Resistant Sill Plate Barrier: Self-adhesive, film-backed barrier with release sheet; adheres to concrete substrates and blocks termite access.
  - 1. Thickness: 68 mils (0.068 inch) (1.7 mm).
  - 2. Termite Resistance: 100 percent when tested in accordance with ICC-ES AC380.
- D. Subfloor Adhesives: Waterproof, air cure type, cartridge dispensed.
- E. Building Paper: Water resistant Kraft paper.

## **2.05 FACTORY WOOD TREATMENT**

- A. Treated Lumber and Plywood: Comply with requirements of AWPA U1 - Use Category System for wood treatments determined by use categories, expected service conditions, and specific applications.
  - 1. Preservative-Treated Wood: Provide lumber and plywood marked or stamped by an ALSC-accredited testing agency, certifying level and type of treatment in accordance with AWPA standards.
- B. Preservative Treatment:
  - 1. Preservative Pressure Treatment of Lumber Above Grade: AWPA U1, Use Category UC3B, Commodity Specification A using waterborne preservative.
    - a. Kiln dry lumber after treatment to maximum moisture content of 19 percent.
    - b. Treat lumber in contact with roofing, flashing, or waterproofing.
    - c. Treat lumber in contact with masonry or concrete.

### **PART 3 EXECUTION**

#### **3.01 PREPARATION**

- A. Install sill gasket under sill plate of framed walls bearing on foundations; puncture gasket cleanly to fit tightly around protruding anchor bolts.

#### **3.02 INSTALLATION - GENERAL**

- A. Select material sizes to minimize waste.
- B. Reuse scrap to the greatest extent possible; clearly separate scrap for use on site as accessory components, including: shims, bracing, and blocking.
- C. Where treated wood is used on interior, provide temporary ventilation during and immediately after installation sufficient to remove indoor air contaminants.

#### **3.03 FRAMING INSTALLATION**

- A. Set structural members level, plumb, and true to line. Discard pieces with defects that would lower required strength or result in unacceptable appearance of exposed members.
- B. Make provisions for temporary construction loads, and provide temporary bracing sufficient to maintain structure in true alignment and safe condition until completion of erection and installation of permanent bracing.
- C. Install structural members full length without splices unless otherwise specifically detailed.
- D. Comply with member sizes, spacing, and configurations indicated, and fastener size and spacing indicated, but not less than required by applicable codes, AWC (WFCM) Wood Frame Construction Manual, and \_\_\_\_\_.
- E. Construct double joist headers at floor and ceiling openings and under wall stud partitions that are parallel to floor joists; use metal joist hangers unless otherwise detailed.
- F. Frame wall openings with two or more studs at each jamb; support headers on cripple studs.

#### **3.04 BLOCKING, NAILERS, AND SUPPORTS**

- A. Provide framing and blocking members as indicated or as required to support finishes, fixtures, specialty items, and trim.
- B. In framed assemblies that have concealed spaces, provide solid wood fireblocking as required by applicable local code, to close concealed draft openings between floors and between top story and roof/attic space; other material acceptable to code authorities may be used in lieu of solid wood blocking.
- C. In walls, provide blocking attached to studs as backing and support for wall-mounted items, unless item can be securely fastened to two or more studs or other method of support is explicitly indicated.
- D. Where ceiling-mounting is indicated, provide blocking and supplementary supports above ceiling, unless other method of support is explicitly indicated.
- E. Provide the following specific non-structural framing and blocking:
  - 1. Cabinets and shelf supports.
  - 2. Wall brackets.
  - 3. Wall paneling and trim.

#### **3.05 INSTALLATION OF CONSTRUCTION PANELS**

- A. Subflooring/Underlayment Combination: Glue and nail to framing; staples are not permitted.
- B. Underlayment: Secure to subflooring with nails and glue.
  - 1. At locations where resilient flooring will be installed, fill and sand splits, gaps, and rough areas.
  - 2. Place building paper between floor underlayment and subflooring.

- C. Wall Sheathing: Secure with long dimension perpendicular to wall studs, with ends over firm bearing and staggered, using nails, screws, or staples.
- D. Wall Sheathing and Roof Sheathing with Laminated Water-Resistive Barrier and Air Barrier: Secure to studs as recommended by manufacturer.
  - 1. Install with laminated water-resistive and air barrier on exterior side of sheathing.
  - 2. Do not bridge building expansion joints; cut and space edges of panels to match spacing of structural support elements.
  - 3. Use only mechanically attached and drainable EIFS and exterior insulation with wall sheathing with laminated water-resistive and air barrier.
  - 4. Apply manufacturer's standard seam tape to joints between sheathing panels. Use tape gun or hard rubber roller as recommended by manufacturer.

### **3.06 TOLERANCES**

- A. Framing Members: 1/4 inch (6 mm) from true position, maximum.
- B. Variation from Plane (Other than Floors): 1/4 inch in 10 feet (2 mm/m) maximum, and 1/4 inch in 30 feet (7 mm in 10 m) maximum.

### **3.07 FIELD QUALITY CONTROL**

- A. See Section 01 4000 - Quality Requirements, for additional requirements.
- B. Coordination of ABAA Tests and Inspections:
  - 1. Provide testing and inspection required by ABAA QAP.
  - 2. Notify in ABAA writing of schedule for air barrier work. Allow adequate time for testing and inspection.
  - 3. Cooperate with ABAA testing agency.
  - 4. Allow access to air barrier work areas and staging.
  - 5. Do not cover air barrier work until tested, inspected, and accepted.

### **3.08 CLEANING**

- A. Waste Disposal: Comply with the requirements of Section 01 7419 - Construction Waste Management and Disposal.
  - 1. Comply with applicable regulations.
  - 2. Do not burn scrap on project site.
  - 3. Do not burn scraps that have been pressure treated.
  - 4. Do not send materials treated with pentachlorophenol, CCA, or ACA to co-generation facilities or "waste-to-energy" facilities.
- B. Do not leave any wood, shavings, sawdust, etc. on the ground or buried in fill.
- C. Prevent sawdust and wood shavings from entering the storm drainage system.

**END OF SECTION 06 1000**



**SECTION 06 2000**  
**FINISH CARPENTRY**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Finish carpentry items.
- B. Wood door frames, glazed frames.
- C. Wood casings and moldings.
- D. Hardware and attachment accessories.

**1.02 RELATED REQUIREMENTS**

- A. Section 06 1000 - Rough Carpentry: Support framing, grounds, and concealed blocking.
- B. Section 06 4100 - Architectural Wood Casework: Shop fabricated custom cabinet work.
- C. Section 08 1416 - Flush Wood Doors.
- D. Section 08 1433 - Stile and Rail Wood Doors.
- E. Section 09 9000 - Painting and Coating

**1.03 REFERENCE STANDARDS**

- A. AWI/AWMAC/WI (AWS) - Architectural Woodwork Standards; 2014, with Errata (2016).
- B. AWMAC/WI (NAAWS) - North American Architectural Woodwork Standards, U.S. Version 3.1; 2016, with Errata (2017).
- C. BHMA A156.9 - American National Standard for Cabinet Hardware; 2015.
- D. NEMA LD 3 - High-Pressure Decorative Laminates; 2005.

**1.04 ADMINISTRATIVE REQUIREMENTS**

- A. Coordinate the work with plumbing rough-in, electrical rough-in, and installation of associated and adjacent components.

**1.05 SUBMITTALS**

- A. See Section 01 3000 - Administrative Requirements for submittal procedures.
- B. Shop Drawings: Indicate materials, component profiles, fastening methods, jointing details, and accessories.
  - 1. Provide the information required by AWI/AWMAC/WI (AWS) or AWMAC/WI (NAAWS).
  - 2. Include certification program label.
- C. Samples: Submit two samples of finish plywood, \_\_\_\_by\_\_\_\_ inch (\_\_\_\_by\_\_\_\_ mm) in size illustrating wood grain and specified finish.
- D. Samples: Submit two samples of wood trim \_\_\_\_ inch (\_\_\_\_ mm) long.
- E. Certificate: Submit labels and certificates required by quality assurance and quality control programs.

**1.06 QUALITY ASSURANCE**

- A. Fabricator Qualifications: Company specializing in fabricating the products specified in this section with minimum five years of documented experience.
  - 1. Accredited participant in the specified certification program prior to the commencement of fabrication and throughout the duration of the project.
- B. Quality Certification:
  - 1. Provide labels or certificates indicating that the work complies with AWI/AWMAC/WI (AWS) or AWMAC/WI (NAAWS) requirements for grade or grades specified.
  - 2. Provide designated labels on shop drawings as required by certification program.
  - 3. Provide designated labels on installed products as required by certification program.

4. Submit certifications upon completion of installation that verifies this work is in compliance with specified requirements.

### **1.07 DELIVERY, STORAGE, AND HANDLING**

- A. Protect work from moisture damage.

## **PART 2 PRODUCTS**

### **2.01 FINISH CARPENTRY ITEMS**

- A. Quality Standard: Custom Grade, in accordance with AWI/AWMAC/WI (AWS) or AWMAC/WI (NAAWS), unless noted otherwise.
- B. Interior Woodwork Items:
  1. Moldings, Bases, Casings, and Miscellaneous Trim: Clear white pine; prepare for paint finish.
  2. Door, Glazed Light, and Pocket Door Frames: White birch; prepare for paint finish.

### **2.02 WOOD-BASED COMPONENTS**

- A. Wood fabricated from old growth timber is not permitted.
- B. Provide wood harvested within a 500 mile (805 km) radius of the project site.

### **2.03 PLASTIC LAMINATE MATERIALS**

- A. Plastic Laminate: NEMA LD 3, HGS; color as selected by Architect; textured, low gloss finish.
- B. Laminate Adhesive: Type recommended by laminate manufacturer to suit application; not containing formaldehyde or other volatile organic compounds.

### **2.04 FASTENINGS**

- A. Adhesive for Purposes Other Than Laminate Installation: Suitable for the purpose; not containing formaldehyde or other volatile organic compounds.
- B. Fasteners: Of size and type to suit application; \_\_\_\_\_ finish in concealed locations and \_\_\_\_\_ finish in exposed locations.

### **2.05 ACCESSORIES**

- A. Primer: Alkyd primer sealer.
- B. Wood Filler: Solvent base, tinted to match surface finish color.

### **2.06 HARDWARE**

- A. Hardware: Comply with BHMA A156.9.
- B. Americans with Disabilities Act (ADA)-Compliant Vanity and Countertop Brackets:
  1. Material: Steel.
  2. Finish: Manufacturer's standard, factory-applied primer.

### **2.07 FABRICATION**

- A. Shop assemble work for delivery to site, permitting passage through building openings.
- B. Cap exposed plastic laminate finish edges with material of same finish and pattern.
- C. When necessary to cut and fit on site, provide materials with ample allowance for cutting. Provide trim for scribing and site cutting.
- D. Apply plastic laminate finish in full uninterrupted sheets consistent with manufactured sizes. Fit corners and joints hairline; secure with concealed fasteners. Slightly bevel arises. Locate counter butt joints minimum 2 feet from sink cut-outs. (Locate counter butt joints minimum 600 mm from sink cut-outs.)

### **2.08 SHOP FINISHING**

- A. Sand work smooth and set exposed nails and screws.
- B. Apply wood filler in exposed nail and screw indentations.

- C. On items to receive transparent finishes, use wood filler that matches surrounding surfaces and is of type recommended for the applicable finish.

### **PART 3 EXECUTION**

#### **3.01 EXAMINATION**

- A. Verify adequacy of backing and support framing.
- B. Verify mechanical, electrical, and building items affecting work of this section are placed and ready to receive this work.

#### **3.02 INSTALLATION**

- A. Install work in accordance with AWI/AWMAC/WI (AWS) or AWMAC/WI (NAAWS) requirements for grade indicated.
- B. Set and secure materials and components in place, plumb and level.
- C. Carefully scribe work abutting other components, with maximum gaps of 1/32 inch (0.79 mm). Do not use additional overlay trim to conceal larger gaps.

#### **3.03 TOLERANCES**

- A. Maximum Variation from True Position: 1/16 inch (1.6 mm).
- B. Maximum Offset from True Alignment with Abutting Materials: 1/32 inch (0.79 mm).

**END OF SECTION 06 2000**



**SECTION 07 2116  
BATT INSULATION**

**PART 1 - GENERAL**

**1.01 SUMMARY**

- A. Section Includes: Insulation and air sealing system, including insulation, foam sealant and accessories.

**1.02 SUBMITTALS**

- A. Product Data: Submit data on product characteristics, performance criteria, and limitations, including the following:
  - 1. General installation/application instruction.
  - 2. Environmental conditions required for installation and installation techniques.
  - 3. Safety requirements for application of products.
- B. Installer's/Applicator's Qualifications: Submit copy of Installer's/Applicator's certification from manufacturer.
- C. Sustainable Design: Provide manufacturer's certificates prepared by an independent, third party certifying to the following:
  - 1. Recycled material content for products with recycled content.
  - 2. Volatile organic compound content for each interior adhesive and sealant and related primer.
- D. Warranty: Submit manufacturer's standard one-year warranty against defects in material or manufacturing.

**1.03 QUALITY ASSURANCE**

- A. Installer's/Applicator's Qualifications: Company with a minimum of two years in performing work of this section and certified by manufacturer as an approved Installer/Applicator.
- B. Volatile Organic Compound (VOC) Emissions: Provide products complying with GREENGUARD Product Emission Standard for Children and Schools.
- C. Recycled Content: Fiberglass insulation shall contain minimum 50 percent recycled content.

**1.04 DELIVERY, STORAGE, AND HANDLING**

- A. Delivery: Deliver materials in manufacturer's original packaging.
- B. Storage: Store and protect products in accordance with manufacturer's instructions. Store with seals and labels intact and legible. Store inside and in a dry location. Protect insulation materials from moisture and soiling. Provide ventilation to prevent condensation and degradation of products.
- C. Inspection: Arrange storage of products to permit access for inspection. Periodically inspect to verify products are undamaged and are maintained in acceptable condition.

**PART 2 - PRODUCTS**

**2.01 MANUFACTURER**

- A. Insulation and Air Sealing System: EnergyComplete® with Flexible Seal Technology Whole Home Insulation and Air Sealing System by Owens Corning.

**2.02 SYSTEM DESCRIPTION**

- A. General: System consists of an air infiltration barrier applied to joints between materials of the exterior and interior wall framing to eliminate air infiltration into the building and the installation of insulation to reduce thermal transmission.

**2.03 MATERIALS**

- A. Batt Insulation:

1. Batt Insulation, Kraft Faced: ASTM C 665, Type II, Class C preformed glass fiber batt type, Kraft paper faced one side.
  2. Minimum R-Value, Thickness 5-1/2 Inches: R-18, using R-19 6-1/4 inch batt compressed.
  3. Batt Size: Friction fit of sizes to fit stud spacing.
- B. Foam Sealant:
1. Material: High-efficiency foam sealant.
  2. Water Vapor Permeance:
    - a. ASTM E 96 (dry cup): Greater than 2 perm.
    - b. ASTM E 96 (wet cup): Greater than 30 perm
  3. Dimensional Stability: ASTM D 2126, maximum 1.0% linear change at -40°F, ambient RH after 2 weeks max 2.0% linear change at 100°F, 97% RH after 2 weeks.
  4. Durability: ASTM C 719, more than 10 cycles; no cohesive failure or cracking.
  5. Flame Spread: ASTM E 84, Less than 25.
  6. Smoke Developed: ASTM E 84, Less than 450.
  7. Tack-Free: Dry to the touch within 20 minutes.
  8. Pressure Build: AAMA 812, less than 0.1 psi.
  9. Leakage Rate: ASTM E 283, less than 0.01 cfm/ft.2 at 1.57 psf (75 Pa) and 6.24 psf (300 Pa) pressure.
  10. 10. Fire Blocking performance: ASTM E814, pass
- C. Air Barriers: Comply with requirements of Section 07 25 00 "Weather Barriers."

## **2.04 ACCESSORIES**

- A. Accessories: Provide accessories per insulating system manufacturer's recommendations, including the following:
1. Tape: Polyethylene self-adhering type for Kraft faced insulation and bright aluminum self-adhering type for foil faced insulation.
  2. Insulation Fasteners: Impale clip of galvanized steel; type recommended by insulation manufacturer for particular use intended.
  3. Mechanical Insulation Fasteners: FM approved, corrosion resistant, size required to suit application.
  4. Wire Mesh: Galvanized steel, hexagonal wire mesh.
  5. Spindle Fasteners: Corrosion-resistant wire spindles.
  6. Ventilation Baffles: Formed plastic, metal, or cardboard sized to fit full width of rafter spaces.

## **PART 3 - EXECUTION**

### **3.01 EXAMINATION**

- A. Examine substrates, flashing conditions, penetrations, adjoining construction and the conditions under which work is to be installed. Verify that surfaces are dry and free of oil, grease, dust, rust, or other contaminant.
- B. Report unacceptable conditions in writing. Do not proceed with the Work until unsatisfactory conditions have been corrected and surfaces are acceptable.
- C. Verify that fire stopping is in place before beginning to apply the air infiltration barrier with flexible seal technology.
- D. Verify the following conditions have been sealed with the air infiltration barrier before installing insulation and before closing in framing cavities:
  1. Gaps between window units and framing.
  2. Gaps between door heads, jambs, and sills and wall framing.
  3. Interface of foundation or slab and sill plate.
  4. Interface of band joists or rim joists and plates and subfloor.
  5. Duct shafts, utility penetrations, knee walls and flue shafts opening to exterior or unconditioned space.

- E. Verify the following work is complete before installing insulation and before closing in framing cavities:
  - 1. Air sealing is provided between the garage and conditioned spaces.
  - 2. Recessed light fixtures are air tight, IC rated, and sealed to gypsum board.
    - a. Exception: Light fixtures in locations with conditioned spaces on both sides do not need to be air tight and do not need to be sealed unless required by another Section in the Project Manual.

### **3.02 3.2. PREPARATION**

- A. Before beginning work, protect windows, plumbing fixtures, finish materials, and finish surfaces within work area by covering them with a plastic film. Secure edges of film to assure air infiltration barrier with flexible seal technology does not get behind the film.
- B. Sweep area to receive air infiltration barrier application to remove dust and other contaminants that will interfere with providing a thorough seal.
- C. Fill medium-sized gaps (gaps between 3/8 inch and 3 inches) between surfaces to be sealed with fiberglass insulation. Cover gaps greater than 3 inches with rigid, nonporous material such as gypsum board, extruded polystyrene insulation, sheathing, OSB, particle board, agrifiber particle board, or plywood secured to framing and apply sealant at the perimeter.
- D. To protect and prevent materials from sticking to eyes and skin when applying foam sealant materials wear, goggles or a face shield, a long sleeved shirt, chemical gloves and, if the installation site is dusty, a dust mask.
- E. If using products other than EnergyComplete® Air Infiltration Barrier with Flexible Seal Technology that may contain isocyanates, comply fully with OSHA regulations regarding protective clothing, breathing apparatus, ventilation, and restricting access to areas of application.

### **3.03 INSTALLATION OF FOAM SEALANT**

- A. Foam sealant in accordance with manufacturer's instruction, including compliance with instructions for safety, preparation, and application of products. Apply continuously and evenly to joints in the following conditions:
  - 1. At penetrations between conditioned and unconditioned spaces.
  - 2. At interface between the sheathing and stud where a sheathing seam is known to exist.
  - 3. At the interface between windows/doors and the framed opening.
  - 4. On the face of all top plates of exterior walls.
  - 5. On the face of all top plates of interior walls adjacent to the unconditioned attic space.
  - 6. At interface between the sill plate and foundation.
  - 7. At interface between the bottom plate and the sheathing.
  - 8. At interface between the top plate and the sheathing.
  - 9. At interface between the bottom plate and the subfloor or slab for first floor of slab-on-grade construction.
  - 10. At any horizontal, mid-cavity sheathing seams.
  - 11. At garage-to-house common wall.
  - 12. At wall behind fireplace (block and seal).
  - 13. At joist bays connecting exterior to conditioned space, such as at garage, porch, or overhang (block and seal).
  - 14. At attic knee-walls (block and seal).
  - 15. At insulated floor of room above unconditioned space.
  - 16. At interface between the band joist and the plate below it.
  - 17. At interface between the band joist and the subfloor above it.
  - 18. At joist bays beneath cantilevered floors, such as for bay windows.
- B. Sealant is recognized in ICC-ES report ESR-3110 as an alternative to the methods prescribed by the code for maintaining the integrity of penetrations of fireblocking when used to fill cracks

and voids in construction and the annular space created by the penetration of wood fireblocking by pipes and conduits.

- C. Seal those gaps and penetrations filled with loose fill insulation during preparation and thoroughly cover them with foam sealant.
- D. Do not install foam sealant within 3 inches of a heat source with exception of recessed light fixtures, which may be sealed at the interface with the drywall.

### **3.04 INSTALLATION OF INSULATION, GENERAL**

- A. Install insulation system according to manufacturer's instructions, including compliance with instructions for safety, preparation, and application of products.
- B. Comply with local code requirements, and 2009 IECC requirements indicated on Table 402.4.2 Air Barrier and Insulation Inspection Component Criteria.
- C. Do not install insulation on top of or within 3 inches of recessed light fixtures unless the fixtures are approved for such use.
- D. Install exterior thermal envelope insulation for framed walls in substantial contact and in continuous alignment with building envelope vapor retarder or air barrier.
- E. Install vapor retarder air barrier in dropped ceilings and soffits in substantial alignment with insulation.
- F. Install insulation at band joists or rim joists.
- G. In crawl spaces and where the underside of floors are exposed to unconditioned space, insulation should fill the cavity or be installed in contact with the underside of the decking. If vapor retarder is required by local code, a Kraft vapor retarder must be in contact with a 15 minute thermal barrier. Placement of vapor retarder to be determined by local jurisdiction.
- H. Within exterior wall framing, install insulation between pipes and backside of sheathing. Cut insulation material as required to fit around wiring and plumbing.
- I. Where showers and bath tubs are located on exterior walls, install insulation and vapor retarder air barrier between units and exterior.

### **3.05 INSTALLATION OF BATT INSULATION**

- A. Install batt insulation in accordance with ASTM C 1320.
- B. If eave ventilation baffles are required, install ventilation baffles at eaves to hold insulation down from roof sheathing and provide positive ventilation from eave to attic space.
- C. Install in exterior walls, roof and ceiling spaces without gaps or voids. Fluff insulation to full thickness for specified R-value before installation. Do not compress insulation.
- D. Trim insulation neatly to fit spaces. Insulate miscellaneous gaps and voids.
- E. Fit insulation tight in spaces and tight to exterior side of mechanical and electrical services within the plane of insulation.
- F. For unfaced batt insulation, install with friction fit or retain in place with manufacturer's recommended fasteners or mesh.
- G. For batt insulation with factory-applied facing, install with vapor retarder membrane facing warm side of building spaces. Lap ends and side flanges of membrane over or between framing members. Tape seal butt ends, lapped flanges, and tears or cuts in membrane. Secure insulation in place using one of the following methods:
  - 1. Friction fit.
  - 2. Staple or nail facing flanges in place as needed.
  - 3. Tape in place.
  - 4. Retain in place with spindle fasteners.
  - 5. Retain in place with wire mesh secured to framing members.



**3.06 CLEANING**

- A. Remove protective plastic film coverings from adjacent materials.
- B. Clean unintended sealant materials, equipment, and fixtures.
- C. Remove damaged materials, equipment, and fixtures if sealant cannot be cleaned without blemish and install new materials, equipment, and fixtures identical to item before damage occurred.
- D. Remove waste materials and recycle empty containers and packaging.

**END OF SECTION 07 2116**



**SECTION 07 2500  
WEATHER BARRIERS**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Air Barriers: Materials that form a system to stop passage of air through exterior walls, joints between exterior walls and roof, and joints around frames of openings in exterior walls.

**1.02 RELATED REQUIREMENTS**

- A. Section 07 2100 - Thermal Insulation: Vapor retarder installed in conjunction with batt insulation.

**1.03 REFERENCE STANDARDS**

- A. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials; 2018.
- B. ASTM E96/E96M - Standard Test Methods for Water Vapor Transmission of Materials; 2016.
- C. ASTM E2178 - Standard Test Method for Air Permeance of Building Materials; 2013.

**1.04 SUBMITTALS**

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Provide data on material characteristics and performance criteria.
- C. Manufacturer's Installation Instructions: Indicate preparation and installation methods.

**PART 2 PRODUCTS**

**2.01 WEATHER BARRIER ASSEMBLIES**

- A. Air Barrier:
  - 1. On outside surface of sheathing of exterior walls use air barrier sheet, mechanically fastened type.

**2.02 AIR BARRIER MATERIALS (WATER VAPOR PERMEABLE AND WATER-RESISTIVE)**

- A. Air Barrier Sheet, Mechanically Fastened:
  - 1. Air Permeance: 0.004 cubic feet per minute per square foot (0.02 L/s/sq m), maximum, when tested in accordance with ASTM E2178.
  - 2. Water Vapor Permeance: 5 perms (286 ng/(Pa s sq m)), minimum, when tested in accordance with ASTM E96/E96M Procedure A (desiccant procedure).
  - 3. Ultraviolet (UV) and Weathering Resistance: Approved in writing by manufacturer for up to 180 days of weather exposure.
  - 4. Surface Burning Characteristics: Flame spread index of 25 or less, and smoke developed index of 50 or less, when tested in accordance with ASTM E84.
  - 5. Seam and Perimeter Tape: Polyethylene self adhering type, mesh reinforced, 2 inches (50 mm) wide, compatible with sheet material; unless otherwise specified.
  - 6. Manufacturers:
    - a. DuPont Building Innovations; Tyvek Commercial Wrap D with Tyvek Fluid Applied Flashing - Brush Formulation, Tyvek Fluid Applied Flashing and Joint Compound, FlexWrap NF, StraightFlash, StraightFlash VF, Tyvek Wrap Caps, and Tyvek Tape: [www.dupont.com/#sle](http://www.dupont.com/#sle).
    - b. Substitutions: See Section 01 6000 - Product Requirements.

**2.03 ACCESSORIES**

- A. Sealants, Tapes, and Accessories for Sealing Weather Barrier and Sealing Weather Barrier to Adjacent Substrates: As specified or as recommended by weather barrier manufacturer.

### **PART 3 EXECUTION**

#### **3.01 EXAMINATION**

- A. Verify that surfaces and conditions are ready to accept the work of this section.

#### **3.02 PREPARATION**

- A. Remove projections, protruding fasteners, and loose or foreign matter that might interfere with proper installation.

#### **3.03 INSTALLATION**

- A. Install materials in accordance with manufacturer's instructions.
- B. Air Barriers: Install continuous air tight barrier over surfaces indicated, with sealed seams and with sealed joints to adjacent surfaces.
- C. Mechanically Fastened Sheets - On Exterior:
  - 1. Install sheets shingle-fashion to shed water, with seams generally horizontal.
  - 2. Overlap seams as recommended by manufacturer but at least 6 inches.
  - 3. Overlap at outside and inside corners as recommended by manufacturer but at least 12 inches (305 mm).
  - 4. For applications specified to be air tight, seal seams, laps, penetrations, tears, and cuts with self-adhesive tape; use only large-headed, gasketed fasteners recommended by the manufacturer.
  - 5. Install air barrier and vapor retarder UNDER jamb flashings.
  - 6. Install head flashings under weather barrier.
  - 7. At openings to be filled with frames having nailing flanges, wrap excess sheet into opening; at head, seal sheet over flange and flashing.
- D. Openings and Penetrations in Exterior Weather Barriers:
  - 1. Install flashing over sills, covering entire sill frame member, extending at least 5 inches (125 mm) onto weather barrier and at least 6 inches (150 mm) up jambs; mechanically fasten stretched edges.
  - 2. At openings to be filled with frames having nailing flanges, seal head and jamb flanges using a continuous bead of sealant compressed by flange and cover flanges with sealing tape at least 4 inches (100 mm) wide; do not seal sill flange.
  - 3. At openings to be filled with non-flanged frames, seal weather barrier to each side of opening framing, using flashing at least 9 inches (230 mm) wide, covering entire depth of framing.
  - 4. At head of openings, install flashing under weather barrier extending at least 2 inches (50 mm) beyond face of jambs; seal weather barrier to flashing.
  - 5. At interior face of openings, seal gap between window/door frame and rough framing, using joint sealant over backer rod.
  - 6. Service and Other Penetrations: Form flashing around penetrating item and seal to weather barrier surface.

#### **3.04 PROTECTION**

- A. Do not leave materials exposed to weather longer than recommended by manufacturer.

**END OF SECTION 07 2500**

**SECTION 07 9200  
JOINT SEALANTS**

**PART 1 GENERAL**

**1.01 RELATED REQUIREMENTS**

- A. Section 01 6116 - Volatile Organic Compound (VOC) Content Restrictions: Additional requirements for sealants and primers.
- B. Section 07 2500 - Weather Barriers: Sealants required in conjunction with air barriers and vapor retarders.

**1.02 REFERENCE STANDARDS**

- A. ASTM C920 - Standard Specification for Elastomeric Joint Sealants; 2018.
- B. ASTM C1193 - Standard Guide for Use of Joint Sealants; 2016.
- C. ASTM C1248 - Standard Test Method for Staining of Porous Substrate by Joint Sealants; 2008 (Reapproved 2012).
- D. ASTM C1330 - Standard Specification for Cylindrical Sealant Backing for Use with Cold Liquid-Applied Sealants; 2002 (Reapproved 2013).

**1.03 SUBMITTALS**

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Product Data for Sealants: Submit manufacturer's technical data sheets for each product to be used, that includes the following.
  - 1. Physical characteristics, including movement capability, VOC content, hardness, cure time, and color availability.
  - 2. List of backing materials approved for use with the specific product.
  - 3. Substrates that product is known to satisfactorily adhere to and with which it is compatible.
  - 4. Substrates the product should not be used on.
- C. Color Cards for Selection: Where sealant color is not specified, submit manufacturer's color cards showing standard colors available for selection.

**1.04 WARRANTY**

- A. See Section 01 7800 - Closeout Submittals, for additional warranty requirements.
- B. Correct defective work within a five year period after Date of Substantial Completion.
- C. Warranty: Include coverage for installed sealants and accessories that fail to achieve watertight seal, exhibit loss of adhesion or cohesion, or do not cure.

**PART 2 PRODUCTS**

**2.01 JOINT SEALANT APPLICATIONS**

- A. Scope:
  - 1. Exterior Joints: Seal open joints, whether or not the joint is indicated on drawings, unless specifically indicated not to be sealed. Exterior joints to be sealed include, but are not limited to, the following items.
    - a. Wall expansion and control joints.
    - b. Joints between door, window, and other frames and adjacent construction.
    - c. Joints between different exposed materials.
    - d. Openings below ledge angles in masonry.
    - e. Other joints indicated below.
  - 2. Interior Joints: Do not seal interior joints unless specifically indicated to be sealed. Interior joints to be sealed include, but are not limited to, the following items.
    - a. Joints between door, window, and other frames and adjacent construction.
    - b. Other joints indicated below.
  - 3. Do not seal the following types of joints.

- a. Intentional weepholes in masonry.
  - b. Joints indicated to be treated with manufactured expansion joint cover or some other type of sealing device.
  - c. Joints where sealant is specified to be provided by manufacturer of product to be sealed.
  - d. Joints where installation of sealant is specified in another section.
  - e. Joints between suspended panel ceilings/grid and walls.
- B. Exterior Joints: Use non-sag non-staining silicone sealant, unless otherwise indicated.
- C. Interior Joints: Use non-sag polyurethane sealant, unless otherwise indicated.

## **2.02 JOINT SEALANTS - GENERAL**

- A. Sealants and Primers: Provide products with levels of volatile organic compound (VOC) content as indicated in Section 01 6116.

## **2.03 NONSAG JOINT SEALANTS**

- A. Non-Staining Silicone Sealant: ASTM C920, Grade NS, Uses M and A; not expected to withstand continuous water immersion or traffic.
- 1. Non-Staining To Porous Stone: Non-staining to light-colored natural stone when tested in accordance with ASTM C1248.
  - 2. Dirt Pick-Up: Reduced dirt pick-up compared to other silicone sealants.
- B. Polyurethane Sealant: ASTM C920, Grade NS, Uses M and A; single or multi-component; not expected to withstand continuous water immersion or traffic.
- 1. Movement Capability: Plus and minus 25 percent, minimum.

## **2.04 ACCESSORIES**

- A. Backer Rod: Cylindrical cellular foam rod with surface that sealant will not adhere to, compatible with specific sealant used, and recommended by backing and sealant manufacturers for specific application.
- 1. Type for Joints Not Subject to Pedestrian or Vehicular Traffic: ASTM C1330; Type O - Open Cell Polyurethane.
  - 2. Type for Joints Subject to Pedestrian or Vehicular Traffic: ASTM C1330; Type B - Bi-Cellular Polyethylene.
  - 3. Open Cell: 40 to 50 percent larger in diameter than joint width.
  - 4. Closed Cell and Bi-Cellular: 25 to 33 percent larger in diameter than joint width.
- B. Backing Tape: Self-adhesive polyethylene tape with surface that sealant will not adhere to and recommended by tape and sealant manufacturers for specific application.

## **PART 3 EXECUTION**

### **3.01 EXAMINATION**

- A. Verify that joints are ready to receive work.
- B. Verify that backing materials are compatible with sealants.
- C. Verify that backer rods are of the correct size.

### **3.02 PREPARATION**

- A. Remove loose materials and foreign matter that could impair adhesion of sealant.
- B. Clean joints, and prime as necessary, in accordance with manufacturer's instructions.
- C. Perform preparation in accordance with manufacturer's instructions and ASTM C1193.
- D. Mask elements and surfaces adjacent to joints from damage and disfigurement due to sealant work; be aware that sealant drips and smears may not be completely removable.

### **3.03 INSTALLATION**

- A. Perform work in accordance with sealant manufacturer's requirements for preparation of surfaces and material installation instructions.

- B. Perform installation in accordance with ASTM C1193.
- C. Install bond breaker backing tape where backer rod cannot be used.
- D. Install sealant free of air pockets, foreign embedded matter, ridges, and sags, and without getting sealant on adjacent surfaces.
- E. Do not install sealant when ambient temperature is outside manufacturer's recommended temperature range, or will be outside that range during the entire curing period, unless manufacturer's approval is obtained and instructions are followed.
- F. Nonsag Sealants: Tool surface concave, unless otherwise indicated; remove masking tape immediately after tooling sealant surface.

**END OF SECTION 07 9200**





**SECTION 08 1113**  
**HOLLOW METAL DOORS AND FRAMES**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Non-fire-rated hollow metal doors and frames.
- B. Thermally insulated hollow metal doors with frames.

**1.02 RELATED REQUIREMENTS**

- A. Section 08 7100 - Door Hardware.

**1.03 REFERENCE STANDARDS**

- A. ADA Standards - Americans with Disabilities Act (ADA) Standards for Accessible Design; 2010.
- B. ANSI/SDI A250.4 - Test Procedure and Acceptance Criteria for Physical Endurance for Steel Doors, Frames and Frame Anchors; 2011.
- C. ANSI/SDI A250.8 - Specifications for Standard Steel Doors and Frames (SDI-100); 2014.
- D. ANSI/SDI A250.10 - Test Procedure and Acceptance Criteria for Prime Painted Steel Surfaces for Steel Doors and Frames; 2011.
- E. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process; 2017.
- F. ASTM A1008/A1008M - Standard Specification for Steel, Sheet, Cold-Rolled, Carbon, Structural, High-Strength Low-Alloy, High-Strength Low-Alloy with Improved Formability, Solution Hardened, and Bake Hardenable; 2016.
- G. ASTM A1011/A1011M - Standard Specification for Steel, Sheet and Strip, Hot-Rolled, Carbon, Structural, High-Strength Low-Alloy, High-Strength Low-Alloy with Improved Formability, and Ultra-High Strength; 2017.
- H. BHMA A156.115 - American National Standard for Hardware Preparation in Steel Doors and Steel Frames; 2016.
- I. ICC A117.1 - Accessible and Usable Buildings and Facilities; 2017.
- J. NAAMM HMMA 830 - Hardware Selection for Hollow Metal Doors and Frames; 2002.
- K. NAAMM HMMA 831 - Hardware Locations for Hollow Metal Doors and Frames; 2011.

**1.04 SUBMITTALS**

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Materials and details of design and construction, hardware locations, reinforcement type and locations, anchorage and fastening methods, and finishes; and one copy of referenced standards/guidelines.
- C. Shop Drawings: Details of each opening, showing elevations, glazing, frame profiles, and any indicated finish requirements.
- D. Manufacturer's Qualification Statement.

**1.05 QUALITY ASSURANCE**

- A. Manufacturer Qualifications: Provide hollow metal doors and frames from SDI Certified manufacturer: [www.steeldoor.org/sdicertified.php](http://www.steeldoor.org/sdicertified.php).
- B. Maintain at project site copies of reference standards relating to installation of products specified.

**PART 2 PRODUCTS**

**2.01 DESIGN CRITERIA**

- A. Requirements for Hollow Metal Doors and Frames:

1. Steel used for fabrication of doors and frames shall comply with one or more of the following requirements; Galvannealed steel conforming to ASTM A653/A653M, cold-rolled steel conforming to ASTM A1008/A1008M, or hot-rolled pickled and oiled (HRPO) steel conforming to ASTM A1011/A1011M, Commercial Steel (CS) Type B for each.
  2. Accessibility: Comply with ICC A117.1 and ADA Standards.
  3. Typical Door Face Sheets: Embossed.
  4. Hardware Preparations, Selections and Locations: Comply with NAAMM HMMA 830 and NAAMM HMMA 831 or BHMA A156.115 and ANSI/SDI A250.8 (SDI-100) in accordance with specified requirements.
- B. Combined Requirements: If a particular door and frame unit is indicated to comply with more than one type of requirement, comply with the specified requirements for each type; for instance, an exterior door that is also indicated as being sound-rated must comply with the requirements specified for exterior doors and for sound-rated doors; where two requirements conflict, comply with the most stringent.

## **2.02 HOLLOW METAL DOORS**

- A. Exterior Doors: Thermally insulated.
1. Based on SDI Standards: ANSI/SDI A250.8 (SDI-100).
    - a. Level 1 - Standard-duty.
    - b. Physical Performance Level C, 250,000 cycles; in accordance with ANSI/SDI A250.4.
    - c. Model 1 - Full Flush.
    - d. Door Face Metal Thickness: 20 gage, 0.032 inch (0.8 mm), minimum.
  2. Door Core Material: Manufacturers standard core material/construction and in compliance with requirements.
  3. Door Thickness: 1-3/4 inch (44.5 mm), nominal.

## **2.03 HOLLOW METAL FRAMES**

- A. Comply with standards and/or custom guidelines as indicated for corresponding door in accordance with applicable door frame requirements.
- B. Exterior Door Frames: Knock-down type.
1. Galvanizing: Components hot-dipped zinc-iron alloy-coated (galvannealed) in accordance with ASTM A653/A653M, with A40/ZF120 coating.
  2. Frame Metal Thickness: 16 gage, 0.053 inch (1.3 mm), minimum.
  3. Frame Finish: Factory primed and field finished.
  4. Weatherstripping: Separate, see Section 08 7100.

## **2.04 FINISHES**

- A. Primer: Rust-inhibiting, complying with ANSI/SDI A250.10, door manufacturer's standard.

## **2.05 ACCESSORIES**

- A. Silencers: Resilient rubber, fitted into drilled hole; provide three on strike side of single door, three on center mullion of pairs, and two on head of pairs without center mullions.
- B. Temporary Frame Spreaders: Provide for factory- or shop-assembled frames.

## **PART 3 EXECUTION**

### **3.01 EXAMINATION**

- A. Verify existing conditions before starting work.
- B. Verify that opening sizes and tolerances are acceptable.
- C. Verify that finished walls are in plane to ensure proper door alignment.

### **3.02 INSTALLATION**

- A. Install doors and frames in accordance with manufacturer's instructions and related requirements of specified door and frame standards or custom guidelines indicated.
- B. Coordinate frame anchor placement with wall construction.

- C. Install door hardware as specified in Section 08 7100.

**3.03 ADJUSTING**

- A. Adjust for smooth and balanced door movement.

**END OF SECTION 08 1113**



**SECTION 08 1407**  
**COMMERCIAL WOOD DOORS**

**PART 1 GENERAL**

**1.01 SUMMARY**

- A. Section Includes:
  - 1. Interior molded face wood doors.
  - 2. Matching wood frames.
- B. Related Requirements:
  - 1. Section [08 7100]: Door hardware.

**1.02 PREINSTALLATION MEETINGS**

- A. Conduct pre-installation meeting at Project site.
- B. Discussion Topics:
  - 1. Delivery, storage, and handling.
  - 2. Protection of installed doors.

**1.03 ACTION SUBMITTALS**

- A. Product Data: Each type of door and finish.
  - 1. Core and edge construction.
  - 2. Shop Drawings and Schedule:
  - 3. Use same unit designations used in Contract Documents.
  - 4. Hardware preparation.
- B. Samples for Selection:
  - 1. Available standard casing profiles for wood door frames.

**1.04 CLOSEOUT SUBMITTALS**

- A. Maintenance data.
- B. Manufacturer warranties transferrable to Owner.

**1.05 DELIVERY, STORAGE, AND HANDLING**

- A. Store doors inside building in clean, dry location.
- B. Mark each door on top rail with opening number used on Shop Drawings.

**1.06 FIELD CONDITIONS**

- A. Environmental Limitations: Do not deliver or install doors until spaces are enclosed and weather tight, wet work in spaces is complete and dry, and HVAC system is operating and maintaining temperature between 60 and 90 deg F (16 and 32 deg C) and relative humidity at occupancy levels during remainder of construction period.

**1.07 MANUFACTURER WARRANTIES**

- A. Standard manufacturer warranties.
  - 1. Failures include, but are not limited to, the following:
    - a. Warping (bow, cup, or twist) more than 1/4 inch (6 mm) in 42-by-84-inch (1065-by-2130-mm) section.
    - b. Telegraphing of core construction in face veneers exceeding 0.01 inch in 3-inch (0.25 mm in 76-mm) span.
  - 2. Solid Core Doors: Limited lifetime warranty.
  - 3. Hollow Core Doors: Limited one year.

**PART 2 PRODUCTS**

**2.01 MANUFACTURERS**

- A. Basis of Design: Products of Cendura™ Series | Mohawk by Masonite Architectural are specified to indicate requirements for quality and appearance.

1. Website: [Masonite.com/architectural/products/cendura-series](http://Masonite.com/architectural/products/cendura-series)
2. Phone: 877.332.4484

B. Source Control: Supply all wood doors from a single manufacturer.

## 2.02 MANUFACTURING STANDARD

- A. Interior Wood Doors: Window & Door Manufacturers Association publication ANSI/WDMA I.S. 1A "Industry Standard for Interior Architectural Wood Flush Doors".
1. Temperature-Rise Limit: [Where indicated] [At vertical exit enclosures and exit passageways], provide doors that have a maximum transmitted temperature end point of not more than 250 deg F (121 deg C) above ambient after 30 minutes of standard fire-test exposure.
  2. Blocking: Provide composite blocking approved for use in doors of fire-protection ratings indicated as needed to maintain WDMA performance level and eliminate through-bolting hardware.

## 2.03 INTERIOR MOLDED PANEL AND WEST END WOOD DOORS

- A. Basis of Design: Cendura™ Series | Mohawk by Masonite Architectural.
- B. Molded Panel Doors and West End :
1. WDMA Quality Standard: Standard Construction.
  2. WDMA Performance Level: Heavy Duty. Note: This construction meets Extra Heavy Duty face screw pull values when surface mounted hardware is attached with through-bolts Heavy Duty.
  3. Core Construction: [Wood-based particleboard] with [bonded] faces.
  4. Style: [Standard style selected by Architect].
  5. Faces: Molded medium density fiberboard.
  6. Molded Panel Design: [2-panel].
  7. Vertical Edges: Finger-jointed softwood.
  8. Thickness: [1-3/4 inch].
  9. Finish: Factory-applied [primer for field painting].

## 2.04 PAINT FINISH WOOD DOOR FRAMES

- A. Material: Paint grade hardwood.
- B. Frame Profile: [Standard double rabbet.]
- C. Trim: Paint grade [medium density fiberboard].
- D. Trim Stile: [Contemporary Casing.]
- E. Finish: Factory-applied [primer for field painting]

## 2.05 FABRICATION

- A. Factory Fitting: Fit to frame openings with clearances specified in WDMA I.S. 1A.
1. Undercut: Maximum 3/8 inch (10 mm) above thresholds.
  2. Fire-Rated Doors: Comply with NFPA 80.
- B. Factory Machining: Machine doors for hardware that is not surface applied.
1. Verify dimensions for hardware mortises in metal frames before machining.
- C. Openings:
1. Cut and trim openings and install glazing at factory.
  2. Cut openings and install louvers at factory.
- D. Contractor Option: Doors supplied with wood frames may have hardware installed at factory.
- E. Door Frames:
1. Supply frames with temporary spreader bars at base.

## 2.06 FINISHES

- A. Finish Grade: Match grade of door.

- B. Factory-Primed: Primer suitable for finish paint.

### **PART 3 EXECUTION**

#### **3.01 EXAMINATION**

- A. Verify that door frames are plumb, square, and accurate size.
- B. Inspect each door before installation for damage and defects per WDMA Section F-6.

#### **3.02 INSTALLATION**

- A. Hardware installation is specified in Section 08 7100 - Door Hardware.
- B. Reference Standards:
  - 1. Wood Doors: [WDMA I.S. 1A] [and] [WDMA I.S. 6A].
- C. Align doors with uniform vertical and top edge clearance.

#### **3.03 REPAIR**

- A. Repair of damage or defects is subject to Architect's acceptance, including removal of soiling.
- B. Provide new replacement doors for doors that cannot be satisfactorily repaired.

#### **3.04 PROTECTING AND CLEANING**

- A. Protect installed doors from damage and soiling.
- B. Clean doors shortly before inspection for Substantial Completion.

**END OF SECTION 08 1407**





**SECTION 08 4313**  
**ALUMINUM-FRAMED STOREFRONTS**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Aluminum-framed storefront, with vision glass.
- B. Aluminum doors and frames.
- C. Weatherstripping.

**1.02 SUBMITTALS**

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Provide component dimensions, describe components within assembly, anchorage and fasteners, glass and infill, door hardware, and internal drainage details.
- C. Shop Drawings: Indicate system dimensions, framed opening requirements and tolerances, affected related work, expansion and contraction joint location and details, and field welding required.
- D. Samples: Submit two samples 8 by 8 inches (\_\_\_\_by\_\_\_\_ mm) in size illustrating finished aluminum surface, glass, infill panels, glazing materials.
- E. Hardware Schedule: Complete itemization of each item of hardware to be provided for each door, cross-referenced to door identification numbers in Contract Documents.
- F. Warranty: Submit manufacturer warranty and ensure forms have been completed in Owner's name and registered with manufacturer.

**1.03 QUALITY ASSURANCE**

- A. Designer Qualifications: Design structural support framing components under direct supervision of a Professional Structural Engineer experienced in design of this Work and licensed in Arkansas.
- B. Manufacturer Qualifications: Company specializing in performing work of type specified and with at least three years of documented experience.

**1.04 WARRANTY**

- A. See Section 01 7800 - Closeout Submittals, for additional warranty requirements.
- B. Correct defective Work within a five year period after Date of Substantial Completion.
- C. Provide five year manufacturer warranty against failure of glass seal on insulating glass units, including interpane dusting or misting. Include provision for replacement of failed units.
- D. Provide five year manufacturer warranty against excessive degradation of exterior finish. Include provision for replacement of units with excessive fading, chalking, or flaking.

**PART 2 PRODUCTS**

**2.01 BASIS OF DESIGN -- FRAMING FOR MONOLITHIC GLAZING**

- A. Center-Set Style:
  - 1. Vertical Mullion Dimensions: 1-3/4 inches wide by 4 inches deep (44 mm wide by 102 mm deep).

**2.02 BASIS OF DESIGN -- SWINGING DOORS**

- A. Wide Stile, Monolithic Glazing:
  - 1. Basis of Design: Kawneer North America; [www.kawneer.com/#sle](http://www.kawneer.com/#sle).
  - 2. Thickness: 1-3/4 inches (43 mm).
- B. Other Manufacturers: Provide either the product identified as "Basis of Design" or an equivalent product of one of the manufacturers listed below:
  - 1. EFCO, a Pella Company: [www.efcocorp.com/#sle](http://www.efcocorp.com/#sle).

2. Trulite Glass & Aluminum Solutions, LLC: [www.trulite.com/#sle](http://www.trulite.com/#sle).
  3. YKK AP America Inc: [www.ykkap.com/#sle](http://www.ykkap.com/#sle).
- C. Substitutions: See Section 01 6000 - Product Requirements.
1. For any product not identified as "Basis of Design", submit information as specified for substitutions.

### 2.03 STOREFRONT

- A. Aluminum-Framed Storefront: Factory fabricated, factory finished aluminum framing members with infill, and related flashings, anchorage and attachment devices.
1. Glazing Rabbet: For 1/4 inch (6 mm) monolithic glazing.
  2. Finish: Class II color anodized.
    - a. Factory finish all surfaces that will be exposed in completed assemblies.
  3. Finish Color: Dark bronze.
  4. Fabrication: Joints and corners flush, hairline, and weatherproof, accurately fitted and secured; prepared to receive anchors and hardware; fasteners and attachments concealed from view; reinforced as required for imposed loads.
  5. Construction: Eliminate noises caused by wind and thermal movement, prevent vibration harmonics, and prevent "stack effect" in internal spaces.
  6. System Internal Drainage: Drain to the exterior by means of a weep drainage network any water entering joints, condensation occurring in glazing channel, and migrating moisture occurring within system.
  7. Expansion/Contraction: Provide for expansion and contraction within system components caused by cycling temperature range of 170 degrees F (95 degrees C) over a 12 hour period without causing detrimental effect to system components, anchorages, and other building elements.
  8. Movement: Allow for movement between storefront and adjacent construction, without damage to components or deterioration of seals.
  9. Perimeter Clearance: Minimize space between framing members and adjacent construction while allowing expected movement.
- B. Performance Requirements:
1. Wind Loads: Design and size components to withstand the specified load requirements without damage or permanent set, when tested in accordance with ASTM E330/E330M, using loads 1.5 times the design wind loads and 10 second duration of maximum load.
    - a. Design Wind Loads: Comply with requirements of ASCE 7.
    - b. Member Deflection: Limit member deflection to flexure limit of glass in any direction, with full recovery of glazing materials.
  2. Water Penetration Resistance on Manufactured Assembly: No uncontrolled water on interior face, when tested in accordance with ASTM E331 at pressure differential of 8 psf (390 Pa).
  3. Air Leakage Laboratory Test: Maximum of 0.06 cu ft/min sq ft (0.3 L/sec sq m) of wall area, when tested in accordance with ASTM E283 at 6.27 psf (300 Pa) pressure differential across assembly.

### 2.04 COMPONENTS

- A. Aluminum Framing Members: Tubular aluminum sections, drainage holes and internal weep drainage system.
1. Framing members for interior applications need not be thermally broken.
  2. Glazing Stops: Flush.
  3. Cross-Section: 2 by 4 inch (\_\_\_ by \_\_\_ mm) nominal dimension.
- B. Swing Doors: Glazed aluminum.
1. Thickness: 1-3/4 inches (43 mm).
  2. Top Rail: 5 inches (\_\_\_ mm) wide.
  3. Vertical Stiles: 5 inches (\_\_\_ mm) wide.
  4. Bottom Rail: 10 inches (254 mm) wide.

5. Glazing Stops: Beveled.
6. Finish: Same as storefront.

## **2.05 MATERIALS**

- A. Extruded Aluminum: ASTM B221 (ASTM B221M).
- B. Fasteners: Stainless steel.
- C. Glazing Gaskets: Type to suit application to achieve weather, moisture, and air infiltration requirements.

## **2.06 FINISHES**

- A. Class II Color Anodized Finish: AAMA 611 AA-M12C22A32 Integrally colored anodic coating not less than 0.4 mils (0.01 mm) thick.
- B. Color: Dark bronze.

## **2.07 HARDWARE**

- A. For each door, include weatherstripping, sill sweep strip, and threshold.
- B. Other Door Hardware: As specified in Section 08 7100.
- C. Weatherstripping: Wool pile, continuous and replaceable; provide on all doors.
- D. Sill Sweep Strips: Resilient seal type, retracting, of neoprene; provide on all doors.
- E. Threshold: Extruded aluminum, one piece per door opening, ribbed surface; provide on all doors.

## **PART 3 EXECUTION**

### **3.01 EXAMINATION**

- A. Verify dimensions, tolerances, and method of attachment with other work.
- B. Verify that wall openings and adjoining air and vapor seal materials are ready to receive work of this section.

### **3.02 INSTALLATION**

- A. Install wall system in accordance with manufacturer's instructions.
- B. Attach to structure to permit sufficient adjustment to accommodate construction tolerances and other irregularities.
- C. Provide alignment attachments and shims to permanently fasten system to building structure.
- D. Align assembly plumb and level, free of warp or twist. Maintain assembly dimensional tolerances, aligning with adjacent work.
- E. Provide thermal isolation where components penetrate or disrupt building insulation.
- F. Install sill flashings. Turn up ends and edges; seal to adjacent work to form water tight dam.
- G. Where fasteners penetrate sill flashings, make watertight by seating and sealing fastener heads to sill flashing.
- H. Pack fibrous insulation in shim spaces at perimeter of assembly to maintain continuity of thermal barrier.
- I. Set thresholds in bed of sealant and secure.
- J. Touch-up minor damage to factory applied finish; replace components that cannot be satisfactorily repaired.

### **3.03 TOLERANCES**

- A. Maximum Variation from Plumb: 0.06 inch per 3 feet (1.5 mm per m) non-cumulative or 0.06 inch per 10 feet (1.5 mm per 3 m), whichever is less.
- B. Maximum Misalignment of Two Adjoining Members Abutting in Plane: 1/32 inch (0.8 mm).

**3.04 ADJUSTING**

- A. Adjust operating hardware and sash for smooth operation.

**END OF SECTION 08 4313**

**SECTION 08 5659**  
**SERVICE AND TELLER WINDOW UNITS**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Service and teller window units.

**1.02 REFERENCE STANDARDS**

- A. AAMA 611 - Voluntary Specification for Anodized Architectural Aluminum; 2014 (2015 Errata).
- B. ASTM B221 - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes; 2014.
- C. ASTM B221M - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes (Metric); 2013.

**1.03 ADMINISTRATIVE REQUIREMENTS**

- A. Coordinate work with adjacent materials specified in other sections and as indicated on drawings and approved shop drawings.

**1.04 SUBMITTALS**

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Submit manufacturer's product data for specified products indicating materials, operation, glazing, finishes, and installation instructions.
- C. Shop Drawings: Indicate configuration, sizes, rough-in, mounting, anchors and fasteners, and installation clearances.
- D. Samples for Selection of Finishes:
  - 1. Color Anodized Finishes: Submit two samples, 4 inch by 4 inch (100 mm by 100 mm) in size illustrating metal finishes for each finish specified.
- E. Manufacturer Qualification Statement.
- F. Installer Qualification Statement.
- G. Warranty: Submit manufacturer warranty and ensure that forms have been completed in Owner's name and registered with manufacturer.

**1.05 QUALITY ASSURANCE**

- A. Installer Qualifications: Company specializing in performing work of the type specified and with at least three years of documented experience.

**1.06 WARRANTY**

- A. See Section 01 7800 - Closeout Submittals, for additional warranty requirements.
- B. Provide manufacturer's warranty agreeing to repair or replace units and their components that fail in materials or workmanship within five years from Date of Substantial Completion.

**PART 2 PRODUCTS**

**2.01 MANUFACTURERS**

- A. Service and Teller Window Units:
  - 1. C.R. Laurence; [www.crlaurence.com](http://www.crlaurence.com).
  - 2. Substitutions: See Section 01 6000 - Product Requirements.

**2.02 SERVICE AND TELLER WINDOW UNITS**

- A. Location: Counter top mounted at interior transaction counter, as indicated on drawings.
- B. Type of Use: Walk-up.
- C. Window Type: Fixed.
  - 1. Mounting: Hardware mounted to counter top.

2. Window Size: As indicated on drawings.
  3. Size of Counter Space: Not included with transaction window.
  4. Material: Aluminum.
    - a. Finish: Color anodized, dark bronze.
  5. Sill: No sill, exposed finish bottom edge of glazing.
- D. Glazing: Single (monolithic), clear.
  1. Laminated safety glazing.
- E. Location: Built within exterior wall, as indicated on drawings.
- F. Type of Use: Walk-up.
- G. Window Type: Fixed.
  1. Mounting: Exterior: Set in aluminum storefront framing.
  2. Window Size: As indicated on drawings.
  3. Size of Counter Space: As indicated on drawings.
  4. Material: Aluminum.
    - a. Finish: Color anodized, dark bronze.
  5. Sill: As indicated on drawings.
- H. Glazing: Single (monolithic), clear.
  1. Laminated safety glazing.
- I. Communication: Draftproof portal at exterior window.
- J. Products:
  1. Interior: CR Laurence: CRL-PP55.
  2. Exterior: CR Laurence: No draft SpeakThru CRL-834DU and latching cover plate CRL-725DU.
  3. Substitutions: See Section 01 6000 - Product Requirements.

## **2.03 ASSEMBLY COMPONENTS**

- A. Windows: Factory-fabricated, finished, and glazed, with extruded aluminum frame and glazing stops; complete with hardware and anchors.
  1. Provide window units that are re-glazable from the secure side without dismantling the non-secure side of framing.
  2. Rigidly fit and secure joints and corners with internal reinforcement. Make joints and connections flush, hairline, and weatherproof. Fully weld corners.
  3. Apply factory finish to exposed surfaces.
  4. Wind Design: Design and size components to withstand dead loads and live loads caused by pressure and negative wind loads acting normal to plane of window as calculated in accordance with applicable code.

## **2.04 MATERIALS**

- A. Aluminum Extrusions: Minimum 1/8 inch (3.2 mm) thick frame and sash material complying with ASTM B221 and ASTM B221M.

## **2.05 FINISHES**

- A. Class II Color Anodized Finish: AAMA 611 AA-M12C22A34 Electrolytically deposited colored anodic coating not less than 0.4 mils (0.01 mm) thick.
- B. Color: Dark bronze.

## **2.06 ACCESSORIES**

- A. Speak-Through Portal: Heavy duty, non-electric, Bronze Aluminum unit.

## **PART 3 EXECUTION**

### **3.01 INSTALLATION**

- A. Install in accordance with manufacturer's instructions.

- B. Install units in correct orientation (inside/outside or secure/non-secure).
- C. Anchor units securely in manner so as to achieve performance specified.

**3.02 CLEANING**

- A. Remove protective material from factory finished surfaces.
- B. Clean exposed surfaces promptly after installation without damaging finishes.

**END OF SECTION 08 5659**





**SECTION 08 7100  
DOOR HARDWARE**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Hardware for wood and aluminum doors.
- B. Lock cylinders for doors that hardware is specified in other sections.

**1.02 RELATED REQUIREMENTS**

- A. Section 08 1416 - Flush Wood Doors.
- B. Section 08 4313 - Aluminum-Framed Storefronts: Door hardware, except as noted in section.

**1.03 PRICE AND PAYMENT PROCEDURES**

- A. Allowances: See Section 01 2100 - Allowances, for cash allowances affecting this section.

**1.04 REFERENCE STANDARDS**

- A. ADA Standards - Americans with Disabilities Act (ADA) Standards for Accessible Design; 2010.
- B. ICC A117.1 - Accessible and Usable Buildings and Facilities; 2017.
- C. ITS (DIR) - Directory of Listed Products; current edition.
- D. NFPA 80 - Standard for Fire Doors and Other Opening Protectives; 2016.
- E. NFPA 252 - Standard Methods of Fire Tests of Door Assemblies; 2018.
- F. UL (DIR) - Online Certifications Directory; Current Edition.
- G. UL 10C - Standard for Positive Pressure Fire Tests of Door Assemblies; Current Edition, Including All Revisions.

**1.05 ADMINISTRATIVE REQUIREMENTS**

- A. Coordinate the manufacture, fabrication, and installation of products that door hardware is installed on.
- B. Keying Requirements Meeting:
  - 1. Attendance Required:
    - a. Contractor.
    - b. Owner.
  - 2. Agenda:
    - a. Establish keying requirements.
  - 3. Incorporate "Keying Requirements Meeting" decisions into keying submittal upon review of door hardware keying system including, but not limited to, the following:
  - 4. Record minutes and distribute copies within two days after meeting to participants, with two copies to Architect, Owner, participants, and those affected by decisions made.
  - 5. Deliver established keying requirements to manufacturers.

**1.06 SUBMITTALS**

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Warranty: Submit manufacturer's warranty and ensure that forms have been completed in Owner's name and registered with manufacturer.

**1.07 QUALITY ASSURANCE**

- A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section with minimum three years of documented experience.

**1.08 WARRANTY**

- A. See Section 01 7800 - Closeout Submittals, for additional warranty requirements.

- B. Warranty against defects in material and workmanship for period indicated, from Date of Substantial Completion.
  - 1. Locksets and Cylinders: Three years, minimum.
  - 2. Other Hardware: Two years, minimum.

## **PART 2 PRODUCTS**

### **2.01 DESIGN AND PERFORMANCE CRITERIA**

- A. Provide specified door hardware as required to make doors fully functional, compliant with applicable codes, and secure to extent indicated.
- B. Provide individual items of single type, of same model, and by same manufacturer.
- C. Provide door hardware products that comply with the following requirements:
  - 1. Applicable provisions of federal, state, and local codes.
  - 2. Accessibility: ADA Standards and ICC A117.1.
  - 3. Fire-Rated Doors: NFPA 80, listed and labeled by qualified testing agency for fire protection ratings indicated, based on testing at positive pressure in accordance with NFPA 252 or UL 10C.
  - 4. Hardware on Fire-Rated Doors: Listed and classified by UL (DIR), ITS (DIR), or testing firm acceptable to authorities having jurisdiction as suitable for application indicated.
- D. Fasteners:
  - 1. Provide fasteners of proper type, size, quantity, and finish that comply with commercially recognized standards for proposed applications.
    - a. Aluminum fasteners are not permitted.
    - b. Provide phillips flat-head screws with heads finished to match door surface hardware unless otherwise indicated.
  - 2. Fire-Rated Applications: Comply with NFPA 80.
    - a. Provide wood or machine screws for hinges mortised to doors or frames, strike plates to frames, and closers to doors and frames.
    - b. Provide steel through bolts for attachment of surface mounted closers, hinges, or exit devices to door panels unless proper door blocking is provided.

## **PART 3 EXECUTION**

### **3.01 EXAMINATION**

- A. Verify that doors and frames are ready to receive this work; labeled, fire-rated doors and frames are properly installed, and dimensions are as indicated on shop drawings.

### **3.02 INSTALLATION**

- A. Install hardware in accordance with manufacturer's instructions and applicable codes.
- B. Install hardware on fire-rated doors and frames in accordance with applicable codes and NFPA 80.
- C. Use templates provided by hardware item manufacturer.
- D. Door Hardware Mounting Heights: Distance from finished floor to center line of hardware item. As indicated in following list, unless noted otherwise on drawings.
- E. Set exterior door thresholds with full-width bead of elastomeric sealant at each point of contact with floor providing a continuous weather seal; anchor thresholds with stainless steel countersunk screws.

### **3.03 ADJUSTING**

- A. Adjust work under provisions of Section 01 7000 - Execution and Closeout Requirements.
- B. Adjust hardware for smooth operation.
- C. Adjust gasketing for complete, continuous seal; replace if unable to make complete seal.

**END OF SECTION 08 7100**

**SECTION 09 2116**  
**GYPSUM BOARD ASSEMBLIES**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Gypsum wallboard.

**1.02 RELATED REQUIREMENTS**

- A. Section 06 1000 - Rough Carpentry: Building framing and sheathing.
- B. Section 06 1000 - Rough Carpentry: Wood blocking product and execution requirements.
- C. Section 07 2100 - Thermal Insulation: Acoustic insulation.
- D. Section 07 2500 - Weather Barriers: Water-resistive barrier over sheathing.

**1.03 REFERENCE STANDARDS**

- A. ASTM C665 - Standard Specification for Mineral-Fiber Blanket Thermal Insulation for Light Frame Construction and Manufactured Housing; 2017.
- B. ASTM C840 - Standard Specification for Application and Finishing of Gypsum Board; 2017a.
- C. ASTM C1002 - Standard Specification for Steel Self-Piercing Tapping Screws for Application of Gypsum Panel Products or Metal Plaster Bases to Wood Studs or Steel Studs; 2016.
- D. ASTM C1396/C1396M - Standard Specification for Gypsum Board; 2017.
- E. GA-216 - Application and Finishing of Gypsum Panel Products; 2016.

**1.04 SUBMITTALS**

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Provide data on gypsum board and accessories.

**PART 2 PRODUCTS**

**2.01 GYPSUM BOARD ASSEMBLIES**

- A. Provide completed assemblies complying with ASTM C840 and GA-216.

**2.02 BOARD MATERIALS**

- A. Manufacturers - Gypsum-Based Board:
  - 1. American Gypsum Company; \_\_\_\_: [www.americangypsum.com/#sle](http://www.americangypsum.com/#sle).
  - 2. CertainTeed Corporation; \_\_\_\_: [www.certainteed.com/#sle](http://www.certainteed.com/#sle).
  - 3. Georgia-Pacific Gypsum; \_\_\_\_: [www.gpgypsum.com/#sle](http://www.gpgypsum.com/#sle).
  - 4. National Gypsum Company; \_\_\_\_: [www.nationalgypsum.com/#sle](http://www.nationalgypsum.com/#sle).
  - 5. USG Corporation; \_\_\_\_: [www.usg.com/#sle](http://www.usg.com/#sle).
  - 6. Substitutions: See Section 01 6000 - Product Requirements.
- B. Gypsum Wallboard: Paper-faced gypsum panels as defined in ASTM C1396/C1396M; sizes to minimize joints in place; ends square cut.
  - 1. Application: Use for vertical surfaces and ceilings, unless otherwise indicated.
  - 2. Thickness:
    - a. Vertical Surfaces: 5/8 inch (16 mm).
    - b. Ceilings: 1/2 inch (13 mm).
- C. Ceiling Board: Special sag resistant gypsum ceiling board as defined in ASTM C1396/C1396M; sizes to minimize joints in place; ends square cut.
  - 1. Application: Ceilings, unless otherwise indicated.
  - 2. Thickness: 1/2 inch (13 mm).
  - 3. Edges: Tapered.

### **2.03 ACCESSORIES**

- A. Acoustic Insulation: ASTM C665; preformed glass fiber, friction fit type, unfaced. Thickness: 3 inch (\_\_\_\_\_ mm).
- B. Acoustic Sealant: Acrylic emulsion latex or water-based elastomeric sealant; do not use solvent-based non-curing butyl sealant.
- C. Textured Finish Materials: Latex-based compound; plain.
- D. Screws for Fastening of Gypsum Panel Products to Cold-Formed Steel Studs Less than 0.033 inch (0.84 mm) in Thickness and Wood Members: ASTM C1002; self-piercing tapping screws, corrosion resistant.

### **PART 3 EXECUTION**

#### **3.01 EXAMINATION**

- A. Verify that project conditions are appropriate for work of this section to commence.

#### **3.02 ACOUSTIC ACCESSORIES INSTALLATION**

- A. Acoustic Insulation: Place tightly within spaces, around cut openings, behind and around electrical and mechanical items within partitions, and tight to items passing through partitions.
- B. Acoustic Sealant: Install in accordance with manufacturer's instructions.

#### **3.03 BOARD INSTALLATION**

- A. Comply with ASTM C840, GA-216, and manufacturer's instructions. Install to minimize butt end joints, especially in highly visible locations.
- B. Single-Layer Non-Rated: Install gypsum board in most economical direction, with ends and edges occurring over firm bearing.
  - 1. Exception: Tapered edges to receive joint treatment at right angles to framing.

#### **3.04 INSTALLATION OF TRIM AND ACCESSORIES**

- A. Control Joints: Place control joints consistent with lines of building spaces and as directed.
  - 1. Not more than 30 feet (10 meters) apart on walls and ceilings over 50 feet (16 meters) long.
- B. Corner Beads: Install at external corners, using longest practical lengths.
- C. Edge Trim: Install at locations where gypsum board abuts dissimilar materials.

#### **3.05 JOINT TREATMENT**

- A. Finish gypsum board in accordance with levels defined in ASTM C840, as follows:
  - 1. Level 1: Fire rated wall areas above finished ceilings, whether or not accessible in the completed construction.
- B. Tape, fill, and sand exposed joints, edges, and corners to produce smooth surface ready to receive finishes.
  - 1. Feather coats of joint compound so that camber is maximum 1/32 inch (0.8 mm).

#### **3.06 TEXTURE FINISH**

- A. Texture Required: Match Adjacent.

#### **3.07 TOLERANCES**

- A. Maximum Variation of Finished Gypsum Board Surface from True Flatness: 1/8 inch in 10 feet (3 mm in 3 m) in any direction.

**END OF SECTION 09 2116**

**SECTION 09 6500  
RESILIENT FLOORING**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Resilient tile flooring.
- B. Resilient base.
- C. Installation accessories.

**1.02 REFERENCE STANDARDS**

- A. ASTM F1861 - Standard Specification for Resilient Wall Base; 2016.
- B. RFCI (RWP) - Recommended Work Practices for Removal of Resilient Floor Coverings; 2011.

**1.03 SUBMITTALS**

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Provide data on specified products, describing physical and performance characteristics; including sizes, patterns and colors available; and installation instructions.
- C. Selection Samples: Submit manufacturer's complete set of color samples for Architect's initial selection.

**1.04 QUALITY ASSURANCE**

- A. Manufacturer Qualifications: Company specializing in manufacturing specified flooring with minimum three years documented experience.

**PART 2 PRODUCTS**

**2.01 TILE FLOORING**

- A. Vinyl Tile: Printed film type, with transparent or translucent wear layer.
  - 1. Manufacturers:
    - a. Mannington Mills, Inc; Color Anchor, Groove: [www.mannington.com/#sle](http://www.mannington.com/#sle).

**2.02 RESILIENT BASE**

- A. Resilient Base: ASTM F1861, Type TS rubber, vulcanized thermoset; top set Style B, Cove.
  - 1. Manufacturers:
    - a. Burke Flooring; Commercial Wall Base - TS: [www.burkeflooring.com/#sle](http://www.burkeflooring.com/#sle).
    - b. Johnsonite, a Tarkett Company; \_\_\_\_\_: [www.johnsonite.com/#sle](http://www.johnsonite.com/#sle).
    - c. Roppe Corp; \_\_\_\_\_: [www.roppe.com/#sle](http://www.roppe.com/#sle).
  - 2. Height: 4 inch (100 mm).
  - 3. Thickness: 0.125 inch (3.2 mm).
  - 4. Finish: Satin.
  - 5. Length: Roll.
  - 6. Color: To be selected by Architect from manufacturer's full range.

**2.03 ACCESSORIES**

- A. Subfloor Filler: White premix latex; type recommended by adhesive material manufacturer.

**PART 3 EXECUTION**

**3.01 EXAMINATION**

- A. Verify that surfaces are flat to tolerances acceptable to flooring manufacturer, free of cracks that might telegraph through flooring, clean, dry, and free of curing compounds, surface hardeners, and other chemicals that might interfere with bonding of flooring to substrate.

**3.02 PREPARATION**

- A. Remove existing resilient flooring and flooring adhesives; follow the recommendations of RFCI (RWP).

- B. Prepare floor substrates as recommended by flooring and adhesive manufacturers.
- C. Remove sub-floor ridges and bumps. Fill minor low spots, cracks, joints, holes, and other defects with sub-floor filler to achieve smooth, flat, hard surface.
- D. Prohibit traffic until filler is fully cured.
- E. Clean substrate.
- F. Apply primer as required to prevent "bleed-through" or interference with adhesion by substances that cannot be removed.

### **3.03 INSTALLATION - GENERAL**

- A. Starting installation constitutes acceptance of sub-floor conditions.
- B. Install in accordance with manufacturer's written instructions.
- C. Spread only enough adhesive to permit installation of materials before initial set.
- D. Fit joints and butt seams tightly.
- E. Set flooring in place, press with heavy roller to attain full adhesion.
- F. Where type of floor finish, pattern, or color are different on opposite sides of door, terminate flooring under centerline of door.
- G. Install edge strips at unprotected or exposed edges, where flooring terminates, and where indicated.
- H. Scribe flooring to walls, columns, cabinets, floor outlets, and other appurtenances to produce tight joints.

### **3.04 INSTALLATION - TILE FLOORING**

- A. Mix tile from container to ensure shade variations are consistent when tile is placed, unless otherwise indicated in manufacturer's installation instructions.

### **3.05 INSTALLATION - RESILIENT BASE**

- A. Fit joints tightly and make vertical. Maintain minimum dimension of 18 inches (45 mm) between joints.
- B. Miter internal corners. At external corners, "V" cut back of base strip to 2/3 of its thickness and fold. At exposed ends, use premolded units.
- C. Install base on solid backing. Bond tightly to wall and floor surfaces.
- D. Scribe and fit to door frames and other interruptions.

### **3.06 CLEANING**

- A. Remove excess adhesive from floor, base, and wall surfaces without damage.
- B. Clean in accordance with manufacturer's written instructions.

### **3.07 PROTECTION**

- A. Prohibit traffic on resilient flooring for 48 hours after installation.

**END OF SECTION 09 6500**

**SECTION 09 9000**  
**PAINTING AND COATING**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Surface preparation.
- B. Field application of paints.
- C. Scope: Finish all interior and exterior surfaces exposed to view, unless fully factory-finished and unless otherwise indicated, including the following:
  - 1. Prime surfaces to receive wall coverings.
- D. Do Not Paint or Finish the Following Items:
  - 1. Items fully factory-finished unless specifically so indicated; materials and products having factory-applied primers are not considered factory finished.
  - 2. Items indicated to receive other finishes.
  - 3. Items indicated to remain unfinished.
  - 4. Fire rating labels, equipment serial number and capacity labels, and operating parts of equipment.
  - 5. Stainless steel, anodized aluminum, bronze, terne, and lead items.
  - 6. Marble, granite, slate, and other natural stones.
  - 7. Floors, unless specifically so indicated.
  - 8. Ceramic and other tiles.
  - 9. Brick, architectural concrete, cast stone, integrally colored plaster and stucco.
  - 10. Glass.
  - 11. Acoustical materials, unless specifically so indicated.
  - 12. Concealed pipes, ducts, and conduits.

**1.02 REFERENCE STANDARDS**

- A. 40 CFR 59, Subpart D - National Volatile Organic Compound Emission Standards for Architectural Coatings; U.S. Environmental Protection Agency; current edition.

**1.03 SUBMITTALS**

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Provide complete list of all products to be used, with the following information for each:
  - 1. Manufacturer's name, product name and/or catalog number, and general product category (e.g. "alkyd enamel").
  - 2. MPI product number (e.g. MPI #47).
  - 3. Cross-reference to specified paint system(s) product is to be used in; include description of each system.
  - 4. Manufacturer's installation instructions.
- C. Samples: Submit three paper "draw down" samples, 8-1/2 by 11 inches (216 by 279 mm) in size, illustrating range of colors available for each finishing product specified.
  - 1. Where sheen is specified, submit samples in only that sheen.
- D. Manufacturer's Instructions: Indicate special surface preparation procedures.

**1.04 QUALITY ASSURANCE**

- A. Manufacturer Qualifications: Company specializing in manufacturing the products specified, with minimum three years documented experience.

**1.05 FIELD CONDITIONS**

- A. Do not apply materials when surface and ambient temperatures are outside the temperature ranges required by the paint product manufacturer.

- B. Follow manufacturer's recommended procedures for producing best results, including testing of substrates, moisture in substrates, and humidity and temperature limitations.
- C. Provide lighting level of 80 ft candles (860 lx) measured mid-height at substrate surface.

## **PART 2 PRODUCTS**

### **2.01 MANUFACTURERS**

- A. Provide all paint and coating products used in any individual system from the same manufacturer; no exceptions.
- B. Provide all paint and coating products from the same manufacturer to the greatest extent possible.
  - 1. In the event that a single manufacturer cannot provide all specified products, minor exceptions will be permitted provided approval by Architect is obtained using the specified procedures for substitutions.
  - 2. Substitution of a different paint system using MPI-approved products by the same manufacturer will be considered.
- C. Paints:
  - 1. Benjamin Moore & Co: [www.benjaminmoore.com/#sle](http://www.benjaminmoore.com/#sle).
  - 2. PPG Paints: [www.ppgpaints.com/#sle](http://www.ppgpaints.com/#sle).
  - 3. Sherwin-Williams Company: [www.sherwin-williams.com/#sle](http://www.sherwin-williams.com/#sle).
  - 4. Farrell Calhoun: [www.farrellcalhoun.com](http://www.farrellcalhoun.com).
- D. Primer Sealers: Same manufacturer as top coats.
- E. Substitutions: See Section 01 6000 - Product Requirements.

### **2.02 PAINTS AND COATINGS - GENERAL**

- A. Paints and Coatings: Ready mixed, unless intended to be a field-catalyzed coating.
  - 1. Provide paints and coatings of a soft paste consistency, capable of being readily and uniformly dispersed to a homogeneous coating, with good flow and brushing properties, and capable of drying or curing free of streaks or sags.
  - 2. Supply each coating material in quantity required to complete entire project's work from a single production run.
  - 3. Do not reduce, thin, or dilute coatings or add materials to coatings unless such procedure is specifically described in manufacturer's product instructions.
- B. Primers: As follows unless other primer is required or recommended by manufacturer of top coats; where the manufacturer offers options on primers for a particular substrate, use primer categorized as "best" by the manufacturer.
- C. Volatile Organic Compound (VOC) Content:
  - 1. Provide coatings that comply with the most stringent requirements specified in the following:
    - a. 40 CFR 59, Subpart D--National Volatile Organic Compound Emission Standards for Architectural Coatings.
  - 2. Determination of VOC Content: Testing and calculation in accordance with 40 CFR 59, Subpart D (EPA Method 24), exclusive of colorants added to a tint base and water added at project site; or other method acceptable to authorities having jurisdiction.
- D. Colors: As indicated on drawings
  - 1. Allow for minimum of three colors for each system, unless otherwise indicated, without additional cost to Owner.

### **2.03 PAINT SYSTEMS - INTERIOR**

- A. Paint I-OP - All Interior Surfaces Indicated to be Painted, Unless Otherwise Indicated: Including gypsum board, uncoated steel, shop primed steel, and galvanized steel.
  - 1. Two top coats and one coat primer.
  - 2. Primer(s): As recommended by manufacturer of top coats.



## **2.04 ACCESSORY MATERIALS**

- A. Accessory Materials: Provide all primers, sealers, cleaning agents, cleaning cloths, sanding materials, and clean-up materials required to achieve the finishes specified whether specifically indicated or not; commercial quality.
- B. Patching Material: Latex filler.
- C. Fastener Head Cover Material: Latex filler.

## **PART 3 EXECUTION**

### **3.01 EXAMINATION**

- A. Verify that surfaces are ready to receive work as instructed by the product manufacturer.
- B. Examine surfaces scheduled to be finished prior to commencement of work. Report any condition that may potentially affect proper application.
- C. Test shop-applied primer for compatibility with subsequent cover materials.
- D. Measure moisture content of surfaces using an electronic moisture meter. Do not apply finishes unless moisture content of surfaces are below the following maximums:
  - 1. Gypsum Wallboard: 12 percent.

### **3.02 PREPARATION**

- A. Clean surfaces thoroughly and correct defects prior to coating application.
- B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
- C. Remove or mask surface appurtenances, including electrical plates, hardware, light fixture trim, escutcheons, and fittings, prior to preparing surfaces or finishing.
- D. Seal surfaces that might cause bleed through or staining of topcoat.
- E. Remove mildew from impervious surfaces by scrubbing with solution of tetra-sodium phosphate and bleach. Rinse with clean water and allow surface to dry.
- F. Gypsum Board Surfaces to be Painted: Fill minor defects with filler compound. Spot prime defects after repair.
- G. Galvanized Surfaces to be Painted: Remove surface contamination and oils and wash with solvent. Apply coat of etching primer.
- H. Uncorroded Uncoated Steel and Iron Surfaces to be Painted: Remove grease, mill scale, weld splatter, dirt, and rust. Where heavy coatings of scale are evident, remove by hand or power tool wire brushing or sandblasting; clean by washing with solvent. Apply a treatment of phosphoric acid solution, ensuring weld joints, bolts, and nuts are similarly cleaned. Prime paint entire surface; spot prime after repairs.
- I. Shop-Primed Steel Surfaces to be Finish Painted: Sand and scrape to remove loose primer and rust. Feather edges to make touch-up patches inconspicuous. Clean surfaces with solvent. Prime bare steel surfaces. Re-prime entire shop-primed item.

### **3.03 APPLICATION**

- A. Apply products in accordance with manufacturer's instructions.
- B. Do not apply finishes to surfaces that are not dry. Allow applied coats to dry before next coat is applied.
- C. Apply each coat to uniform appearance.
- D. Sand wood and metal surfaces lightly between coats to achieve required finish.
- E. Vacuum clean surfaces of loose particles. Use tack cloth to remove dust and particles just prior to applying next coat.

- F. Reinstall electrical cover plates, hardware, light fixture trim, escutcheons, and fittings removed prior to finishing.

**END OF SECTION 09 9000**



