

# PROJECT MANUAL

## CAMP DODGE A-1 PENTHOUSE REPAIRS CAMP DODGE, JOHNSTON, IOWA

Project No. 19083788  
Contract No. 322A1008

**MARCH 20, 2025**

**INVISION**  
PLANNING | ARCHITECTURE | INTERIORS

INVISION Project No.: 24115



**IOWA ARMY NATIONAL GUARD**

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# PROJECT MANUAL

## CAMP DODGE A-1 PENTHOUSE REPAIRS CAMP DODGE, JOHNSTON, IOWA

For The  
**IOWA ARMY NATIONAL GUARD**

Project No. 19083788  
Contract No. 322A1008

**MARCH 20, 2025**

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*THE ARMORY BOARD  
DEPARTMENT OF PUBLIC DEFENSE (MILITARY DIVISION)*

*THE ADJUTANT GENERAL  
Major General STEPHEN E. OSBORN  
CHAIRMAN OF THE ARMORY BOARD*

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**ISSUED BY:**

Construction & Facilities Management Office  
Camp Dodge, Building 3535 (B-61)  
7105 NW 70th Avenue  
Johnston, IA 50131-1824  
Phone: (515) 252-4269

**CONTRACTING OFFICER:**

Michael Brothers, Design Branch Chief  
Camp Dodge, Building 3535 (B-61)  
7105 NW 70th Avenue  
Johnston, IA 50131-1824  
Phone: (515) 252-4225

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DOCUMENT 00 01 02

PROJECT DESIGN TEAM:

**ARCHITECT:**

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INVISION Architecture LLC  
900 Mulberry Street  
Des Moines, Iowa, 50309  
(515) 681-6039 (phone)  
jasond@invisionarch.com (email)

**ROOF ASSESSMENT:**


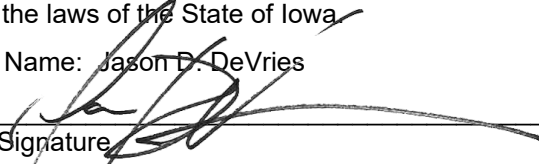
Brett Turner  
Garland/DBS, inc.  
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Cleveland, Ohio, 44105  
(515) 205-8340 (phone)  
bturner@garlandco.com (email)

END OF DOCUMENT 00 01 02

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DOCUMENT 00 01 05

CERTIFICATIONS

	<p>I hereby certify that the portion of this technical submission described below was prepared by me or under my direct supervision and responsible charge. I am a duly Licensed Professional Architect under the laws of the State of Iowa.</p> <p>Name: Jason D. DeVries</p> <p>Signature:  _____ Date: 03.25.25</p> <p>Registration Expires: June 30, 2026 Iowa Reg No. 06713</p> <p>Pages or sheets covered by this seal: G and Architectural Series</p> <p>Divisions: Division 01-08</p>
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Party**

**Number Title**

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**Legend:**

IAARNG: Iowa Army National Guard  
INV: INVISION Architecture

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END OF DOCUMENT 00 01 10

**Legend:**

IAARNG: Iowa Army National Guard  
INV:      INVISION Architecture

ADVERTISEMENT FOR BIDS

**PROJECT TITLE:** CAMP DODGE A-1 PENTHOUSE REPAIRS  
**BID DATE:** APRIL 17, 2025  
**PROJECT LOCATION:** CAMP DODGE, JOHNSTON, IOWA  
**PROJECT NO.:** 19083788  
**CONTRACT NO.:** 322A1008

The Iowa Department of Public Defense, on behalf of the Iowa National Guard (IANG), will be receiving sealed bids until **1:00 P.M.** local time in Conference Room 106 of **BUILDING 3535 (B-61), CAMP DODGE**, 7105 NW 70<sup>TH</sup> AVENUE, JOHNSTON, IOWA 50131-1824 for the proposed CAMP DODGE A-1 PENTHOUSE REPAIRS, CAMP DODGE, JOHNSTON, IOWA. The general scope of work includes, but is not limited to:

Base Bid: Recladding of two mechanical penthouses (No. 1 and 2) at the Iowa National Guard Headquarters building in Johnston, IA. It involves removal of existing cladding and louvers and installation of new metal panel rainscreens, insulation, and air barrier over existing masonry walls. Associated work includes installation of new mechanical louvers and maintaining existing electrical and telecommunication services to rooftop equipment.

Alternate Bid No.1: Add the work described herein on penthouse towers No. 3 and 4.

Bids received will be opened and read aloud at the time and place stated. Late bids will not be considered. Bids must be hand-delivered (bids received via mail, delivery service, oral, telephonic, facsimile or other electronically transmitted bids will not be accepted). Interested parties are invited to attend.

Bids shall be submitted on the Bid Form and shall be accompanied by a Bid Security as set forth in the Instructions to Bidders in the amount of five percent (5%) of the total bid amount. Each bid shall be accompanied by a bid bond executed by corporations authorized to contract as surety in Iowa, cashier's check or a certified check drawn upon a solvent bank chartered under the laws of the United States of America, made payable to Iowa Department of Public Defense; as a guarantee that the accepted bidder shall enter into a contract with the State of Iowa and file an approved surety company Performance and Payment Bond for the faithful performance thereof. Upon failure to comply, said check or bid bond shall become forfeited as liquidated damages.

Any construction contractor performing work in Iowa (including out-of-state contractors) must comply with Chapter 91C of Iowa Code

Bidders must comply with all affirmative action/equal employment opportunity provisions of the State of Iowa and the Federal Government. The Iowa Department of Public Defense, Iowa Army National Guard, seeks to provide opportunities for Targeted Small Businesses in accordance with the provisions of Chapter 73 of the Code of Iowa. A listing of certified Targeted Small Businesses can be obtained by visiting the Iowa Department of Economic Development website at <https://iowaeda.microsoftcrmportals.com/tsb-search/>

The Iowa Department of Public Defense reserves the right to reject any and all bids, and to waive irregularities and to accept a bid that is deemed in the best interest of the State of Iowa and the IANG.

This project is exempt from Iowa Sales Tax. Davis Bacon Wages **will not** apply to this project.

Bidding Documents may be obtained from Beeline and Blue (2507 Ingersoll Avenue, Des Moines, Iowa 50312, (515) 244-1611 or 1-800-347-1610) and will be loaned to qualified contract bidders upon receipt of Master Builders of Iowa non-cash deposit card or a check in the amount of fifty dollars (\$50.00) deposit per set payable to "Iowa Department of Public Defense". Deposit will be refunded to bidders upon return of their complete set of Bidding Documents, including any addenda, properly bound and in good condition to Beeline and Blue within 14 calendar days after opening of bids. Cash deposits will not be accepted.

Bidding Documents may also be viewed online or downloaded at [www.beelineandblue.com](http://www.beelineandblue.com). Click on "EPLANROOM" and then "PUBLIC PROJECTS". Register and log in, then select the project name or enter the project name in the search window.

The Plan Holders List may be viewed online at [www.beelineandblue.com](http://www.beelineandblue.com). Navigate to the project as outlined above and click on the "PLAN HOLDERS" tab.

For questions regarding the website, please call (515) 244-1611 or 1-800-347-1610.

A set of the Bidding Documents is also available for review at the Construction and Facilities Management Office, Bldg 3535 (B-61), Camp Dodge.

Award of this contract is dependent on receiving requested Federal and/or State funding. If such funding is not received within the sixty (60) day bid guarantee after the date of receiving bids, all rights and obligations under this agreement are considered null and void.

A Pre-Bid Conference will be held at **10:00 A.M.** local time, **THURSDAY, APRIL 3, 2025, BUILDING 3850 (A-01) Camp Dodge**, 6100 NW 78<sup>th</sup> Avenue, Johnston, Iowa to review the Plans and Project Manual and to answer questions on this project. All interested parties are invited to attend. Meet in the Atrium.

For further information regarding this project please call Michael Brothers at (515) 252-4225.

END OF DOCUMENT 00 11 00

INSTRUCTIONS TO BIDDERS

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## ARTICLE 1 - DEFINITIONS

- 1.1** The following definitions add to the list of definitions included in the General Conditions of the Contract and shall be used in conjunction with them as a part of the Bidding Documents.
- 1.2** Bidding Documents include The Bidding Requirements and the proposed Contract Documents:
- 1.3** The Bidding Requirements consists of:
- .1 Advertisement For Bids.
  - .2 Instructions to Bidders.
  - .3 Form of Bid
  - .4 Supplements to Form of Bid:
    - .(1) Supplement A: Bid Bond .....(Submit With Form of Bid)
    - .(2) Supplement D: Targeted Small Business Form .....(Submit With Form of Bid)
    - .(3) Supplement F: Substitution Request Form (Bidding Phase).
    - .(4) Supplement G: Proposed Subcontractor Form.
    - .(5) Supplement H: Wage Rate Requirements Statement
    - .(6) Supplement J: 889 Representation Form
- 1.4** The Proposed Contract Documents consists of:
- .1 Form of Agreement between the Owner and Contractor.
  - .2 Conditions of the Contract (General, Supplementary, and other Conditions).
  - .3 Drawings.
  - .4 Specifications.
  - .5 Addenda issued prior to execution of the Contract.
  - .6 Modifications issued after execution of the Contract.
  - .7 Other documents listed in the Agreement.
- 1.5** Definitions set forth in the General Conditions of the Contract for Construction or in other Contract Documents are applicable to the Bidding Documents.
- 1.6** Addenda are a written or graphic instruments issued by the Architect prior to the execution of the Contract which modify or interpret the Bidding Documents by additions, deletions, clarifications, or corrections.
- 1.7** 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.
- 1.8** The Base Bid is the sum stated in the Bid for which the Bidder offers to perform the Work as described in the Bidding Documents.
- 1.9** An Allowance is a specified monetary sum, specified quantity or time not otherwise defined by the specifications or drawings, but which the contractor is required to include in the bid price.
- 1.10** 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.
- 1.11** An Alternate Bid (or Alternate) is an amount stated in the Bid to be added to or deducted from the amount of the Base Bid if the corresponding change in the Work, as described in the Bidding Documents, is accepted.
- 1.12** A Bidder is a person or entity who submits a Bid and who meets the requirements set forth in the Bidding Documents.
- 1.13** 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 - RECEIPT AND OPENING OF BIDS

- 2.1 The Iowa Department of Public Defense (Military Division), Iowa Army National Guard, hereinafter called the Owner, will receive Bids in Conference Room 106 of Building **3535 (B-61)**, Camp Dodge, 7105 NW 70<sup>th</sup> Avenue, Johnston, Iowa 50131-1824, until the established bid date and time (see Section 00 41 00 - Form of Bid). The Owner will then publicly open and read all properly submitted Bids.
- 2.2 The Owner will secure, unopened, all Bids received prior to the established bid date and time. The Owner's representative whose duty it is to open Bids will decide when the specified time has arrived and will not consider any Bid received thereafter.
- 2.3 The Owner will reject and return unopened any Bid received after the time specified for the receipt of Bids.
- 2.4 **Oral, telephonic, telegraphic, facsimile or other electronically transmitted bids will not be considered.**
- 2.5 **Mailed or Delivery Service Bids will not be considered.**
- 2.6 Each Bidder shall be solely responsible for the delivery of their Bid to the Owner at the place and before the time specified in Paragraph 2.1 above.
- 2.7 Photo identification will be required to gain entrance at the front gate of Camp Dodge.
- 2.8 The Owner acknowledges the responsibility of the Iowa Public Bidding Requirements in advertising and receiving bids for this project.

## ARTICLE 3 - BIDDING DOCUMENTS

- 3.1 Bidders may obtain complete sets of the Bidding Documents from the issuing entity designated in the Advertisement for Bid for the deposit sums stated therein. Deposits will be refunded as designated in the Advertisement for Bid.
- 3.2 Bidders and Sub-bidders shall use complete sets of Bidding Documents in preparing Bids; neither the Owner nor Architect assumes responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents.
- 3.3 The Owner and Architect may make copies of the Bidding Documents available on the above terms for the Purpose of obtaining Bids on the Work. No license or grant of use is conferred by issuance of copies of the Bidding Documents.

## ARTICLE 4 - PREPARATION OF BIDS

- 4.1 Prepare Bids on an exact copy of the "Form of Bid" included in these documents. Fill in all applicable blank spaces, typewritten or in ink. The amount must be in both words and figures. If words and figures do not agree, the amount as written in words shall govern.
- 4.2 All requested Alternates shall be bid. If no change in the Base Bid is required, enter "No Change".
- 4.3 The person signing the Bid must initial all erasures or corrections.
- 4.4 Bids must indicate the full name of the Bidder, must be signed in the firm or corporate name of the Bidder, and must bear the longhand signature of a principal duly authorized to execute contracts for the Bidder. Bids signed by an agent of the Bidder must be accompanied by evidence of the agent's authority to execute contracts for the Bidder. Type or print below the signature the name of each person signing the Bid.

## **ARTICLE 5 - SUBMITTAL OF BIDS**

- 5.1 Enclose in its own sealed envelope the “Form of Bid for Construction Contract” separate from the other required Supplements to the Form of Bid identified below and label with the name of the Bidder and the following designation:

**SEALED BID for:  
CAMP DODGE A-1 PENTHOUSE REPAIRS  
CAMP DODGE, JOHNSTON, IOWA  
Contract Number 322A1008  
Iowa Army National Guard**

- 5.2 Enclose in a second sealed envelope along with the separately sealed “Form of Bid for Construction Contract” the following Supplements to the Form of Bid:

1. Supplement A: The Bid Security (Contractor provided document).
2. Supplement D: Targeted Small Business Form (use provided form).

Label this second sealed envelope with the name and address of the Bidder and the following designation:

**BID DOCUMENTS for:  
CAMP DODGE A-1 PENTHOUSE REPAIRS  
CAMP DODGE, JOHNSTON, IOWA  
Contract Number 322A1008  
Iowa Army National Guard**

- 5.3 **HAND CARRIED BIDS:** Deliver to address indicated in Article 2.1 above.

## **ARTICLE 6 - MODIFICATION OF BIDS**

- 6.1 No modification of submitted Bids in any way or form will be permitted.

## **ARTICLE 7 - WITHDRAWAL OF BIDS**

- 7.2 Any Bid may be withdrawn and resubmitted prior to the time set for the receipt of Bids provided that they are then fully in conformance with these Instructions to Bidders. Bid security shall be in an amount sufficient for the Bid as resubmitted.

- 7.3 No bid may be withdrawn for a period of sixty (60) calendar days after the time set for the receipt of Bids.

## **ARTICLE 8 - IOWA TARGETED SMALL BUSINESS REQUIREMENTS**

- 8.1 **PROGRAM DESCRIPTION AND REQUIREMENTS:**

- 8.1.1 On construction contracts bid competitively for which a participation goal is indicated, each Bidder who is not a Targeted Small Business and who will be using a Certified Targeted Small Business Subcontractor or supplier must:

- .1 Submit with the Form of Bid: Supplement D: Targeted Small Business Form provided herein.
- .2 Comply with all relevant provisions of the Iowa Civil Rights Act, Chapter 601A; Executive Order #11, 1984, and #15, 1973, as appended by Executive Order #34, dated July 22, 1988; Federal Executive Order #11245, 1965, as amended by Federal Executive Order #11375, 1967; the Equal Employment Opportunity Act of 1972; and Iowa Code Section 19B.7.
- .3 Comply with all provisions of the State of Iowa relevant to fair employment practices, and furnish all information and submit all reports requested by these provisions.

- .4 Continue to use the Iowa Targeted Small Business certification guidelines as set out in 481-Chapter 25 of the Iowa Administrative Code for the purpose of identifying Targeted Small Businesses for participation in the award of general and subcontracts.
- 8.1.2** The mandatory set-aside requirements and bid preferences required by Iowa Code Sections 73.16 to 73.21 are not currently in effect. Use the following guidelines to encourage Targeted Small Business participation.
- 8.1.3** DEFINITIONS:
- .1 Actively manage means exercising the power to make policy decisions affecting the business.
  - .2 Minority person means an individual who is black, Hispanic, Pacific Island native, American Indian, or Alaskan Native.
  - .3 Operated means actively involved in the day-to-day management of the business.
  - .4 Small Business means any enterprise which is located in this State, which is operated for profit under a single management, and which has either fewer than twenty employees or an annual gross income of less than three million dollars computed as an average of the three previous years.
- 8.2** The Department of Public Defense (Military Division), Iowa Army National Guard (IAARNG), seeks to provide opportunities for Targeted Small Businesses in the awarding of contracts. The IAARNG may award contracts to Targeted Small Businesses under the terms of the Iowa Small Business Procurement Act of 1986 and the Iowa Administrative Code. The IAARNG is also authorized to establish certified Targeted Small Business participation requirements for construction contracts.
- 8.3** When entering into this contract with the IAARNG, the General Contractor will take documented steps to encourage participation from Targeted Small Businesses for the purpose of subcontracting or supplying of materials. This project has a Targeted Small Business participation goal of ten percent (10%).
- 8.4** If a prime contractor fails to meet the Targeted Small Business participation goal indicated, the prime contractor shall still be required to submit with the Form of Bid (on the Targeted Small Business Form provided herein) the names of Targeted Small Businesses contacted.
- 8.5** If the Bidder intends to subcontract with a certified Targeted Small Business in the absence of a stated Targeted Small Business participation goal, the Bidder should inform the State Comptroller Office of this intent by submitting a Targeted Small Business Form so that they may receive credit for this participation.

**ARTICLE 9 - BID SECURITY FOR TARGETED SMALL BUSINESS BIDDERS**

- 9.1** On projects where Bid amount exceeds \$25,000.00, the instructions in Article 10, Bid Security for Non-Targeted Small Business Bidders, apply.
- 9.2** On Bids of \$25,000.00 or less, Certified Targeted Small Businesses, as part of the Bid Documents, may either provide a Bid Bond or a bond waiver from the Department of Economic Development.

**ARTICLE 10 - BID SECURITY FOR NON-TARGETED SMALL BUSINESS BIDDERS**

- 10.1** Secure Bids with a cashier's check, certified check, or a Bid Bond in an amount of at least five percent (5%) of the Bid. The Owner will automatically disqualify Bids secured by other means.
- 10.2** Make certified checks and cashier's checks payable to "IOWA DEPARTMENT OF PUBLIC DEFENSE".

- 10.3** Submit Bid Bonds in the form prescribed in these documents. Bid Bonds must be executed solely by corporations authorized to contract a surety in Iowa and, in addition to all other provisions, clearly designate an Iowa resident agent as attorney-in-fact. Attorneys-in-fact who sign surety bonds must file with each bond a certified and effectively dated copy of their power of attorney.
- 10.4** Bid security acts as the measure of liquidated damages which the Owner will sustain by failure, neglect, or refusal of Bidder to deliver a signed contract stipulating performance of the Work in unqualified compliance with Contract Documents within ten (10) days after notification of award of contract is given.
- 10.5** The Owner will return Bid security when submitted in the form of either a cashier's check or a certified check by any Bidder except the three lowest Bidders within forty-eight (48) hours after opening.
- 10.6** The Owner will all return retained Bid securities (cashier's check, or certified check) within forty-eight (48) hours of executing a contract, performance and payment bond with the successful Bidder. If the award process involves more than the bid holding time established in the Bidding Documents, those Bidders whose securities are retained shall have the right to negotiate with the Owner on the matter.

#### **ARTICLE 11 - QUALIFICATION OF BIDDERS**

- 11.1** Bidders must be registered with the Iowa Labor Commissioner. The Bidders must include an Iowa registration number as provided for on the Form of Bid.
- 11.2** Non-resident corporations submitting Bids must be in compliance with Section 490.1501 of the Code of Iowa and legally authorized thereby to carry on such business in the State of Iowa as is required by the Contract Documents.
- 11.3** Non-resident corporations certify by submittal of a Bid that the corporation shall comply with Chapter 73 of the Iowa Code.
- 11.4** The Owner may make such investigations as deemed necessary to determine the ability of the Bidder to perform the Work, and the Bidder must furnish to the Owner all such information and data for these purposes as the Owner may request. The Owner reserves the right to reject any Bid if the evidence submitted by, or investigation of, such Bidder fails to satisfy the Owner that such Bidder is properly qualified to carry out the obligations of the Contract and to complete the Work described herein.
- 11.5** The Owner gives preference to Iowa domestic labor in the constructing or building of any public improvement. By virtue of statutory authority, preference is given to products and provisions produced or grown within the State of Iowa.
- 11.6** Bidders and all Subcontractors shall be prepared to represent post-bid whether they do or do not use prohibited telecommunications equipment or services in accordance with Section 889 Part B of the FY 2019 National Defense Authorization Act (NDAA). Refer to Article 22 – Post-Bid Information

#### **ARTICLE 12 - SUBCONTRACTORS**

- 12.1** In accordance with Iowa law, the successful Bidder must furnish in writing to the Owner a list of the names of subcontractors who will work on the project as described in Article 22.
- 12.2** The Bidder is specifically advised that any person, firm, or other party to whom it is proposed to award a subcontract under this Contract must (1) be registered in the State of Iowa and have contractor's registration number, and (2) be acceptable to the Owner.

## **ARTICLE 13 - BIDDERS REPRESENTATION**

- 13.1** Each Bidder by submitting a Bid represents that:
- 13.1.1** The Bidder has read and completely understands the Bidding Requirements and Contract Documents.
  - 13.1.2** The Bidder has visited the site, become familiar with the local conditions under which the Work is to be performed, including availability and cost of labor and materials, and has carefully correlated personal observations with the requirements of the Contract Documents.
    - .1** A tour of the site will be conducted following the Pre-Bid Conference identified in the Advertisement for Bids. Bidders shall arrange for other site visits in advance by contacting John Kelly at (515) 252-4379 or Michael Brothers at **(515) 252-4225**.
  - 13.1.3** The Bid is based upon the materials, equipment and systems required by the Bidding Documents without exception.
  - 13.1.4** The Bidder has familiarized himself/herself with Federal, State, and Local laws, ordinances, rules, and regulations affecting performance of the Work.
  - 13.1.5** The Bidder agrees that the Contract Time will begin upon receipt of a Notice to Proceed from the Owner, and will achieve Substantial Completion of all the Work within the Contract Time stated on the Bid Form, excepting for delays covered in Article 8 of the General Conditions of the Contract.
  - 13.1.6** The Bidder has given preference to use of Iowa domestic labor and products and provisions produced or grown within the State of Iowa.
- 13.2** Failure of the selected Bidder to fulfill the provisions of this Article in no way relieve the obligation of the Bidder to furnish all materials and labor necessary to carry out the provisions of the Contract, nor shall such failure constitute grounds for extra compensation over the price stated in the accepted Bid.

## **ARTICLE 14 - SUBSTITUTIONS**

- 14.1** 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.
- 14.2** No substitution will be considered during the bidding period unless written request has been submitted to the Architect for approval, on the form provided herein, at least 5 days prior to the bid date. Each such request must include the name of the material, product or equipment for which it is to be substituted and a complete description of the proposed substitution including drawings, cuts, performance and test data, and any other data or information necessary for a complete evaluation. The burden of proof of the merit of the proposed substitution is upon the proposer.
- 14.3** Request for approval of a substitution will not be considered if Substitution Request Form provided herein is not completely filled out.
- 14.4** If the Architect approves any proposed substitution, such approval is not official until set forth in an addendum. Do not include any substitutions not confirmed by written addenda.
- 14.5** Substitutions after the Contract Award may be considered only as provided for in the Conditions of the Contract and Division 1 of the Project Manual.

## **ARTICLE 15 - ADDENDA AND INTERPRETATIONS**

- 15.1** Bidders must carefully examine and compare the Bidding Documents, examine the site and local conditions and at once report any ambiguity, inconsistency, or error discovered. Bidders and Sub-bidders requiring clarification or interpretation of the Bidding Documents shall make written request to the Architect for interpretation or correction. Such requests must reach the Architect at least seven (7) days prior to the bid date.
- 15.2** The Architect will issue any and all interpretations, corrections, revisions, and amendments to all holders of Bidding Documents in the form of written addenda. Addenda will be transmitted at least forty-eight (48) hours prior to the time set for the receipt of Bids to all who are known by the issuing office to have received a complete set of Bidding Documents. Copies of Addenda will be made available for inspection wherever Bidding Documents are on file for that purpose. Each Bidder is responsible to ascertain prior to submitting a Bid that the Bidder has received all Addenda issued. All addenda issued shall become part of the Contract Documents and Bidders must acknowledge them in the Form of Bid.
- 15.3** Only those interpretations, corrections, revisions, and amendments confirmed by written addenda are binding. Bidders are cautioned to refrain from including in their Bid any interpretations, corrections, revisions, or amendments which are not confirmed by written addenda.
- 15.4** Any question relating to the technical specifications may be directed to the individuals identified on Document 00 01 02 – Project Design Team.

## **ARTICLE 16 - BID PREFERENCE**

- 16.1** All Bidders must certify their state or foreign country of residence by completing the official address section of the Form of Bid.
- 16.2** Under Iowa law, as described in the Iowa Administrative Code, resident Bidders on public improvements are allowed a preference equal to the preference given or required by the state or foreign country in which the nonresident Bidder is a resident. "Resident Bidder" means a person or firm authorized to transact business in this State, and having a place of business at which it is and has conducted business for at least six months prior to the first advertisement for the public improvement and, in the case of a corporation, at least fifty percent (50%) of the common stock is owned by residents of this State.

## **ARTICLE 17 - METHOD OF AWARD**

- 17.1** It is the intent of the Owner to award a Contract to the lowest qualified Bidder provided the Bid has been submitted in accordance with the requirements of the Bidding Documents and does not exceed the funds available. The Owner may reject any or all Bids, waive any irregularities, informalities, or technicalities in any Bid, and accept any Bid in whole or in part which it deems to be in the Owner's best interests.
- 17.2** All requested Alternates shall be bid. The Owner reserves the right to accept Alternates in any order or combination, and to determine the low Bidder on the basis of the sum of the Base Bid and Alternate(s) accepted.
- 17.3** Generally, all Bids received by the Owner which require allocation of appropriated Government funding are subject to the acceptance of the issuing department for the State of Iowa. Each prime Bidder, subcontractor, and material supplier on this project agrees to guarantee their Bid for a period of sixty (60) calendar days after the time set for the receipt of Bids.
- 17.4** Award of this contract is dependent on receiving requested Federal and/or State funding. If such funding is not received within the sixty (60) day Bid guarantee after the date of receiving Bids, all rights and obligations to enter into a contract are considered null and void.

- 17.5 The Owner sending a "Notice of Award" to the selected Bidder constitutes award of the Contract.

#### **ARTICLE 18 - EXECUTION OF CONTRACT**

- 18.1 Selected Bidder must, within ten (10) calendar days after receiving Notice of Award, enter into a written contract with the Owner on the Form of Agreement prescribed in these documents.
- 18.2 The Contract, when duly executed, represents the entire agreement between parties.
- 18.3 Simultaneously with the delivery of the executed Contract, the Contractor must furnish a performance and payment surety bond in the amount of 100% of the Contract Sum as security for faithful performance of the Contract and for the payment of all persons performing labor and furnishing materials for the work, or evidence of eligibility for waiver of the bond requirements. The bond shall be on the form prescribed in these documents (Submit one copy only). The surety on such bond shall be by a corporation duly authorized to do business in the State of Iowa, and said bond shall be signed or countersigned by an Iowa Resident Agent. Attorneys-in-fact who sign surety bonds must file with each bond a certified and effectively dated copy of their power of attorney.
- 18.4 Completed Contract and Contract Performance and Payment Bond must be dated the same and executed as per State contracting instruction procedures.
- 18.5 The Owner will maintain a contract administration system ensuring that contractors perform in accordance with the terms, conditions, and specification of their Contract Document.

#### **ARTICLE 19 - IOWA STATE BUILDING CODE**

- 19.1 All construction under this Contract must conform to the requirements of the Iowa State Building Code. Adhere to the provisions of the Iowa State Building Code which takes precedence over local governmental bodies' regulations. Perform work not regulated by the Iowa State Building Code in accordance with other applicable local regulations.

#### **ARTICLE 20 - TAXES**

- 20.1 This project is TAX EXEMPT. Refer to Article 3.6 of the General Conditions (as modified by the Supplementary Conditions) and Article 22.3 of the Instructions To Bidders.

#### **ARTICLE 21 - PREBID CONFERENCE**

- 21.1 The Owner invites Bidders to attend a pre-bid conference on the date, time, and location specified in the Advertisement for Bids.

#### **ARTICLE 22 - POST-BID INFORMATION**

- 22.1 Prior to consideration for Award of Contract, the Apparent Low Bidder shall submit for the general contractor and ALL subcontractors a completed:
- 22.1.1 Supplement J: 889 Representation Form.
- .1 Failure of the bidding entity to successfully meet the requirements of Section 889 Part B of the 2019 NDAA, either through non-use of the prohibited equipment or meeting the mitigation requirements as outlined in Supplement J, will result in the bid being rejected. Failure to meet these requirements by a proposed subcontractor will result in their rejection and trigger the actions outlined in Section 22.2.1 below.
- 22.2 The Awarded Bidder shall, within forty eight (48) hours of notification of selection for the award of a Contract for the Work, submit:

**22.2.1 Supplement G - Proposed Subcontractor Form:**

- .1 Include the following:
  - (1). A designation of the Work to be performed by the Bidder with his/her own forces.
  - (2). A list of names of the subcontractors or other persons or entities (including those who are to furnish materials or equipment fabricated to a special design) proposed for each principal portion of the Work including but not limited to Mechanical Work, Electrical Work, Masonry Work, and Telecommunication Work (as applicable).
  - (3). The list must include Iowa Contractor's registration numbers for all Subcontractors.
- .2 The Bidder will be required to establish to the satisfaction of the Architect and the Owner the reliability and responsibility of the proposed subcontractors or other persons or entities to furnish and perform the Work described in the Bidding Documents.
- .3 Prior to the execution of the Contract, the Architect will notify the Bidder in writing if either the Owner or the Architect, after due investigation, has reasonable objection to any subcontractor, person or entity on such list. If the Owner or Architect has a reasonable objection to any subcontractor, person or entity on such list, the Bidder may, at the Bidder's option:
  - (1). Withdraw the Bid.
  - (2). Submit an acceptable substitute subcontractor, person or entity with an adjustment in the Base Bid or Alternate Bid to cover 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 under this subparagraph, bid security will not be forfeited, notwithstanding anything to the contrary in Paragraph "Bid Security" of this Section.
- .4 Subcontractors and other persons and entities proposed by the Bidder and to whom the Owner and the 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 the Architect.

**22.3** The Awarded Bidder shall, within one week following the Pre-Construction meeting and prior to purchasing any materials for the Work, submit a completed 'Sales Tax Exempt Application Form'. The Owner will email an electronic copy of the form to the General Contractor shortly after the Pre-Construction Meeting.

END OF DOCUMENT 00 21 00

**FORM OF BID**  
for  
**CONSTRUCTION CONTRACT**

<b>I. PROJECT TITLE:</b>	<b>BID DATE:</b>	APRIL 17, 2025
CAMP DODGE A-1 PENTHOUSE REPAIRS		AT: 1:00 p.m. Local time
<b>PROJECT LOCATION:</b>	<b>PROJECT NO.:</b>	19083788
CAMP DODGE, JOHNSTON, IOWA	<b>CONTRACT NO.:</b>	322A1008

TO: Iowa Army National Guard  
State Comptroller Office  
Attn: Contracting Officer  
(Reference Section 00 21 00 for Submittal of Bids)

**II. ACKNOWLEDGEMENT**

A. The undersigned Bidder, in response to your Advertisement for Bids for construction of the above project, having examined the Drawings, Specifications, and other Bidding Documents and the site of the proposed work, and being familiar with all of the conditions surrounding the construction of the proposed project including the availability of materials and labor, hereby proposes to furnish all labor, materials, and supplies, and to construct the project in accordance with the proposed Contract Documents within the time set forth therein and at the prices stated below. These prices are to cover all expenses incurred in performing the work required under the proposed Contract Documents of which this bid is a part.

B. Accompanying this proposal are the following required documents:

- 1) Supplement A: The Bid Security .....(Contractor provided document).
- 2) Supplement D: Targeted Small Business Form .....(use provided form).

C. Bidder acknowledges receipt of the following Addenda which are a part of the Bidding Documents:  
Numbers \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_.

**III. LUMP SUM PROPOSAL**

A. **BASE BID:** Bidder agrees to perform all of the work described in the proposed Contract Documents and shown on the Drawings for the Sum of:

\_\_\_\_\_  
Dollars (\$ \_\_\_\_\_)

B. **ALTERNATE No. 1:** Bidder agrees to perform all of the work described in the proposed Contract Documents and shown on the Drawings. ADD / DEDUCT the Sum of:

\_\_\_\_\_  
Dollars (\$ \_\_\_\_\_)

C. **Amounts will be shown in both words and figures. In case of discrepancy, the amount in words will govern.**

**IV. SCHEDULE**

- A. It is estimated that work can commence by..... \_\_\_\_\_ (mm/dd/yyyy).  
and be completed by..... \_\_\_\_\_ (mm/dd/yyyy).  
  
(Note: Not a bid award determining factor.)

**V. SUBMISSION CONDITIONS**

- A. In submitting this bid, it is understood that the Owner reserves the right to accept Alternates in any order or combination and to determine the low Bidder on the basis of the sum of the Base Bid and Alternate(s) accepted.
- B. Bidder hereby certifies: (a) that his bid is genuine and is not made in the interest of or on behalf of any undisclosed person, firm, or corporation; (b) that Bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid; (c) that Bidder has not solicited or induced any person, firm, or corporation to refrain from bidding; (d) that Bidder has not sought by collusion to obtain any advantage over any other bidder or over Owner.

**VI. CONTRACTOR SIGNATURE**

- A. Respectfully Submitted:

Firm Name: \_\_\_\_\_ Telephone No.: \_\_\_\_\_

Official Address: \_\_\_\_\_ FAX No.: \_\_\_\_\_

\_\_\_\_\_ EMAIL: \_\_\_\_\_

Mailing Address: \_\_\_\_\_  
(if different from above)

\_\_\_\_\_

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

Printed Name: \_\_\_\_\_

\_\_\_\_\_  
(Title)

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

Federal ID No.: \_\_\_\_\_

Iowa Contractor Registration No.: \_\_\_\_\_

END OF DOCUMENT 00 41 00

DOCUMENT 00 43 13

SUPPLEMENT A:  
BID BOND

**(To be submitted with the Form of Bid if securing Bid with a Bid Bond)**

AIA Document A310 - Bid Bond, 2010 Edition, is hereby a part of the Specifications as if it were bound herein.

Copies and samples for preview of the document can be obtained online from:  
<https://www.aiacontracts.org/purchase>.

END OF DOCUMENT 00 43 13

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SUPPLEMENT D: TARGETED SMALL BUSINESS FORM

(To be submitted with Form of Bid)

I. **PROJECT TITLE:**  
CAMP DODGE A-1 PENTHOUSE REPAIRS

**PROJECT NO.:** 19083788  
**CONTRACT NO.:** 322A1008

**PROJECT LOCATION:**  
CAMP DODGE, JOHNSTON, IOWA

\_\_\_\_\_  
Bidder's Company Name

\_\_\_\_\_  
Area Code/Telephone

\_\_\_\_\_  
Address

\_\_\_\_\_  
City

\_\_\_\_\_  
State

\_\_\_\_\_  
Zip Code

Bidder is \_\_\_\_\_ is not \_\_\_\_\_ a certified Iowa Targeted Small Business.

**INSTRUCTIONS:** Bidder shall provide the information requested below showing any Targeted Small Business Enterprise contacts made prior to bid submission for the project listed. Bidder shall use the construction-related Iowa Targeted Small Business Directory as certified by the Department of Economic Development, State of Iowa. Bidders shall comply with all affirmative action/equal opportunity provisions of State and Federal laws. The Owner seeks to provide opportunities for Targeted Small Businesses in accordance with the provisions of Chapter 73 of the Code of Iowa. Information is subject to verification and confirmation.

TSB Company Name and Phone #	Date Contacted	Quote Rec'd (Y/N)	\$ Amount Proposed (if quote used in bid)

(Use second sheet if needed)

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature of Bidder (same person signing the Form of Bid)

END OF DOCUMENT 00 43 16

(This page intentionally left blank)

SUPPLEMENT F:  
SUBSTITUTION REQUEST FORM (BIDDING PHASE)

TO: **FORWARD ALL SUBSTITUTION REQUESTS TO:**

Roland Ganter, INVISION Architecture  
360 Westfield Avenue, Suite 401  
Waterloo, IA 50701  
(319) 610-2678  
[rolandg@invisionarch.com](mailto:rolandg@invisionarch.com)

PROJECT: CAMP DODGE A-1 PENTHOUSE REPAIRS, CAMP DODGE, JOHNSTON, IOWA

Specification: Title, Section, Page, Paragraph / Article

Proposed Substitution: Description, Manufacturer, Model, Phone No., Trade Name

Product Data: Drawings, Specifications, Performance Data, Test Data – Attached

The Undersigned Certifies: (Check each)

- Substitution is equal or superior in all respects to specified item.
- Will provide same warranty as specified item.
- Same maintenance service and source of replacement parts, as applicable, are available.
- Substitution will have no adverse effect on other trades and will not affect or delay progress schedule.
- Substitution does not affect dimensions or functional clearances.
- Will coordinate installation and adjust other work which may be required, at no additional cost to the Owner.
- Waives claims for additional costs or time extensions which may subsequently become apparent.
- Will reimburse Owner for review or design services for re-approval by authorities, for changes in building design, detailing, and construction costs caused by the substitutions.

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

Signature: \_\_\_\_\_

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

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

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

Fax: \_\_\_\_\_

END OF DOCUMENT 00 43 25

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SUPPLEMENT G:  
PROPOSED SUBCONTRACTOR FORM

**(To be submitted within 48 hours of notification of selection for the award of a contract)**

**A. Work proposed to be performed by the Bidder with his/her own forces:**

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_

(attach additional pages as required)

**B. A list of names of the subcontractors or other 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 including but not limited to the following (as applicable):**

1. Mechanical: \_\_\_\_\_
2. Electrical: \_\_\_\_\_
3. Masonry: \_\_\_\_\_
4. Geothermal: \_\_\_\_\_
5. Telecommunication: \_\_\_\_\_
6. \_\_\_\_\_
7. \_\_\_\_\_
8. \_\_\_\_\_
9. \_\_\_\_\_
10. \_\_\_\_\_
11. \_\_\_\_\_
12. \_\_\_\_\_

(attach additional pages as required)

END OF DOCUMENT 00 43 36

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SUPPLEMENT H:  
WAGE RATES REQUIREMENTS STATEMENT



NGB-AEN

DEPARTMENTS OF THE ARMY AND THE AIR FORCE  
NATIONAL GUARD BUREAU  
111 SOUTH GEORGE MASON DRIVE  
ARLINGTON, VA 22204-1382




RECEIVED  
NOV 30 1993 24 NOV 1993

MEMORANDUM FOR SEE DISTRIBUTION FACILITIES & CONSTRUCTION

SUBJECT: Applicability of Davis-Bacon Act

1. The purpose of this memorandum is to clarify the relation of the Davis-Bacon Act to State contracts.
2. All State contracts are exempt from the provisions of the Davis-Bacon Act even though they are funded by 100% Federal funds contributed to the State from the National Guard Bureau. 32 CFR 33.36 (i)(5) requires the use of the Federal Davis-Bacon Act only in cases where it is required by the Federal grant program legislation. Our authorization statues do not require the use of the Davis-Bacon Act. Therefore, the States must follow the applicable State law. Questions should be referred to the State full time Judge Advocate.
3. For further information, please contact Patrick Batt at DSN 327-7911.

FOR THE CHIEF, NATIONAL GUARD BUREAU:

  
DONALD R. FRANKLAND  
LTC EN  
Director of Engineering

DISTRIBUTION

Each TAG (1)

CF:

Each FMO (1)

Each USPFO (1)

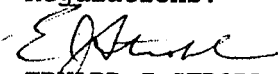
6 JAN 94

MEMORANDUM FOR CW5 JERRY KLINKEFUS

SUBJECT: APPLICABILITY OF DAVIS BACON ACT TO STATE CONTRACT ACTIVITY

1. As a result of my review of the code of IOWA, I have determined that the IOWA state contracting actions which use ARNG appropriations, do not require the Davis Bacon Act clause(s).

2. This is consistent with NGB guidance specific to National Guard appropriation and authorization language, part 31, Code of Federal Regulations.

  
EDWARD J STROBL, LT COL, IA ANG  
STAFF JUDGE ADVOCATE

END OF DOCUMENT 00 43 43

SUPPLEMENT J:  
889 REPRESENTATION FORM

<b>MICRO-PURCHASE NATIONAL DEFENSE AUTHORIZATION ACT (NDAA) SECTION 889 REPRESENTATION</b>			
<i>For additional information see: <a href="https://www.acquisition.gov/FAR-Case-2019-009/889_Part_B">https://www.acquisition.gov/FAR-Case-2019-009/889_Part_B</a></i>			
1. <input type="checkbox"/> Merchant has an active registration in SAM ( <a href="http://www.sam.gov">www.sam.gov</a> ) <b>and</b> FAR 52.204-26 is dated Oct 2020 (or later) <input type="checkbox"/> Merchant is not registered in SAM ( <a href="http://www.sam.gov">www.sam.gov</a> ) <b>or</b> is registered, but FAR 52.204-26 is dated earlier than Oct 2020			
2. Company Name / Merchant (Offeror)			3. Date
4. Company Street Address		5. City	6. State
7. Zip Code			
8. Owner or Designated Representative Name		9. E-mail	10. Telephone Number
11. DUNS Number (if applicable)	12. Cage Code Number (if applicable)	13. SAM Registration Expiration Date (if applicable)	
14. Complete the following <a href="#">FAR 52.204-26</a> Representation: <p style="text-align: center;"><b>COVERED TELECOMMUNICATIONS EQUIPMENT OR SERVICES-REPRESENTATION (OCT 2020)</b></p> (a) <i>Definitions.</i> As used in this provision, "covered telecommunications equipment or services" and "reasonable inquiry" have the meaning provided in the clause <a href="#">52.204-25</a> , Prohibition on Contracting for Certain Telecommunications and Video Surveillance Services or Equipment. (b) <i>Procedures.</i> The Offeror shall review the list of excluded parties in the System for Award Management (SAM) ( <a href="https://www.sam.gov">https://www.sam.gov</a> ) for entities excluded from receiving federal awards for "covered telecommunications equipment or services". (c)(1) <i>Representation.</i> The Offeror represents that it <input type="checkbox"/> does, <input type="checkbox"/> does not provide covered telecommunications equipment or services as a part of its offered products or to the Government in the performance of any contract, subcontract, or other contractual instrument. (2) After conducting a reasonable inquiry for purposes of this representation, the offeror represents that it <input type="checkbox"/> does, <input type="checkbox"/> does not use covered telecommunications equipment or services, or any equipment, system, or service that uses covered telecommunications equipment or services			
Signature of Owner or Designated Representative identified in Block 8 above.		<div style="border: 1px solid black; width: 150px; height: 30px; background-color: #e0e0e0; margin: 0 auto;"></div>	
<b><i>This representation expires on the date in block 13 or one year from the date in block 3, whichever is soonest. Forward any representation modifications/changes to the sender within 30 days.</i></b>			
<b>Additional Disclosure Instructions to Merchant/Offeror (if applicable)</b>			
(a) If the Offeror represents in (c)(1) above that, "it <i>does</i> provide covered telecommunications equipment [...]", then the Offeror should go to FAR 52.204-24 -- Representation Regarding Certain Telecommunications and Video Surveillance Services or Equipment, paragraph (e)(1) <i>Disclosures</i> ( <a href="https://www.acquisition.gov/far/part-52#FAR_52_204_24">https://www.acquisition.gov/far/part-52#FAR_52_204_24</a> ) to identify the additional documentation that should accompany this representation when sending it back to the sender.			
(b) If the Offeror represents in (c)(2) above that, "it <i>does</i> use covered telecommunications equipment [...]", then the Offeror should go to FAR 52.204-24 -- Representation Regarding Certain Telecommunications and Video Surveillance Services or Equipment, paragraph (e)(2) <i>Disclosures</i> ( <a href="https://www.acquisition.gov/far/part-52#FAR_52_204_24">https://www.acquisition.gov/far/part-52#FAR_52_204_24</a> ) to identify the additional documentation that should accompany this representation when sending it back to the sender.			

GPC-Merchant 889 Representation v.4

END OF DOCUMENT 00 43 46

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FORM OF AGREEMENT BETWEEN OWNER AND CONTRACTOR

**IOWA DEPARTMENT OF PUBLIC DEFENSE  
(MILITARY DIVISION)**

**ARMORY BOARD  
IOWA ARMY NATIONAL GUARD**

**STANDARD CONTRACT FOR CONSTRUCTION**

STATE PROJECT: PROJECT NO.: 19083788  
CONTRACT NO.: 322A1008

AGREEMENT

made as of the \_\_\_\_\_ day of \_\_\_\_\_ in the year of Two Thousand Twenty-Five (2025).

BETWEEN the Owner: Iowa Department of Public Defense (Military Division)  
Armory Board, Iowa Army National Guard, Adjutant General Chairman  
Camp Dodge, 7105 NW 70<sup>th</sup> Avenue, Johnston, Iowa 50131-1824

and the Contractor:

The Project: CAMP DODGE A-1 PENTHOUSE REPAIRS  
CAMP DODGE, JOHNSTON, IOWA

The Architect: INVISION Architecture  
900 Mulberry Street  
Des Moines, Iowa, 50309

Amount: \$ \_\_\_\_\_

Payment to be made by: Iowa Department of Public Defense  
State Comptroller Office  
Building 3465 (W-41), Camp Dodge  
7105 NW 70<sup>th</sup> Avenue  
Johnston, Iowa 50131-1824

The Owner and the Contractor agree as follows:

**ARTICLE 1 - THE CONTRACT DOCUMENTS**

1.1 The Contract Documents consists of this Agreement, the Conditions of the Contract (General, Supplementary, and other Conditions), the Drawings, the Specifications, all Addenda issued prior to execution of this Agreement, all other documents listed in this Agreement, and all Modifications issued after execution of this Agreement; these form the Contract, and all are as fully a part of the Contract as if attached to this Agreement or repeated herein. The Contract represents the entire and integrated agreement between the parties hereto and supersedes prior negotiations, representations or agreements, either written or oral. An enumeration of the Contract Documents, other than modifications, appears in Article 9.

**ARTICLE 2 - THE WORK OF THIS CONTRACT**

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

**ARTICLE 3 - DATE OF COMMENCEMENT AND SUBSTANTIAL COMPLETION**

3.1 DATE OF COMMENCEMENT: The Contractor will be required to commence Work under this Contract by \_\_\_\_\_, after receipt by the Contractor of Notice to Proceed. The Contract Time shall be measured from the date of commencement.

3.2 SUBSTANTIAL COMPLETION: The Contractor shall achieve Substantial Completion of the entire Work not later than \_\_\_\_\_, subject to adjustments of this Contract Time as provided in the Contract Documents.

**ARTICLE 4 - CONTRACT SUM**

4.1 The Owner shall pay the Contractor in current funds for the performance of the Work, subject to additions and deductions by Change Order as provided in the Contract Documents, the Contract Sum of

\$ \_\_\_\_\_

4.2 The Contract Sum is determined as follows:

BASE BID: \$ \_\_\_\_\_

ALTERNATE NO. 1: \$ \_\_\_\_\_

**ARTICLE 5 - PROGRESS PAYMENTS**

5.1 Based upon Applications for Payment submitted to the Architect by the Contractor and Certificates for Payment issued by the Architect, the Owner shall make progress payments on account of the Contract Sum to the Contractor for the period ending on the last day of the month as provided in the Contract Documents and as follows:

5.1.1 Not later than 30 days following the date the Application for Payment is received by the Owner's Representative, ninety-five percent (95%) of the portion of the Contract Sum properly

allocable to labor, materials, and equipment incorporated in the Work and ninety-five percent (95%) of the portion of the Contract Sum properly allocable to materials and equipment suitably stored at the Site or at some other location agreed upon in writing, for the period covered by the Application for Payment, less the aggregate of previous payments made by the Owner, and upon Substantial Completion of the entire Work, a sum sufficient to increase the total payments to ninety-five percent (95%) of the Contract Sum, less such amounts as the Architect shall determine for all incomplete Work, retainage applicable to such work and unsettled claims as provided in the Contract Documents.

**5.2** Application for Payment: One (1) copy shall be submitted to the Architect via email in pdf format on AIA Document G702 - 1992, Application and Certificate for Payment, supported by AIA Document G703 – 1992, Continuation Sheet.

**5.3** Payments due and unpaid under the Contract Documents shall bear interest from the date payment is due in accordance with Section 573.12, Code of Iowa.

## **ARTICLE 6 - FINAL PAYMENT**

**6.1** Final payment, constituting the entire unpaid balance of the Contract Sum, shall be made by the Owner to the Contractor when:

**6.1.1** The Contractor has fully performed the Contract except for the Contractor's responsibility to correct Work as provided in Subparagraph 12.2.2 of the General Conditions and to satisfy other requirements, if any, which extend beyond final payment;

**6.1.2** all closeout documents required to be submitted with the final Application have been received by the Architect; and

**6.1.3** a final Certificate for Payment has been issued by the Architect.

**6.2** The Owner's final payment to the Contractor shall be made thirty days after the issuance of the Owner's Letter of Final Acceptance.

## **ARTICLE 7 - MISCELLANEOUS PROVISIONS**

**7.1** Terms in this Agreement which are defined in the Conditions of the Contract shall have the meanings designated in those Conditions.

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

## **ARTICLE 8 - FUNDING**

**8.1** Award of this contract is dependent on receiving requested Federal and/or State funding. If such funding is not received within the sixty (60) day bid guarantee after the date of receiving bids, all rights and obligations under this agreement are considered null and void.

## **ARTICLE 9 - ENUMERATION OF THE CONTRACT DOCUMENTS**

**9.1** The Contract Documents, except for Modifications issued after execution of this Agreement, are enumerated as follows:

1. This executed Agreement
2. Any issued Addendums
3. Performance and Payment Bond
4. Application and Certificate for Payment
5. General Conditions of the Contract for Construction
6. Supplementary and other Conditions
7. Certificate(s) of Insurance
8. Certificate of Substantial Completion
9. General Requirements (Division 1)
10. Technical Specifications (All other Divisions)
11. Drawings

**STATE OF IOWA:**

Department of Public Defense (Military Division)  
Armory Board, Iowa Army National Guard

**CONTRACTOR:**

By \_\_\_\_\_

\_\_\_\_\_  
(Name Typed)

\_\_\_\_\_  
(Title)

\_\_\_\_\_  
Iowa National Guard  
(Address)

\_\_\_\_\_  
Camp Dodge, 7105 NW 70<sup>th</sup> Avenue

\_\_\_\_\_  
Johnston, Iowa 50131-1824

By \_\_\_\_\_

(Contractor)

\_\_\_\_\_  
(Name Typed)

\_\_\_\_\_  
(Title)

\_\_\_\_\_  
(Address)

Phone No.: \_\_\_\_\_

FAX No.: \_\_\_\_\_

Federal ID No.: \_\_\_\_\_

IA Registration No.: \_\_\_\_\_

NOTE: If the Contractor is a corporation, the following witness signatures are not required, but the annexed Certificate of Corporate Authority must be completed. Type or print names under all witness signatures.

IN WITNESS WHEREOF, the parties hereto have executed this Contract as of the \_\_\_\_\_ day of \_\_\_\_\_, 2025.

(Date to be completed by Owner upon receipt of all signatures.)

\_\_\_\_\_  
State of Iowa - Witness Signature

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

\_\_\_\_\_  
Contractor – Witness Signature

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

**CERTIFICATE OF CORPORATE AUTHORITY**

I, \_\_\_\_\_ certify that I am the  
(typed name of corporate officer other than person signing Contract)  
\_\_\_\_\_ of the corporation named as Contractor  
(typed corporate office of person signing above)  
herein; that \_\_\_\_\_, who signed this Contract on behalf of  
(typed name of person who signed Contract)  
the Contractor, was then \_\_\_\_\_ of said corporation;  
(typed position of person signing Contract)  
that said Contract was duly signed for and in behalf of said corporation by authority of its governing body,  
and is within the scope of its corporate powers.

**AFFIX YOUR CORPORATE SEAL TO THE BOTTOM OF THIS FORM IF ONE EXISTS**

END OF DOCUMENT 00 52 00

DOCUMENT 00 61 00

PERFORMANCE AND PAYMENT BOND

AIA Document A312 – Performance and Payment Bond, 2010 Edition shall be utilized for this project and is hereby a part of the Specifications and Contract Documents as if it were bound herein.

Copies and samples for preview of the document can be obtained online from:  
<https://www.aiacontracts.org/purchase>.

END OF DOCUMENT 00 61 00

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DOCUMENT 00 62 10

APPLICATION AND CERTIFICATE FOR PAYMENT

AIA Document G702 (1992) – Application and Certificate for Payment Form, supported by AIA Document G703 (1992) Continuation Sheet shall be utilized for this project and is hereby a part of the Specifications and Contract Documents as if it were bound herein.

Copies and samples for preview of the document can be obtained online from:  
<https://www.aiacontracts.org/purchase>.

Note: Electronically submit Applications for Payment to the Architect or Engineer per the Supplementary Conditions.

END OF DOCUMENT 00 62 10

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DOCUMENT 00 72 00

GENERAL CONDITIONS

AIA Document A201-2007 – General Conditions of the Contract for Construction, hereafter referred to as General Conditions, forms the General Conditions for this Construction Contract and is hereby a part of the Specifications and Contract Documents as if it were bound herein.

Copies and samples for preview of the document can be obtained online from:  
<https://www.aiacontracts.org/purchase>.

END OF DOCUMENT 00 72 00

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SUPPLEMENTARY CONDITIONS

The following supplements modify the General Conditions of the Contract for Construction, AIA Document A201-2007. Where a portion of the General Conditions is modified or deleted by these Supplementary Conditions, the unaltered portions of the General Conditions shall remain in effect.

Unless noted otherwise, all references are to Articles and Sections of AIA Document A201-2007, General Conditions of the Contract for Construction.

See also related topics in Division 1 – General Requirements for additional requirements.

**REFERENCE ARTICLE 1 - GENERAL PROVISIONS**

1. Reference Section 1.1.1:

A written order for a minor change in the Work may also be issued by the Owner's Construction Manager as provided in Section 2.1.1.5 of these Supplementary Conditions.

2. Reference Section 1.1.2; Add Sections:

**1.1.2.1** All contracts awarded by the State are subject to access by the State, National Guard Bureau, The Comptroller General of the United States, or any of their duly authorized representatives. This includes books, documents, papers, etc., and records of the Contractor which are directly pertinent to that specific contract for the purpose of making audits, examinations, excerpts, and transcriptions.

**1.1.2.2** Regulations for proper operation and administration of construction contracts: Code of Federal Regulations (CFR), provide solicitation provisions and contract clauses that pertain to this Project. A copy of these regulations are not bound herein, but are included by reference. Copies may be reviewed in the State Comptroller Office, Building 3465 (W-41), Camp Dodge, 7105 NW 70th Avenue, Johnston, Iowa 50131-1824.

3. Reference Section 1.2.1; Add Section:

**1.2.1.1** In the event of conflicts or discrepancies among the Contract Documents, interpretations will be based on the following priorities:

- .1 Modifications
- .2 The Agreement.
- .3 Addenda, with those of later date having precedence over those of earlier date.
- .4 The Supplementary Conditions.
- .5 The General Conditions of the Contract for Construction.
- .6 Division 1 of the Specifications.
- .7 Drawings and Divisions 2-49 of the Specifications.
- .8 Other documents specifically enumerated in the Agreement as part of the Contract Documents.

In the case of conflicts or discrepancies between Drawings and Division 2-49 of the Specifications or within or among the Contract Documents and not clarified by Addendum, the Architect will determine which takes precedence in accordance with Sections 4.2.11, 4.2.12, and 4.2.13. In instances where conflict or discrepancy involves quality or quantities, the better quality or greater quantity of work will take precedence.

4. Reference Section 1.5; Delete Section 1.5.1 and substitute the following:

**1.5.1** All Drawings, Specifications, and other Instruments of Service, and copies thereof, including those in electronic form, are and shall remain the Owner's property with the exception of one contract set for each party to the Contract.

5. Reference Section 1.5; Delete Section 1.5.2 and substitute the following:

**1.5.2** The Drawings, Specifications and other Instruments of Service prepared by the Owner or Architect and Architect's consultants, and copies thereof furnished to, or made by, the Contractor, are for use solely with respect to this Project. They are not to be reproduced or used by the Contractor or any Subcontractor, Sub-subcontractor or material or equipment supplier on other projects or for additions to this Project outside the scope of Work without the specific written consent of the Owner.

## **REFERENCE ARTICLE 2 - OWNER**

6. Reference Section 2.1.1; Add Sections:

**2.1.1.1** Unless otherwise indicated, the term Owner where referred to in the Contract Documents shall mean The Armory Board for the Iowa Army National Guard – Adjutant General Chairman.

**2.1.1.2** The Owner's Representative shall be the State Contracting Officer for the Iowa Army National Guard – State Comptroller Office, executing the Contract on behalf of the State and any other officer or civilian employee properly designated Contracting Officer.

The Owner's Representative hereby authorizes the following persons to represent the Owner in the fulfillment of their respective duties as hereinafter described:

1. The Architect
2. The Owner's Construction Manager

### **2.1.1.3** Duties of the Owner's Representative

1. The Owner's Representative is authorized to act on behalf of the Owner and shall fulfill the duties, rights and obligations of the Owner under the Contract Documents.
2. The Owner's Representative will prepare and initiate Contract Change Orders in accordance with Section 7.2.
3. The Owner's Representative will have authority to reject Work that does not conform to the Contract Documents in accordance with Section 4.2.6 after review with the Architect.

### **2.1.1.4** Duties of the Architect

1. The Architect is as defined in Section 4.1.1 and shall provide administration of the Contract as described in the Contract Documents.

### **2.1.1.5** Duties of the Construction Manager

1. The Owner's Construction Manager shall act on behalf of the Owner in all daily actions and communication in accordance with Section 4.2.4.
2. The Owner's Construction Manager shall be responsible for communication and coordination of concerns of the Project to and from all persons within the Owner's organization.
3. The Owner's Construction Manager shall observe the progress of the Work and report any observed deviations from the Contract Documents to the Architect for a determination. The Owner's Construction Manager is not authorized to permit deviations from the Contract Documents.

4. The Owner's Construction Manager shall assist in coordinating the Contractor's operations with those of the Owner. The Owner's Construction Manager, however, shall not perform any duties for the Contractor.
5. The Owner's Construction Manager shall have the authority to, and may issue an order for a minor change in the Work in accordance with Section 7.4 after review with the Architect.

7. Reference Section 2.2; Delete Section 2.2.5 and substitute the following:

**2.2.5** No copies of the Contract Documents will be furnished by the Owner to the Contractor with the exception of any complete sets of Bidding Documents returned to the issuing entity designated in the Advertisement for Bids. Additional reproductions may be made by the Contractor pursuant to Section 1.5.2.

8. Reference Section 2.2; Add Section:

**2.2.6** The Owner will procure and bear costs of Special Inspections if required by applicable building codes for the project. See Section 13.5.1.1 of these Supplementary Conditions for additional requirements.

### **REFERENCE ARTICLE 3 - CONTRACTOR**

9. Reference Section 3.1.1; Add Section:

**3.1.1.1** Under Chapter 91C of the Iowa Code (1989), any construction contractor performing work in Iowa (including out-of-state contractors) is required to register with the Iowa Division of Labor. (See Article 11 of the Instructions to Bidders).

10. Reference Section 3.2.1; Add Section:

**3.2.1.1** The Contract is executed as set forth in the Instructions to Bidders.

11. Reference Section 3.2; Add Sections:

**3.2.5** Figured dimensions on the Drawings shall be used in preference to scaling the Drawings. If Contractor scales Drawings, dimensions so obtained shall be the sole responsibility of the Contractor.

**3.2.6** Where the Work of the Contractor is affected by finish dimensions of manufacturer's equipment, the finish dimension shall be determined by the Contractor, who shall assume the responsibility for proper coordination.

**3.2.7** If in the opinion of the Contractor it is not reasonably possible to provide first-class Work by following the procedures and requirements detailed or specified in the Contract Documents, the Contractor shall make a written request for interpretation to the Architect outlining the conditions and concerns. The Contractor shall not proceed with the portion of the Work in question until a response has been received from the Architect. The Architect shall respond with reasonable promptness.

12. Reference Section 3.3; Add Sections:

**3.3.4** The Contractor shall not be relieved of obligations to perform the Work in accordance with the Contract Documents either by activities or duties performed by the Owner or Architect in the Administration of the Contract, or by tests, inspections or approvals required or performed by persons other than the Contractor.

**3.3.5** The Contractor shall perform the Work so as to cause a minimum of inconvenience to and interruption of the Owner's operations. Any and all interruptions of the operations of the Owner necessary for the performance of the Work shall be noted in the progress schedule and the Contractor shall additionally give the Owner sufficient advance notice of such interruptions as to allow the Owner time to adjust its operations accordingly. Contractor's failure to give the Owner timely notice of such intentions shall place the responsibility for any resulting delays, additional costs, or other liabilities solely with the Contractor.

**3.3.6** Prior to commencing the Work under the Contract, the Contractor shall contact all affected entities supplying utilities and arrange for the moving of such utility installations as is necessary for the performance of the Work. It shall be the responsibility of the Contractor to coordinate the Work with that of the affected entities in such a manner as to cause the least possible interference.

13. Reference Section 3.4.1; Add Section:

**3.4.1.1** By virtue of statutory authority, give preference to Iowa domestic labor and materials in the execution of the Work, in accordance with provisions of Chapter 73, Code of Iowa, 1962, and amendments including Senate File 2160, dated April 11, 1984. Machinery, equipment, materials and articles installed or used without such approval are at risk of subsequent rejection.

14. Reference Section 3.4.2; Add Section:

**3.4.2.1** After the Contract has been executed, the Owner and Architect will consider a formal request for the substitution of products in place of those specified only under the conditions set forth in the General Requirements (Division 1 of the Specifications).

15. Reference Section 3.5; Add Sections:

**3.5.1** This warranty shall be for the period specified in the Contract Performance and Payment Bond unless a longer period is required elsewhere in the Contract Documents for certain portions of Work, in which case the longer period shall govern.

**3.5.2** The general warranty provided herein is in addition to and not in limitation of the Contractor's obligations under Section 12.2 and any other warranty or remedy provided by law or by the Contract Documents.

**3.5.3** The Contractor will furnish maintenance and 24-hour call-back service for the equipment provided and/or installed by the Contractor for a period of 3 months after the date of Substantial Completion. This maintenance and service will include repair and regular examinations of the equipment and installation by competent and trained employees of the Contractor, and all necessary adjustments, greasing, oiling, cleaning, supplies and parts required to keep the equipment in proper operations, except such parts made necessary due to misuse, accidents, or negligence not caused by the Contractor, Subcontractors, or Sub-subcontractors.

16. Reference Section 3.6; Delete Section and substitute the following:

**3.6 TAXES**

**3.6.1** This project is TAX EXEMPT.

**.1** The Iowa Department of Public Defense (DPD) is a registered Designated Exempt Entity (DEE) with the Iowa Department of Revenue (IAC chapter 701 - 19.12.) As a DEE, all contractors that are awarded a contract with the Department are issued a tax-exempt certificate for each project that allows the purchase of building materials or withdraw of inventory without incurring a state sales tax. This special exemption certificate would also allow a manufacturer of building materials to consume materials in the performance of a construction contract with a designated exempt entity, without owing tax on the fabricated cost of those materials.

**.2** All Contractors responding to a DPD request for proposal should take this in to consideration when figuring out the cost of materials in the project proposal. Refunds for

state sales tax on building materials will not need to be considered in the proposal and are discouraged. For more information please refer to:

<https://tax.iowa.gov/construction-contracts-designated-exempt-entities>

**.3** If the contract includes machinery or equipment, the contractor must purchase it for resale and give the supplier a regular exemption certificate (issued from DPD). The contractor should not charge sales tax on machinery and equipment sold to DPD.

17. Reference Section 3.7.2; Add Section:

**3.7.2.1** Compliance with the above shall not preclude the establishment of and compliance with non-conflicting higher standards as may be specified or indicated elsewhere in the Contract Documents.

18. Reference Section 3.7.4; Add Sections:

**3.7.4.1** The conditions described in the first sentence include any conditions which the Contractor will consider as the basis for a claim for extra compensation and include but are not limited to materials containing asbestos, polychlorinated biphenyl (PCB), or other hazardous materials.

**3.7.4.2** By failing to give notice within the time allotted above, the Contractor waives all rights for extra compensation of any kind arising out of the concealed or unknown conditions.

19. Reference Section 3.7.5; Modify Section by adding the underlined words, so that the section now reads as follows:

**3.7.5** If, in the course of the Work, the Contractor knowingly encounters and recognizes human remains, burial markers, archeological sites or previously undelineated wetlands not indicated in the Contract Documents, the Contractor shall immediately suspend any operations that would affect them and shall notify the Owner and Architect. Upon receipt of such notice, the Owner shall promptly take any action necessary to obtain governmental authorization required to resume the operations. The Contractor shall continue to suspend such operations until otherwise instructed by the Owner but shall continue with all other operations that do not affect those remains or features. Requests for adjustments in the Contract Sum and Contract Time arising from the existence or good faith belief of such existence of such remains or features may be made as provided in Article 15.

20. Reference Section 3.7; Add Sections:

**3.7.6** See Section 10.7 of these Supplementary Conditions for Stormwater Pollution Prevention Plan and Permit requirements.

**3.7.7** The Contractor must recognize mandatory standards and policies relating to energy efficiency contained in the State Energy Conservation Plan issued in compliance with the Energy Policy and Conservation Act (PL 94-163).

21. Reference Section 3.9.1; Modify the first sentence by adding the underlined words, so that the first sentence now reads as follows:

**3.9.1** The Contractor shall employ a competent superintendent and necessary assistants who shall be in attendance at the Project site during performance of the Work (including work performed by subcontractors).

22. Reference Section 3.9; Add Section:

**3.9.4** The superintendent shall organize and coordinate scheduling of the Work and shall review and coordinate Work between the trades/Subcontractors.

23. Reference Section 3.10.2; Delete the last sentence.

24. Reference Section 3.13; Add Sections:

**3.13.1** The Contractor shall provide any additional facilities or areas beyond those areas permitted at the site as required for construction operations or storage of materials at no additional cost to the Owner.

**3.13.2** The Contractor shall take all necessary precautions to prevent damage to pipes, conduits, and other underground structures. The Contractor shall protect from disturbance or damage all monuments and property marks until an authorized agent of the Owner has witnessed or otherwise referenced their location and the Contractor shall not remove such marks or monuments until directed.

25. Reference Section 3.15; Delete Sections 3.15.1 and 3.15.2 and substitute the following:

**3.15.1** The Contractor shall at all times keep the site of the Work and adjacent premises as free from materials, debris, rubbish and trash as practical and shall remove same from any portion of the site and adjacent premises if, in the opinion of the Owner, such materials, debris, rubbish or trash constitute a nuisance or are in any way objectionable to the public. The Contractor shall be responsible for the timely removal of dirt accumulations or any other debris on access roads and public streets and highways resulting from the Contractor's operations.

**3.15.2** At the completion of the Work, the Contractor shall remove all materials, implements, staging, piling falsework, debris and rubbish connected with or caused by operations for such Work immediately upon completion of that Work and shall leave the premises in perfect condition insofar as affected by the Work under the Contract. Fires for disposal of rubbish on the site are prohibited.

**3.15.3** If the Contractor should fail to clean up the premises as provided in the Contract Documents, the Owner, after giving the Contractor forty-eight hours notice, may do so and Owner shall be entitled to reimbursement from the Contractor.

26. Reference Section 3.16; Add Section:

**3.16.2** The Contractor shall furnish the Owner and Architect all necessary assistance to facilitate inspections throughout the process of manufacture or construction, or for the examination of any materials entering into the Work, or for any other purpose required in the discharge of the Owner or Architect's duties.

27. Reference Section 3.18; Add Sections:

**3.18.3** The obligations of the Contractor under Section 3.18 shall not extend to the liability of the Owner and its consultants, its agents or employees arising out of: (1) the preparation or approval of maps, Drawings, opinions, reports, surveys, Contract Change Orders, designs or specifications, or (2) the giving of or failure to give directions or instructions by the Owner, its agents or employees providing such giving or failure to give directions or instructions is the primary cause of the injury or damage.

**3.18.4** The Contract Documents define claims, damage, losses, and expenses as, but do not limit them to: (1) injury or damage consequent upon the failure of or use or misuse by the Contractor, its Subcontractors, agents, servants, or employees, of any hoist, rigging, blocking, scaffolding, or any and all other kinds of items of equipment furnished or loaned by the Owner; (2) all attorneys' fees and costs incurred in defense of the claim or in bringing an action to enforce the provision of this indemnity or any other indemnity contained in the Contract Documents; and (3) all costs, expenses, lost time, opportunity costs, etc., incurred by the party being indemnified or its employees, agents, or consultants.

**3.18.5** The indemnification obligations of the Contractor under this Contract does not extend to the liability of the Owner, any Owner's consultants, or their agents, consultants, or employees arising out of their own negligence.

**3.18.6** If trade unions perform the Work or any portion of the Work, the Contractor shall make all necessary arrangements to reconcile without delay, damage or cost to the Owner and its consultants, any conflict between the Contract Documents and any agreements or regulations of any kind at any time in force among members or councils which regulate or distinguish what activities are not included in the work of any particular trade. If this affects the progress of the Work in finishing or installing any items or materials or equipment required under the Contract Documents because of the conflict involving any such agreement or regulation, the Owner or its consultants may require that the Contractor provide other material or equipment of equal kind and quality at no additional cost to the Owner.

#### **REFERENCE ARTICLE 4 - ADMINISTRATION OF THE CONTRACT**

28. Reference Section 4.2.2; Add Section:

**4.2.2.1** The presence or absence of an Owner's Representative or the Architect on the site for the purpose of inspection shall not relieve the Contractor from any obligations to perform the Work in accordance with the requirements of the Contract Documents.

29. Reference Section 4.2.6:

The Owner will also have the authority to reject Work as provided in Section 2.1.1.3 of these Supplementary Conditions.

#### **REFERENCE ARTICLE 5 - SUBCONTRACTORS**

30. Reference Section 5.3; Add Sections:

**5.3.1** Such agreements between the Contractor and each Subcontractor (and where appropriate between Subcontractors and Sub-subcontractors) shall also contain provisions that:

**.1** require submission to the Contractor of applications for payment under each subcontract to which the Contractor is a party, in reasonable time to enable the Contractor to apply for payment in accordance with Article 9;

**.2** require that all Claims for additional costs, extensions of time, damages for delays or other claims with respect to subcontracted portions of the Work shall be submitted to the Contractor (via any Subcontractor or Sub-subcontractor where appropriate) in sufficient time so that the Contractor may comply in the manner provided in the Contract Documents for like Claims by the Contractor against the Owner;

**.3** waive all rights the contracting parties may have against one another for damages caused by fire or other perils covered by property insurance described in Article 11, except such rights as they may have to the proceeds of such insurance held by the Owner as trustee;

**.4** inform Subcontractors of their rights under Chapter 573, Code of Iowa; and

**.5** obligate each Subcontractor to consent specifically to the provisions of Section 5.2.

**5.3.2** In accordance with Section 573.12 of the Code of Iowa, the Contractor will make prompt payments to Subcontractors for satisfactory performance of the Work.

#### **REFERENCE ARTICLE 6 - CONSTRUCTION BY OWNER OR BY SEPARATE CONTRACTORS**

31. Reference Section 6.1.3; Add Section:

**6.1.3.1** The Contractor shall be responsible for furnishing accurate information for and participating in the development of a realistic Project schedule.

32. Reference Section 6.2.4; Add Section:

**6.2.4.1** Should the Contractor cause damage to the Work or property of any separate contractor or be the cause of delay or failure to perform, the Contractor shall upon due notice promptly attempt to settle with such other contractor by agreement, or otherwise to resolve the dispute. If such separate contractor sues or initiates an arbitration proceeding against the Owner on account of any damage alleged to have been caused by the Contractor, the Owner shall notify the Contractor who shall defend such proceedings, and if any judgment or award against the Owner arises therefrom the contractor shall pay or satisfy it and shall reimburse the Owner for all attorneys' fees and court or arbitration costs which the Owner has incurred.

33. Reference Section 6.2; Add Sections:

**6.2.6** Claims and other disputes and matters in question between the Contractor and separate contractors are subject to the provisions of Section 15.3 and 15.4 provided the separate contractor has reciprocal obligations.

**6.2.7** The Contractor shall execute all Work in such manner and in such order, or procedure, as will permit the commencement and carrying on of the Work of the Owner and of separate contractors with the least interference possible using a reasonable procedure whenever it is necessary or desirable to execute such work either simultaneously with the Work under Contract, or otherwise. To this end the Contractor shall cooperate and assist the Owner and separate contractors in every reasonable way, and shall interfere as little as possible with their Work. The Contractor shall move, free of charge, the Contractor's plant equipment and materials or any part of same whenever the Owner considers it reasonable and necessary for the work of the Owner or separate contractors.

## **REFERENCE ARTICLE 7 - CHANGES IN THE WORK**

34. Reference Section 7.1.2; Add Section:

**7.1.2.1** The Owner's Construction Manager shall also have authority to act alone in issuing an order for a minor change in the Work as provided in Section 2.1.1.5 of these Supplementary Conditions.

35. Reference Section 7.1; Add Sections:

**7.1.4** The pricing of changes in the Work which result in an adjustment to the Contract Sum (excepting Alternate Bids, see Section 7.1.5) shall be limited to the Contractor's direct expenses as defined in Sections 7.3.7.1 through 7.3.7.5, plus the applicable percentage of overhead and profit subject to the following limits:

- .1** Fifteen percent (15%) maximum mark-up for Work directly performed by employees of the Contractor, Subcontractor, or Sub-subcontractor.
- .2** Five percent (5%) maximum Contractor's mark-up for Work performed or passed through by a Subcontractor and passed through to the Owner by the Contractor.
- .3** Five percent (5%) maximum Subcontractor's mark-up for Work performed by a Sub-subcontractor and passed through to the Owner by the Subcontractor and Contractor.
- .4** The maximum allowable mark-up is twenty-five percent (25%) passed through to the Owner by the Contractor under any circumstances.

**7.1.5** The pricing of changes in the Work that add work already bid as an Alternate which have expired, shall adhere to the following guidelines:

- .1** Direct material and labor costs associated with the alternate shall be enumerated in the Request for Change and highlight the original cost, the current cost, the difference, and the reason for the difference.

.2 The Contractor may add up to 15% mark-up for the difference between the original direct material and labor costs and the current material and labor costs only.

.3 The contractor may add to the total a 2% mark-up for increased bonds and insurance costs.

**7.1.6** Prices shall include all subcontracts and shall be itemized as follows:

.1 Labor costs shall indicate trade, hourly rate, man hours, and total costs.

.2 Materials, supplies and equipment costs shall indicate unit cost, quantity, and total cost for each item.

.3 Machinery and equipment costs shall indicate machinery or equipment type, number of each, hourly rate, and total cost for each item.

**7.1.7** The Contractor shall be allowed no additional compensation for any costs, fees or expenses incurred in performing services already required by the Contract for Construction, and shall not be entitled to additional reimbursement for its home office, other non-job site or indirect overhead expenses, or tools necessary for construction.

**7.1.8** Any request for time extension as a result of the Change in Work must be justified and presented in adequate detail showing that the proposed change will delay the final Contract completion date.

**7.1.9** Contractor shall not apply sales, consumer, use and similar tax charges incurred for material purchases in charges toward the overhead and profit percentage.

**7.1.10** The following definitions shall be used in establishing process for Changes in Work:

.1 Direct expense is the Contractor's actual cost of any item that is easily defined as a required item for the completion of his Contract obligation.

.2 Overhead is a business expense created by the Project but not necessarily a direct part of that portion of the Work involved.

.3 Profit is the compensation accruing to the Contractor for the assumption of risk in a business enterprise.

36. Reference Section 7.2.1; Delete Section and substitute the following:

**7.2.1** A Change Order is a written instrument prepared by the Owner and signed by the Owner and Contractor stating their agreement upon all of the following:

37. Reference Section 7.4; Add Section:

**7.4.1** The Owner's Construction Manager shall also have authority to issue an order for a minor change in the Work as provided in Section 2.1.1.5 of these Supplementary Conditions.

## **REFERENCE ARTICLE 8 - TIME**

38. Reference Section 8.2; Add Section:

**8.2.4** In the event the Contractor fails to maintain the schedule, including accepted revisions, the Contractor shall promptly, at no additional cost to the Owner, increase work forces, increase hours, and/or initiate revisions to means and methods of construction as required to make up lost time and complete the Work in accordance with the construction schedule.

## REFERENCE ARTICLE 9 - PAYMENTS AND COMPLETION

39. Reference Section 9.3.1; Add the following sentence to Section 9.3.1:

The Form of Application for Payment shall be a current authorized edition of AIA Document G702 – 1992, Application and Certificate for Payment, supported by a current authorized edition of AIA Document G703 – 1992, Continuation Sheet. One copy of each Application for Payment shall be submitted electronically in .pdf format via email to the Architect or, if applicable, uploaded to the project website for each progress payment.

40. Reference Section 9.3.1; Add Sections:

**9.3.1.3** Applications for Payment shall be submitted once a month.

**9.3.1.4** The Owner will withhold until final payment, retainage in an amount consistent with the provisions of Section 573.12, 573.13, and 573.14 of the Code of Iowa.

41. Reference Section 9.5.1; Add Section:

**9.5.1.8** third party claims filed pursuant to Chapter 573 of the Iowa Code.

42. Reference Section 9.5.3; Delete section in its entirety.

43. Reference Section 9.6.4; Delete the first two sentences.

44. Reference Section 9.8.5; Delete the second sentence and substitute the following:

Upon such acceptance and consent of surety, if any, the Owner shall make payment sufficient to increase the total payments to ninety-five percent (95%) of the Contract Sum, less such amounts as the Architect shall determine for incomplete Work and unsettled claims.

45. Reference Section 9.10.1; Add Section:

**9.10.1.1** Issuance of a letter of Final Acceptance by the Owner shall establish the commencement of the thirty-day period during which the Owner retains final payment of the balance due under the Contract under Iowa law and per provisions of this Agreement. If at the end of such thirty-day period, claims are on file with the Owner, the Owner will withhold a sum equal to double the total amount of claims on file or five percent (5%) of the Contract price, whichever is less, until such claims are released or otherwise adjudicated. The Owner will issue a letter of Final Acceptance to the Contractor upon receipt of the Final Certificate for Payment from the Architect.

46. Reference Section 9.10.2; Add Sections:

**9.10.2.1** The Owner will not make final payment until the Contractor has performed final cleanup in accordance with Section 3.15

**9.10.2.2** See Division 1 – General Requirements for items to be submitted with the final Application for Payment. The Architect will not issue a final Certificate of Payment until all items indicated are submitted:

## REFERENCE ARTICLE 10 - PROTECTION OF PERSONS AND PROPERTY

47. Reference Section 10.1; Add Sections:

**10.1.1** Accident Prevention: The safety provisions of all applicable laws, building and construction codes shall be observed. Machinery, equipment and all hazards shall be guarded or eliminated in accordance with the safety provisions of the latest edition of the Manual of Accident Prevention in Construction, published by the Associated General Contractors of America, to the extent that such provisions are not in contravention of applicable laws.

**10.1.2** The Work shall be governed by applicable provisions of the general law, including the latest amendments of the following:

1. William-Steiger Occupational Safety & Health Act of 1970, Public Law 91-596.
2. Part 1910 – Occupational Safety & Health Standards, Chapter XVII of Title 29, Code of Federal Regulations.
3. Part 1518 –Safety and Health Regulations for Construction, Chapter XIII of Title 29, Code of Federal Regulations.

**10.1.3** The Contractor is responsible for conducting a safety program and/or precautions on the project site that assures work on the site is conducted in accordance with all guidelines and requirements of OSHA and other applicable laws, building and construction codes, and sound construction practice. The Contractor shall prepare, implement and enforce a project safety plan for the purpose of maintaining a site where work is conducted in a safe manner. A copy of the safety plan shall be maintained on the site at all times.

48. Reference Section 10.2; Add Sections:

**10.2.9** The Contractor must comply with provisions of Section 88.6(1) of the Code of Iowa pertaining to Occupational Safety and Health Administration (OSHA) entrance and inspections which states that the State Labor Commissioner or State Labor Commissioner's representative upon presenting appropriate credentials to the Owner, operator, or agent in charge, is authorized:

- .1 To enter without delay and at reasonable times a factory, plant, establishment, construction site, or other area, work place, or environment where work is performed by an employee of an employer; and
- .2 To inspect and investigate during regular working hours and other reasonable times, and within reasonable limits, and within a reasonable manner, any such place of employment and all pertinent conditions, structures, machines, apparatus, devices, equipment, and materials therein, and to question privately any such owner, operator, agent, or employer.

49. Reference Section 10.3.1; Add Section:

**10.3.1.1** The Contractor is not required pursuant to Article 7 to perform without consent any work relating to asbestos or polychlorinated biphenyl (PCB).

50. Reference Section 10.3; Add Sections:

**10.3.7** Lamps, bulbs and ballasts indicated to be removed by the Contractor, and not indicated to be reused on the project, can be salvaged by the Owner or the Contractor. If not salvaged, the Contractor shall pay any required fees and ensure proper disposal as universal waste (ballasts labeled as "PCB Free" can be disposed as solid waste).

**10.3.8** All self-luminous or photo-luminescent (radioactive tritium) exit signs shown to be removed by the Contractor shall be removed without damage and turned over to the Owner for disposal.

**10.3.9** The Contractor shall not use asbestos-containing products or materials. Requests for exceptions shall be forwarded by the Contractor to the Owner for approval by the Environmental Branch of the Directorate of Installation Management.

**10.3.10** The Contractor shall not knowingly remove, damage or disturb asbestos-containing materials unless required by the project's plans and specifications. Any asbestos abatement identified in the Contract Documents as the responsibility of the Contractor must be performed by properly trained and certified personnel in accordance with all environmental and worker safety regulations.

51. Reference Section 10.3.1; Add Section:

**10.3.1.1** The Contractor is not required pursuant to Article 7 to perform without consent any work relating to asbestos or polychlorinated biphenyl (PCB).

52. Reference Article 10; Add Sections:

**10.5 IOWA HAZARDOUS CHEMICAL RISKS RIGHT TO KNOW LAW:**

**10.5.1** Owner's Responsibility. Upon request, the Owner will provide to the Contractor a list of known hazardous chemicals within the Project Site to which their employees may be exposed and suggestions for appropriate protective measures.

**10.5.2** Contractor's Responsibility. Contractor must inform his/her employees of the Iowa Hazardous Chemical Risks Right to Know Law.

**10.5.3** The Contractor must provide to the Owner a list of known hazardous chemicals that they anticipate using on site as well as other pertinent information relating to employee protection. Contractor's Material Safety Data Sheets (MSDS) must be available to the Owner upon request.

**10.7 POLLUTION PREVENTION PROCEDURES**

**10.7.1** The following pollution prevention procedures shall apply to all Contractors working on Iowa Army National Guard projects:

.1 Spill Prevention and Response: The Contractor shall take adequate precautions to prevent spills of hazardous chemicals, oils, and fuels. The Contractor shall have procedures in place to immediately clean up all spills that could occur on the job site or during transportation to and from the job site. Expenses incurred in the spill cleanup shall belong to the Contractor. Specifically:

- .a When liquid hazardous chemicals, oils, or fuels are stored on the job site, the contractor shall provide secondary containment, for containers with 55 gallon capacity or greater, equal to or greater than 110% of the volume of the single largest container.
- .b The Contractor shall notify the Iowa Army National Guard Environmental Branch in the event of a spill of chemicals, oils or fuels. The Contractor must have sufficient resources on the work site to clean up a spill. All workers at the site shall know whom the Contractor point of contact is and what they are to do in the event of a spill.
- .c The point of contact for the Environmental Branch is:

Shannan Garretson, Environmental Program Manager  
Building 3535 (B-61), Camp Dodge  
7105 NW 70th Avenue  
Johnston, Iowa 50131-1824  
Phone: (515) 252-4557  
Non-duty Hours Cell Phone (515) 249-5847

.d The Contractor must notify the Iowa Department of Natural Resources and the local sheriff's office of a hazardous substance spill that meets the definition of a "hazardous condition" as defined in the Iowa Administrative Code. Iowa law requires reporting as soon as possible but not later than six hours. Spills meeting the criteria of a "reportable spill" will also require notification of the National Response Center.

**10.7.4** Storm Water Pollution Prevention Plans and Permits:

- .1 A Storm Water Pollution Prevention Plan and a discharge permit will be required for construction activities resulting in one acre or more soil disturbance.
- .2 The Iowa Army National Guard's Director of Installation Management Environmental Branch shall obtain the permit.

.3 The General Contractor, and each subcontractor that has a responsibility described in the plan, will be a co-permittee with the Owner. The General Contractor shall be responsible for compliance with and fulfilling all requirements of the NPDES General Permit Number 2, including the Storm Water Pollution Prevention Plan.

.4 The initial Storm Water Pollution Prevention Plan and Notice of Intent will be provided by the Owner. These and the General Contractor's project inspection diary must be kept on-site and presented to federal, state and local environmental regulatory personnel, and the Owner, when requested.

.5 The General Contractor will provide an individual experienced with storm water pollution prevention plans and techniques to conduct weekly and rainfall inspections of the construction site and review the project's Storm Water Pollution Prevention Plan at the time of each inspection. The General Contractor is responsible for maintaining a copy of each inspection report. The General Contractor will review the weekly and rainfall storm water inspection reports and address any deficiencies within seven days. Deficiencies may also be identified by the Owner at any time. Corrective actions may include installation of additional erosion controls and/or maintenance of existing controls.

.6 If the Contractor should fail to conduct inspections, create reports, maintain the project inspection diary, and address deficiencies, the Owner, after giving the Contractor forty-eight hours notice, may do so and the Owner shall be entitled to reimbursement from the Contractor.

The General Contractor shall be responsible for continuing compliance with all SWPPP requirements until final stabilization is achieved regardless of whether Substantial Completion has been granted or the Owner has occupied any portion of the site or facility. Such practices shall include, but not be limited to, inspections and reports and maintenance of erosion control measures as described above.

.7 The Owner will file a Notice of Discontinuation upon final stabilization of the disturbed area. The General Contractor will provide the original project inspection diary and the marked-up copy of the Storm Water Pollution Prevention Plan to the Owner at the completion of the project.

#### **10.7.5 Removal of Regulated Wastes:**

.1 At the completion of the construction project, the Contractor will be required to remove all waste and unused hazardous chemicals including, but not limited to: solvents, adhesives, paints, and fuels. Said materials shall be properly identified, containerized and, if no longer usable, disposed at the Contractor's expense.

### **REFERENCE ARTICLE 11- INSURANCE AND BONDS**

53. Reference Section 11.1; Add Sections:

**11.1.5 Insurance:** No prime Contractor shall commence work under this contract until he/she has obtained all insurance required under this Section and until such insurance has been approved by the Owner, nor his/her sub-contractor until all similar insurance required of the subcontractor has been obtained and approved. No policy of insurance which is cancelable on less than 30 days written notice to the insured is satisfactory to the Owner's Representative.

**11.1.6 Compensation and Employer's Liability Insurance:** The Contractor shall take out and maintain during the life of this Contract the Statutory Workmen's Compensation and Employer's Liability Insurance for all of his/her employees to be engaged in work on the project under this Contract, and in case any work is sublet, the Contractor shall require the subcontractor similarly to provide Workmen's Compensation and Employer's Liability Insurance for all of the latter's employees to be engaged in such work.

**11.1.7 Bodily Injury Liability and Property Damage Liability Insurance:** Each prime Contractor shall take out and maintain during the life of the Contract such Bodily Injury Liability and Property

Damage Liability Insurance as shall protect him/her and any subcontractor performing work covered by the Contract from claims for damage for personal injury, including accidental death, as well as from claims for property damage, which may arise from operations under this Contract, whether such operations be by him/herself or by any subcontractor or by anyone directly or indirectly employed by either of them and the amount of such insurance shall be no less than:

.1 Public Liability Insurance, in an amount no less than Five Hundred Thousand Dollars (\$500,000.00), for injuries including wrongful death to any one person, and subject to the same limit for each person in any amount not less than One Million Dollars (\$1,000,000.00) on account of one accident.

.2 Property Damage Insurance, in a minimum amount of One Million Dollars (\$1,000,000.00) for damages on account of all accidents other than automobile property damage accidents.

.3 Motor Vehicle Bodily Injury Liability in a minimum amount of Five Hundred Thousand Dollars (\$500,000.00), per occupant and One Million Dollars (\$1,000,000.00) per accident on account of any one automobile accident.”

**11.1.8 Insurance Certificates:** Each prime Contractor shall furnish certificates of insurance listed above to the Owner and they shall also be subject to the Owner’s approval for adequacy of protection.”

**11.1.9 Owner’s Protective Liability Insurance:** Each prime Contractor shall take out and furnish to the Owner and maintain during the life of this Contract, complete Owner’s Protective Liability Insurance in amounts as specified in Section 11.1.7 above, for Bodily Injury Liability Insurance and for Property Damage Liability Insurance.”

**11.1.10** All insurance coverage must be provided by insurance companies having policy holder ratings no lower than “A” and financial ratings not lower than “XII” in the Best’s Insurance Guide, latest edition in effect as of the date of the Contract.

**11.1.11** The required limits of liability may be met by using a split-limit or a combined single limit basis. However, the total limit of liability cannot be less than that stated in the requirements.

54. Reference Section 11.3; The Contractor is directed to purchase and maintain Builder’s Risk insurance. Modify Section 11.3 and subsections as follows:

a. Modify the first sentence of Section 11.3.1 as follows: Delete “Unless otherwise provided, the Owner” and substitute “The Contractor”. Add the following sentence:

If the Owner is damaged by the failure of the Contractor to purchase and maintain such insurance without so notifying the Owner in writing, then the Contractor shall bear all reasonable costs attributable thereto.

b. Delete Section 11.3.1.2.

c. Modify Section 11.3.1.3 by substituting “Contractor” for “Owner”.

d. Modify Section 11.3.2 by substituting “Contractor” for “Owner” at the first reference to “Owner”.

e. Delete Section 11.3.4.

f. Modify Section 11.3.6 by making the following substitutions: (1) in the first sentence, substitute “Contractor” for “Owner” and “Owner” for “Contractor”, and (2) substitute “Owner” for “Contractor” at the end of the last sentence.

g. Modify Section 11.3.7 by substituting “Contractor” for “Owner” at the end of the first sentence.

- h. Modify Section 11.3.8 by substituting "Contractor" for "Owner"; each time the latter word appears except that at the first reference to "Owner" in the first sentence, the word "this" should be substituted for "the Owner's".
- i. Modify Section 11.3.9 by substituting "Contractor" for "Owner" each time the latter word appears except at the third occurrence in the third sentence and in the last sentence.
- j. Modify Section 11.3.10 by substituting "Contractor" for "Owner" each time the latter word appears except at the third occurrence in the first sentence and in the first occurrence in the last sentence.

55. Reference Section 11.4; Delete Section 11.4.1 and substitute the following:

**11.4.1** The Contractor shall furnish bonds on the date of execution of the Contract covering faithful performance of the Contract and payment of obligations arising thereunder as stipulated in the Bidding Requirements or specifically required in the Contract Documents. The bond shall be on the form prescribed in the Bidding Requirements and the cost thereof shall be included in the Contract Sum. The amount of each bond shall be equal to one hundred percent (100%) of the Contract Sum.

.1 The Contractor shall deliver the required bonds to the Owner simultaneously with the delivery of the executed Contract.

.2 The Contractor shall require the attorney-in-fact who executes the required bonds on behalf of the surety to affix thereto a certified and current copy of the power of attorney.

56. Reference Section 11.4; Add Section:

**11.4.3** If any surety upon any bond furnished in connection with this Contract becomes unacceptable to the State, or if any such surety fails to furnish reports as to their financial condition from time to time as additional security as may be required from time to time to protect the interests of the State or of persons supplying labor or materials in the prosecution of the Work contemplated by the Contract, the State may terminate the Contract.

## REFERENCE ARTICLE 12- UNCOVERING AND CORRECTION OF WORK

57. Reference Section 12.1.2; Add Section:

**12.1.2.1** If the condition noted in Section 12.1.2 above was caused by a separate contractor, the Contractor shall first attempt to reach settlement with the separate contractor as provided in Article 6.

58. Reference Section 12.2.2; Add the following sentence to Section 12.2.2.1:

The obligations of the Contractor under this Section shall survive termination of the Contract.

59. Reference Section 12.2.2; Add Sections:

**12.2.2.4** Upon request by the Owner and prior to the expiration of one year from the date of Substantial Completion, the Architect will conduct and the Contractor shall attend a meeting with the Owner to review the facility operations and performance.

**12.2.2.5** If it becomes necessary for the Contractor to replace an item after Substantial Completion under the terms of the Contract Documents, the warranty period of time for the replacement shall begin with the date of the completion of the replacement.

**12.2.2.6** If the Contractor does not proceed with correction of such nonconforming Work within a reasonable time fixed by written notice, the Owner may remove it and store the salvageable materials or equipment at the Contractor's expense. If the Contractor does not pay costs of such removal and storage within ten (10) days after written notice, the Owner may, upon ten (10) additional days written notice, sell such materials and equipment and account for the proceeds

thereof, after deducting costs and damages that should have been borne by the Contractor, including compensation of the Owner's services and expenses made necessary by this action. If such proceeds of sale do not cover costs which the Contractor should have borne, the Contract Sum will be reduced by the deficiency. If payments then or thereafter due the Contractor are not sufficient to cover such amount, the Contractor must pay the difference to the Owner.

## **REFERENCE ARTICLE 13 - MISCELLANEOUS PROVISIONS**

60. Reference Section 13.1; Delete the words following "...where the Project is located".

61. Reference Section 13.5.1; Add Section:

**13.5.1.1** Special Inspections, if required for this Project by the Contract Documents, will be procured and paid for by the Owner. The duties and responsibilities of the Contractor in regard to Special Inspections shall be as defined in the General Requirements of the Contract Documents. Special Inspections, if required, are separate and distinct from other Tests and Inspections required by the Contract Documents which shall be procured and paid for by the Contractor under the provisions of Section 13.5.

62. Reference Section 13.6; Delete Section 13.6 and substitute the following:

**13.6 INTEREST:** Payments due and unpaid under the Contract Documents shall bear interest in accordance with Section 573.12 and 573.14 of the Code of Iowa.

63. Reference Section 13.7; Delete Section in its entirety and substitute the following:

### **13.7 COMMENCEMENT OF STATUTORY LIMITATION PERIOD**

**13.7.1** As between the Owner and Contractor:

.1 Before Substantial Completion. As to acts or failures to act occurring prior to the relevant date of Substantial Completion, any applicable statute of limitations shall commence to run and any alleged cause of action shall be deemed to have accrued in any and all events not later than such date of Substantial Completion;

.2 Between Substantial Completion and Final Certificate for Payment. As to acts or failures to act occurring subsequent to the relevant date of Substantial Completion and prior to issuance of the final Certificate for Payment, any applicable statute of limitations shall commence to run and any alleged cause of action shall be deemed to have accrued in any and all events not later than the date of issuance of the final Certificate for Payment; and

.3 After Final Certificate for Payment. As to acts or failures to act occurring after the relevant date of issuance of the final Certificate for Payment, any applicable statute of limitations shall commence to run and any alleged cause of action shall be deemed to have accrued in any and all events not later than the date of any act or failure to act by the Contractor pursuant to any Warranty provided under Section 3.5, the date of any correction of the Work or failure to correct the Work by the Contractor under Section 12.2, or the date of actual commission of any other act or failure to perform any duty or obligation by the Contractor or Owner, whichever occurs last.

64. Reference Article 13; Add Sections:

### **13.8 ENERGY REBATE FORM(S)**

**13.8.1** The Contractor shall obtain Energy Rebate Forms from all applicable utility providers for the Work. The Contractor shall partially complete and sign the rebate forms; providing the information identified below. The Contractor shall submit the rebate forms with the Application for Final Payment as directed in Article 9.

Lighting:

1. List brand name & model number of fixture(s).

2. List number of fixtures installed.
3. Provide a copy of invoice(s) from supplier to Contractor.
4. Provide Contractor signature.
5. Note: Owner will provide remaining information such as account number, age and size of facility, hours of operation, etc.

HVAC:

1. List manufacturer, size, efficiency, model number, serial number, and installed cost of unit(s). Include manufacturer, model, and installed cost of programmable thermostats.
2. Provide a copy of invoice(s) from the Supplier to Contractor.
3. Provide Contractor signature.
4. Note: Owner will provide remaining information such as account number, age and size of facility, hours of operation, etc.

Motors:

1. List variable speed drive information including manufacturer, model number, serial number, rating, efficiency, equipment cost, and installation cost.
2. List NEMA Premium motor information including manufacturer, model number, serial number, HP rating, efficiency, motor speed, and motor and installation cost.
3. Provide a copy of invoice(s) from the Supplier to Contractor.
4. Provide Contractor signature.
5. Note: Owner will provide remaining information such as account number, age and size of facility, hours of operation, etc.

**13.9 MANUFACTURER'S DIRECTIONS**

**13.9.1** Manufactured articles, materials, and equipment shall be applied, installed, connected, erected, used, cleaned, and conditioned as directed by the manufacturer unless herein specified to the contrary.

**13.9.2** Any additional costs incurred as a result of this requirement shall be borne by the Contractor.

**13.10 CODE OF FAIR PRACTICES**

**13.10.1** During the performance of this Contract, the Contractor agrees as follows:

.1 The Contractor will not discriminate against any employee or applicant for employment because of race, creed, color, religion, national origin, sex, age, or physical or mental disability, or status as a Vietnam-era disabled veteran. The Contractor will take affirmative action to ensure that applicants are employed and that employees are treated during employment without regard to their race, creed, color, religion, national origin, sex, age, physical or mental disability, or status as a Vietnam-era disabled veteran except where it relates to a bona fide occupational qualification. Such action includes but is not limited to the following: employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or terminations, rates of pay or other forms of compensation, and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices provided by the Owner setting forth provisions of the nondiscrimination clause.

.2 The Contractor will in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, creed, color, religion, national origin, sex, age, physical or mental disability, or status as a Vietnam-era disabled veteran except where it relates to a bona fide occupational qualification.

.3 The Contractor will send to each labor union or representative of workers with which it has a collective bargaining agreement or other contract or understanding a notice advising the labor union or workers' representative of the Contractor's commitments under this

nondiscrimination clause and post copies of the notice in conspicuous places available to employees and applicants for employment.

.4 The Contractor will comply with all relevant provisions of the Iowa Civil Rights Act of 1965, as amended by Iowa Executive order #15 of 1973, as amended by Iowa Executive Order #34 of 1988; Federal Executive Order 11246 of 1965, as amended by Federal Executive Order 11375 of 1967; the Equal Employment Opportunity Act of 1972; and all provisions relevant to fair application of the rules and regulations of the Owner. The Contractor will furnish all information and reports requested by the Owner or required by or pursuant to the rules and regulations thereof and will also permit access to its payroll and employment records by the Owner or representatives for purposes of investigation to ascertain compliance with such rules, regulations, or requests, or with this nondiscrimination clause.

.5 In the event of the Contractor's noncompliance with the nondiscrimination clauses of this Contract or with any of the aforesaid rules, regulations, or requests, this Contract may be canceled, terminated, or suspended in whole or in part and the Contractor may be declared ineligible for further contracts with the Owner. In addition, the Owner may take such further action, and such other sanctions may be imposed and remedies invoked, as provided by the Iowa Civil Rights Act of 1965 as amended, Chapter 601A, Code of Iowa, as heretofore and hereafter amended, or by the rules and regulations of the Owner or as otherwise provided by law.

.6 The Contractor will include the provisions of this section of Article 13 hereof in every subcontract and purchase order unless specifically exempt by approval of the Owner, in accordance with the rules and regulations, so that such provisions will be binding on each Subcontractor and vendor. The Contractor will take such action with respect to any Subcontractor or purchase order as the Owner or the authorized representative thereof may direct as a means of enforcing such provisions including sanctions for noncompliance; provided however, that in the event the Contractor becomes involved in, or is threatened with, litigation by a Subcontractor or vendor as a result of such direction by the Owner, the Contractor may request the State of Iowa to enter into such litigation to protect the interests of the State of Iowa.

## **REFERENCE ARTICLE 14 - TERMINATION OR SUSPENSION OF THE CONTRACT**

65. Reference Section 14.3; Add Section:

**14.3.3** Adjustments made for increases in the cost may have a mutually agreed fixed or percentage fee.

66. Reference Section 14.4; Delete Section 14.4.3 and substitute the following:

**14.4.3** In case of such termination for the Owner's convenience, the Contractor shall be entitled to receive from the Owner, payment for Work executed and for proven loss with respect to material, equipment, tools, and construction equipment and machinery, including reasonable overhead and profit. The Contractor shall transfer title to Owner and deliver in the time, place and manner as directed by the Owner, all fabricated and unfabricated parts, Work-in-process, completed Work, supplies and other materials produced as part of, or acquired in connection with the discontinued Work, and other property which would have been required to be furnished to Owner if the Contract had been completed.

67. Reference Article 14; Add Section:

### **14.5 MISCELLANEOUS TERMINATION**

**14.5.1** Funding: If the Bidding Requirements indicate Federal funding for this project is received from the Federal Government prior to award of the Contract and such Federal funding is not received within the sixty (60) day bid guarantee after the date of receiving bids, all rights and obligations to enter into a Contract are considered null and void.

**14.5.2** Provisions of law as contained in Chapter 573A of the Code of Iowa, current edition (which pertains to termination of contracts for construction of public improvements when Work thereon is stopped because of a national emergency), applies to and is a part of this Contract and binding upon all parties hereto, including Subcontractors and sureties.

## **REFERENCE ARTICLE 15 – CLAIMS AND DISPUTES**

68. Reference Section 15.1.5.1; Add Section:

**15.1.5.1.a** The Contractor shall not be entitled to an increase in the Contract Sum as a result of any delays in the progress of the Work. The Contractor's sole remedy for delay is an extension of time, extended by Change Order for such reasonable time as proposed by the Contractor and approved by the Owner.

END OF DOCUMENT 00 73 00

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## SECTION 01 10 00

### SUMMARY

#### PART 1 GENERAL

##### 1.01 PROJECT

- A. Project Name: Camp Dodge A-1 Penthouse Repairs
- B. Owner's Name: Iowa Army National Guard.
- C. Architect's Name: INVISION Architecture

##### 1.02 DESCRIPTION OF WORK

- A. Scope of demolition and removal work is shown on drawings and specified in Section 02 41 00.
- B. Scope of new construction work is shown on drawings and specified in the project manual.
- C. Services (Including but not limited to Plumbing, HVAC, Electrical Power and Lighting, Fire Protection, Telecommunications, and Security): Alter existing system and add new construction, keeping existing in operation.
- D. Contractor is required to remove and store the following prior to start of work, for later reinstallation by Contractor:
  - 1. Items indicated in Demolition plans.

##### 1.03 OWNER OCCUPANCY

- A. Owner intends to continue to occupy adjacent portions of the existing building during the entire construction period.
- B. Owner intends to occupy the Project upon Substantial Completion.
- C. Cooperate with Owner to minimize conflict and to facilitate Owner's operations.
- D. Schedule the Work to accommodate Owner occupancy.

##### 1.04 CONTRACTOR USE OF SITE AND PREMISES

- A. Construction Operations: Limited to areas noted on Drawings.
  - 1. Locate and conduct construction activities in ways that will limit disturbance to site.
- B. Arrange use of site and premises to allow:
  - 1. Owner occupancy.
  - 2. Work by Others.
  - 3. Work by Owner.
  - 4. Use of site and premises by the public.
  - 5. Adjacent building operations.
- C. 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.
    - a. Alternative entrances, exits and Interim life safety procedures will be required if the main entrance or any fire exits are closed during construction. Coordinate durations with Owner.
  - 2. Do not obstruct roadways, sidewalks, or other public ways without permit.
- D. Existing building spaces may not be used for storage, except as allowed by the Owner's representative.
- E. Time Restrictions:
  - 1. Limit conduct to the hours of business hours.
- F. 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 facilities.
- G. This is a smoke and tobacco free project. Use of tobacco is strictly prohibited on project. General Contractor shall coordinate enforcement efforts.

#### **1.05 WORK SEQUENCE**

- A. Coordinate construction schedule and operations with Owner.
- B. Coordinate work of the various Sections of Specifications to assure efficient and orderly sequence of installation of construction elements, with provisions for accommodating items installed later.
- C. Verify characteristics of elements of interrelated operating equipment are compatible; coordinate work of various Sections having interdependent responsibilities for installing, connecting to, and placing in service, such equipment.
- D. Coordinate space requirements and installation of mechanical and electrical work which are indicated diagrammatically on Drawings. Follow routing shown for pipes, ducts, and conduits, as closely as practicable; make runs parallel with lines of building. Utilize spaces efficiently to maximize accessibility for other installations, for maintenance, and for repairs.
- E. Execute cutting and patching to integrate elements of Work, uncover ill-timed, defective, and non-conforming Work, provide openings for penetrations of existing surfaces, and provide samples for testing if required. Seal penetrations through floors, walls, and roof.

#### **1.06 DEFINITIONS AND EXPLANATIONS**

- A. Imperative language is used generally in the specifications. Except as otherwise indicated, requirements expressed imperatively are to be performed by the Contractor as if preceded by the phrase "The Contractor shall".
- B. The term "provide" means furnish and install, complete, and ready for intended use. Except as otherwise defined in greater detail, the term "furnish" means supply and deliver to the project site, including unloading, unpacking, inspecting, and storing until ready for receipt by Owner, installation, etc., as applicable.
- C. Except as otherwise defined in greater detail, the term "install" is used to describe operations at project site including assembly, erection, placing, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning, and similar operations, as applicable.
- D. The term "indicated" is as cross-reference to graphics, notes or schedules on drawings, to other paragraphs or schedules in the specifications, and to similar means of recording requirements in contract documents. Where terms such as "shows", "noted", "schedules", and "specified" are used in lieu of "indicated", it is for purpose of helping reader locate cross-reference, and no limitations of location is intended.

#### **PART 2 PRODUCTS - NOT USED**

#### **PART 3 EXECUTION - NOT USED**

**END OF SECTION**

**SECTION 01 23 00  
ALTERNATES**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Description of Alternates.
- B. Procedures for pricing Alternates.
- C. Documentation of changes to Contract Sum and Contract Time.

**1.02 RELATED REQUIREMENTS**

- A. Document 00 21 13 - Instructions to Bidders: Instructions for preparation of pricing for Alternates.

**1.03 ACCEPTANCE OF ALTERNATES**

- A. Alternates quoted on Bid Forms will be reviewed and accepted or rejected at Owner's option. Accepted Alternates will be identified in the Owner-Contractor Agreement.
- B. Coordinate related work and modify surrounding work to integrate the Work of each Alternate.

**1.04 SCHEDULE OF ALTERNATES**

- A. Alternate No.1 - Additional penthouse scope.
  - 1. Base Bid: Perform the scope of work described in these documents on Penthouse Towers 1 and 2 only. No work on penthouse 3 and 4.
  - 2. Alternate: Perform the scope of work described herein on Penthouse Towers 3 and 4.

**PART 2 PRODUCTS - NOT USED**

**PART 3 EXECUTION - NOT USED**

**END OF SECTION**



**SECTION 01 30 00**  
**ADMINISTRATIVE REQUIREMENTS**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. General administrative requirements.
- B. Electronic document submittal service.
- C. Preconstruction meeting.
- D. Progress meetings.
- E. Construction progress schedule.
- F. Coordination drawings.
- G. Requests for Information (RFI) procedures.

**1.02 RELATED REQUIREMENTS**

- A. Section 00 72 00 - General Conditions: Dates for applications for payment.
- B. Section 01 33 05 - Electronic Submittal Procedures
- C. Section 01 60 00 - Product Requirements: General product requirements.
- D. Section 01 70 00 - Execution and Closeout Requirements: Additional coordination requirements.
- E. Section 01 78 00 - Closeout Submittals: Project record documents; operation and maintenance data; warranties and bonds.

**1.03 GENERAL ADMINISTRATIVE REQUIREMENTS**

- A. Comply with requirements of Section 01 70 00 - Execution and Closeout Requirements for coordination of execution of administrative tasks with timing of construction activities.

**1.04 PROJECT COORDINATOR**

- A. Project Coordinator: General Contractor.
- B. Cooperate with the Project Coordinator in allocation of mobilization areas of site; for field offices and sheds, for site access, traffic, and parking facilities.
- C. During construction, coordinate use of site and facilities through the Project Coordinator.
- D. Comply with Project Coordinator's procedures for intra-project communications; submittals, reports and records, schedules, coordination drawings, and recommendations; and resolution of ambiguities and conflicts.
- E. Comply with instructions of the Project Coordinator for use of temporary utilities and construction facilities. Responsibility for providing temporary utilities and construction facilities is identified in Section 01 10 00 - Summary.
- F. Coordinate field engineering and layout work under instructions of the Project Coordinator.
- G. Make the following types of submittals to Architect through the Project Coordinator:
  - 1. Requests for Information.
  - 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 ELECTRONIC DOCUMENT SUBMITTAL SERVICE**

- A. All documents transmitted for purposes of administration of the contract are to be in electronic (PDF, MS Word, or MS Excel) format, as appropriate to the document, and transmitted via an Internet-based submittal service that receives, logs and stores documents, provides electronic stamping and signatures, and notifies addressees via email.
  - 1. The web-based software will provide status logs, reports, searching and automated notifications.
  - 2. Besides submittals for review, information, and closeout, this procedure applies to Requests for Information (RFIs), progress documentation, contract modification documents (e.g. supplementary instructions, change proposals, change orders), applications for payment, field reports and meeting minutes, Contractor's correction punchlist, and any other document any participant wishes to make part of the project record.
  - 3. Contractor and Architect are required to use this service.
  - 4. It is Contractor's responsibility to submit documents in allowable format.
  - 5. Subcontractors, suppliers, and Architect's consultants are to be permitted to use the service at no extra charge.
  - 6. Users of the service need an email address, internet access, and PDF review software that includes ability to mark up and apply electronic stamps (such as Adobe Acrobat, [www.adobe.com](http://www.adobe.com), or Bluebeam PDF Revu, [www.bluebeam.com](http://www.bluebeam.com)), unless such software capability is provided by the service provider.
  - 7. Paper document transmittals will not be reviewed; emailed electronic documents will not be reviewed.
  - 8. All other specified submittal and document transmission procedures apply, except that electronic document requirements do not apply to samples or color selection charts, which shall be delivered by mail or courier.
- B. Cost: The cost of the service is to be paid by Contractor; include the cost of the service in the Contract Sum.
- C. Submittal Service: The selected service is:
  - 1. Submittal Exchange (tel: 1-800-714-0024): [www.submittalexchange.com/#sle](http://www.submittalexchange.com/#sle).
  - 2. Provided by the Project Coordinator, as approved by Owner and Architect prior to bid.
- D. Project Closeout: Architect will determine when to terminate the service for the project and is responsible for obtaining archive copies of files for Owner.

### **3.02 PRECONSTRUCTION MEETING**

- A. Owner will schedule a meeting after Notice of Award.
- B. Attendance Required:
  - 1. Owner.
  - 2. Architect.
  - 3. Contractor.
  - 4. Major subcontractors, including mechanical and electrical.
- 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, the Owner's Representative and Architect.

6. Procedures and processing of field decisions, submittals, substitutions, applications for payments, proposal request, Change Orders, and Contract closeout procedures.
  7. Scheduling.
  8. Scheduling activities of a Geotechnical Engineer and Testing/Inspection Agency
- D. Project Coordinator will record minutes and distribute copies within 7 days after meeting to participants, with copies to Architect, Owner, participants, and those affected by decisions made.
1. Minutes will be distributed through Web-based project management software system.

### **3.03 PROGRESS MEETINGS**

- A. Project Coordinator will make arrangements for meetings, prepare agenda with copies for participants, preside at meetings.
- B. Attendance Required:
1. Contractor.
  2. Owner.
  3. Architect, at frequency per Owner-Architect agreement.
  4. Contractor's superintendent.
  5. Major subcontractors.
  6. Major Suppliers.
  7. Additional consultants, subcontractors, suppliers and product representatives as appropriate to agenda topics for each meeting.
- 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. Review of off-site fabrication and delivery schedules.
  7. Maintenance of progress schedule.
  8. Corrective measures to regain projected schedules.
  9. Planned progress during succeeding work period.
  10. Coordination of projected progress.
  11. Maintenance of quality and work standards.
  12. Effect of proposed changes on progress schedule and coordination.
  13. Other business relating to work.
- D. Project Coordinator will record minutes and distribute copies within 5 days after meeting to participants, with copies to Architect, Owner, participants, and those affected by decisions made.
1. Minutes will be distributed through Web based project management software system

### **3.04 CONSTRUCTION PROGRESS SCHEDULE**

- A. Within 10 days after date of the Agreement, submit preliminary schedule defining planned operations for the first 60 days of work, with a general outline for remainder of work.
- B. If preliminary schedule requires revision after review, submit revised schedule within 10 days.
- C. Submit updated schedule with each Application for Payment.

### **3.05 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 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 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. Review, coordinate, and comment on requests originating with subcontractors and/or materials suppliers.
    - b. Do not forward requests which solely require internal coordination between subcontractors.
  - 2. Prepare in a format and with content acceptable to Owner.
  - 3. Prepare using software provided by the Electronic Document Submittal Service.
  - 4. 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. Include in each request Contractor's signature attesting to good faith effort to determine from Contract Documents information requiring interpretation.
  - 2. 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 60 00 - Product Requirements)
    - c. Changes that entail change in Contract Time and Contract Sum (comply with provisions of the Conditions of the Contract).
    - d. Different methods of performing work than those indicated in the Contract Drawings and Specifications (comply with provisions of the Conditions of the Contract).
  - 3. 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.
  - 4. Frivolous RFIs: Requests regarding information that is clearly indicated on, or reasonably inferable from, Contract Documents, with no additional input required to clarify the question. They will be returned without a response, with an explanatory notation.
    - a. The Owner reserves the right to assess the Contractor for the costs (on time-and-materials basis) incurred by the Architect, and any of its consultants, due to processing of such RFIs.
- 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: Maintain and print "hard copy" reports for progress meeting. Reports to contain:

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.
  3. Highlight items requiring priority or expedited response.
  4. Highlight items for which a timely response has not been received to date.
  5. Identify and include improper or frivolous RFIs.
- 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.

### **3.06 SUBMITTAL SCHEDULE**

- A. Submit to Architect for review a schedule for submittals in tabular format.
1. Submit at the same time as the preliminary schedule.
  2. Coordinate with Contractor's construction schedule and schedule of values.
  3. Format schedule to allow tracking of status of submittals throughout duration of construction.
  4. Arrange information to include scheduled date for initial submittal, specification number and title, submittal category (for review or for information), description of item of work covered, and role and name of subcontractor.
  5. Account for time required for preparation, review, manufacturing, fabrication and delivery when establishing submittal delivery and review deadline dates.
    - a. For assemblies, equipment, systems comprised of multiple components and/or requiring detailed coordination with other work, allow for additional time to make corrections or revisions to initial submittals, and time for their review.

### **3.07 SUBMITTAL PROCEDURES: SEE SECTION 01 30 05**

**END OF SECTION**



## SECTION 01 33 05

### ELECTRONIC SUBMITTAL PROCEDURES

#### PART 1 - GENERAL

##### 1.1 SUMMARY

- A. Section includes requirements for the submittal schedule and administrative and procedural requirements for submitting Electronic Shop Drawings, Electronic Product Data, and other electronic submittals.
- B. Related Sections and Documents:
  - 1. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.
  - 2. Division 00 – Bidding and Contract Requirements issued by the Contracting Officer, apply to this Section.
  - 3. Section 01 30 00 - Administrative Requirements: general submittal requirements.

##### 1.2 SUBMITTALS

- A. Website provider operation and access instructions.

#### PART 2 - PRODUCTS

##### 2.1 PROJECT WEBSITE SERVICE PROVIDER:

- A. Website Service Provider: Subject to compliance with requirements, provide products and/or service under their current licensing agreements by one of the following website service providers:
  - 1. "Submittal Exchange" ([www.submittalexchange.com](http://www.submittalexchange.com)) (800-714-0024).
  - 2. Equal website service provider pre-approved prior to Bid Date. (See Document 00 43 25 Supplement F – Substitution Request Form (Bidding Phase)).
- B. Website Service shall have the following capabilities:
  - 1. Independently hosted, web-based system designed specifically for transmitting submittals and other construction communications between all project team members. FTP site and e-mail exchanges are not acceptable.
  - 2. Utilize SSL encryption and hosted at SAS70 Type II compliant data centers.
  - 3. Minimum four years documented experience of use on comparable commercial construction projects.
  - 4. Unlimited individual user accounts and system access for all project subcontractors, general contractor, owner, design consultants, and subconsultants.
  - 5. Capability to log and organize by tab an unlimited number of electronic submittals with no file size limitations.
  - 6. Separate locations for owner, design consultant, and subconsultant review comments with contractors restricted from viewing comments until final review or release by owner or primary design consultant.

7. Automatic customized company-specific PDF review and transmittal forms setup as required for owner, design consultants, subconsultants, and general contractor.
8. Full version histories and dates of exchanges automatically tracked and available for viewing, searching, and reporting in a linear log format compatible with AIA G712.
9. Automatic, configurable email notifications for each project team member for new and reviewed submittals and other items.
10. Automatic, configurable email reminders of past due items.
11. Prior to project start, system vendor shall create submittal log with all required items from project manual. Owner or primary design consultant shall have full control over required items list and access to edit, add, or remove items during project.
12. Training shall be provided to general contractor, owner, design consultants, and subconsultants after Notice to Proceed but prior to start of construction.
13. Training sessions for subcontractors shall be provided minimum of twice weekly throughout project.
14. Allowance for scanning and printing services provided by local third-party reprographic vendor to assist with obtaining documents electronically and online print ordering.
15. At completion of project closeout, make available for download an electronic archive of all documents and tracking logs. Electronic archive shall emulate the online project website in organization and operation.

## 2.2 MINIMUM INTERNET SERVICE AND EQUIPMENT REQUIREMENTS

- A. Email address and internet service at Contractor's main office(s).
- B. Adobe Acrobat ([www.adobe.com](http://www.adobe.com)), Bluebeam PDF Revu ([www.bluebeam.com](http://www.bluebeam.com)), NitroPDF ([www.nitropdf.com](http://www.nitropdf.com)) or other similar PDF review software for applying electronic stamps, mark-ups, and comments.

## 2.3 COSTS AND DURATION

- A. General Contractor shall obtain and pay for the website service subscription. (The cost for the service shall be included in the Contractor's Base Bid. Contact the website service provider prior to submitting Bid to obtain pricing).
  1. The minimum duration of the website service subscription shall extend **6 months** beyond the Contractor's anticipated Date of Substantial Completion.

## PART 3 EXECUTION

### 3.1 PROCEDURES

- A. General Contractor's project management team and subcontractors shall attend training sessions with the Owner, Design Consultants, and website provider on the use of the project website prior to uploading any submittals.
- B. Contractor shall not alter the layout or function of the project website.

- C. Electronic Submittals shall be transmitted to the Architect in electronic (PDF) format via a website service designed specifically for transmitting electronic submittals between construction team members.
- D. The intent of electronic submittals is to:
1. Reduce paperwork and shipping costs.
  2. Improve and expedite information flow.
  3. Decrease turnaround time.
  4. Provide the Owner with an electronic archive of submittals at project completion.
- E. Contractor shall be responsible for coordinating with the website service provider for training of their employees, sub-contractors, and suppliers in the use of the website service and PDF submittals.
- F. The following items, at a minimum, shall be electronic submittals and shall be uploaded under the appropriate "tab" on the project website (where applicable, these submittals will be uploaded by the Owner or Design Consultant):
1. Project Team Directory.
  2. Shop Drawings.
  3. Product Data.
  4. Transmittals for Samples delivered.
  5. Informational Submittals.
  6. Closeout Submittals.
  7. Substantial Completion Documents
  8. Supplemental Instructions (SI's).
  9. Change Directives (CD's).
  10. Requests for Information (RFI's).
  11. Requests for Change (RFC's) and Requests for Proposal (RFP's).
  12. Meeting Minutes.
  13. Schedules.
  14. Photos.
  15. Reports.
  16. Tests and Inspections.
  17. Punchlists
- G. Submittal Preparation: Contractor may use any or all of the following options:
1. Subcontractors and Suppliers provide electronic (PDF) submittals to General Contractor via uploading to the website service.
  2. Subcontractors and Suppliers provide electronic (PDF) submittals to General Contractor via email and General Contractor uploads submittals to the website service.
  3. Subcontractors and Suppliers provide paper copy submittals to General Contractor. General Contractor scans submittals to convert to PDF format, and uploads submittals to website service.
  4. Subcontractors and Suppliers provide paper copy submittals to Scanning Service. Scanning Service scans submittals to convert to PDF format. Subcontractors and Suppliers uploads submittals to the website service or forwards to General Contractor for uploading.
- H. Submittal Format:

1. All submittals shall be uploaded in "PDF" format. Reduce pdf file size before uploading whenever feasible.
2. For all submittals larger than 11" x 17", Contractor shall submit two (2) full-size paper copy to Architect for reference only (paper copy will not be returned) in addition to the electronic submittal.

I. Shop Drawing and Product Data Submittal Procedures:

1. General Contractor shall review submittals, add review comments, and apply electronic stamp certifying that the submittal complies with the requirements of the Contract Documents including verification of manufacturer / product, dimensions and coordination of information with other parts of the work.
2. General Contractor shall create an electronic transmittal for each submittal, attach to submittal in PDF format, and upload submittal to website.
3. Architect (and/or Sub-Consultant if applicable) shall review submittal, add review comments, apply electronic stamp indicating status of submittal, and upload reviewed submittal to website. General Contractor will receive email notice of completed review.
4. Distribution of reviewed submittals to subcontractors and suppliers is the responsibility of the General Contractor.
5. Re-submittals, if required, shall be uploaded to the website service under the same procedures as described above.

3.2 NON-ELECTRONIC SUBMITTALS:

A. The following items shall be hard-copy submittals:

1. Color Samples, Actual Color Charts, Physical Material Samples
  - a. Upload a transmittal form to the project website for review and tracking purposes.
2. Applications for Payment.
3. Change Orders.
  - a. Upload a pdf copy to the project website upon approval of change order.

END OF SECTION 01 33 05

**SECTION 01 40 00**  
**QUALITY REQUIREMENTS**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Submittals.
- B. Quality assurance.
- C. References and standards.
- D. Contractor's construction-related professional design services.
- E. Control of installation.
- F. Tolerances.
- G. Manufacturers' field services.
- H. Defect Assessment.

**1.02 RELATED REQUIREMENTS**

- A. Section 01 30 00 - Administrative Requirements
- B. Section 01 33 05 - Electronic Submittal Procedures
- C. Section 01 60 00 - Product Requirements: Requirements for material and product quality.

**1.03 DEFINITIONS**

- A. Contractor's Quality Control Plan: Contractor's management plan for executing the Contract for Construction.
- B. Contractor's Professional Design Services: Design of some aspect or portion of the project by party other than the design professional of record. Provide these services as part of the Contract for Construction.
  - 1. Design Services Types Required:
    - a. Construction-Related: Services Contractor needs to provide in order to carry out the Contractor's sole responsibilities for construction means, methods, techniques, sequences, and procedures.
- C. Design Data: Design-related, signed and sealed drawings, calculations, specifications, certifications, shop drawings and other submittals provided by Contractor, and prepared directly by, or under direct supervision of, appropriately licensed design professional.

**1.04 CONTRACTOR'S CONSTRUCTION-RELATED PROFESSIONAL DESIGN SERVICES**

- A. Coordination: Contractor's professional design services are subject to requirements of project's Conditions for Construction Contract.
- B. Provide such engineering design services as may be necessary to plan and safely conduct certain construction operations, pertaining to, but not limited to the following:
  - 1. Temporary sheeting, shoring, or supports.
  - 2. Temporary scaffolding.
  - 3. Temporary bracing.
  - 4. Temporary stairs or steps required for construction access only.
  - 5. Temporary hoist(s) and rigging.
  - 6. Investigation of soil conditions and design of temporary foundations to support construction equipment.

**1.05 SUBMITTALS**

- A. See Section 01 33 05 - Electronic Submittal Procedures, for submittal procedures.

**1.06 REFERENCES AND STANDARDS**

- A. For products and workmanship specified by reference to a document or documents not included in the Project Manual, also referred to as reference standards, comply with requirements of the

standard, except when more rigid requirements are specified or are required by applicable codes.

- B. Comply with reference standard of date of issue current on date of Contract Documents, except where a specific date is established by applicable code.
- C. Obtain copies of standards where required by product specification sections.
- D. Maintain copy at project site during submittals, planning, and progress of the specific work, until Substantial Completion.
- E. Should specified reference standards conflict with Contract Documents, request clarification from Architect before proceeding.
- F. Neither the contractual relationships, duties, or responsibilities of the parties in Contract nor those of Architect shall be altered from Contract Documents by mention or inference otherwise in any reference document.

## **PART 2 PRODUCTS - NOT USED**

## **PART 3 EXECUTION**

### **3.01 CONTROL OF INSTALLATION**

- A. Monitor quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce work of specified quality.
- B. Comply with manufacturers' instructions, including each step in sequence.
- C. Should manufacturers' instructions conflict with Contract Documents, request clarification from Architect before proceeding.
- D. Comply with specified standards as minimum quality for the work except where more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
- E. Have work performed by persons qualified to produce required and specified quality.
- F. Verify that field measurements are as indicated on shop drawings or as instructed by the manufacturer.
- G. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion, and disfigurement.

### **3.02 TOLERANCES**

- A. Monitor fabrication and installation tolerance control of products to produce acceptable Work. Do not permit tolerances to accumulate.
- B. Comply with manufacturers' tolerances. Should manufacturers' tolerances conflict with Contract Documents, request clarification from Architect before proceeding.
- C. Adjust products to appropriate dimensions; position before securing products in place.

### **3.03 MANUFACTURERS' FIELD SERVICES**

- A. When specified in individual specification sections, require material or product suppliers or manufacturers to provide qualified staff personnel to observe site conditions, conditions of surfaces and installation, quality of workmanship, as applicable, and to initiate instructions when necessary.
- B. Report observations and site decisions or instructions given to applicators or installers that are supplemental or contrary to manufacturers' written instructions.

### **3.04 DEFECT ASSESSMENT**

- A. Replace Work or portions of the Work not complying with specified requirements.
- B. If, in the opinion of Architect, it is not practical to remove and replace the work, Architect will direct an appropriate remedy or adjust payment.

**END OF SECTION**

**SECTION 01 50 00**  
**TEMPORARY FACILITIES AND CONTROLS**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Temporary utilities: Lighting, heat.
- B. Temporary sanitary facilities.
- C. Temporary Controls: Barriers and fencing.
- D. Security requirements.
- E. Vehicular access and parking.
- F. Waste removal facilities and services.
- G. Project identification sign.
- H. Field offices.

**1.02 DEFINITIONS**

- A. Project Coordinator: General Contractor

**1.03 REFERENCE STANDARDS**

- A. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials.
- B. ASTM E90 - Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements.

**1.04 GENERAL**

- A. Install temporary facilities and utilities in conformance with State and Local Codes and requirements.
- B. Trade Contractors to obtain and pay for required applications, permits and inspections.
- C. Early Service: Any Contractor requiring temporary service before it can be provided as specified, or whose requirements with respect to a particular service differ from the service specified shall provide such service as suits their needs, at their own expense, and in a manner satisfactory to the General Contractor.
- D. Maintenance: Temporary facilities and utilities are to be maintained and kept in good operating condition. Maintenance men necessary to perform this work shall be provided in accordance with requirements. Maintenance time will include normal working hours for all trades and start up and shut down overtime as required.
- E. Removals: Subject to approval of General Contractor, contractor providing temporary facilities or services shall remove same when no longer required or when their function is replaced by authorized use of permanent facilities. Other removal time may be directed by General Contractor.
- F. Install temporary work in such a manner as not to interfere with the permanent construction.
- G. Disclaimer: Specific administrative and procedural minimum actions are specified in this section, as extension of provisions in General Conditions and other contract documents. These requirements have been included for special purposes as indicated. Nothing in this section is intended to limit types and amounts of temporary work required, and no omission from this section will be recognized as an indication by Architect, Engineer or General Contractor that such temporary activity is not required for successful completion of the work and compliance with requirements of contract documents. Provisions of this section are applicable to, but not by way of limitation, utility services, construction facilities, security/protection provisions, and support facilities.
- H. Use of permanent systems and facilities:
  - 1. Obtain written agreement with Owner, establishing start of warranties and conditions of use:

- a. Systems complete, with utility connections and safety devices.
- b. Automatic controls operational.
- c. Temporary filters and items required for protection of equipment and finishes are in place.
- d. Replace items damaged during temporary service use.

#### **1.05 TEMPORARY UTILITIES**

- A. Owner will provide the following:
  - 1. Electrical power , consisting of connection to existing facilities.
  - 2. Water supply, consisting of connection to existing facilities.
- B. Provide and pay for all lighting and heating required for construction purposes.
  - 1. General Responsibilities: Temporary heating responsibilities and equipment types relate to the extent of building enclosure and work performed as follows:
    - a. Prior to Enclosure of any Type: Each Trade Contractor shall provide, at his own expense, all cold weather protection and temporary heat as required to carry out his work expeditiously during inclement weather and to protect all his work and materials from damage by the weather.
      - 1) Equipment: No restrictions are placed on heating equipment except that such equipment shall conform to applicable safety regulations and its use shall not damage or otherwise be detrimental to the appearance of the Work.
        - (a) Cost: All Costs borne by Trade Contractor providing temporary heat.
        - (b) Work Restrictions: No work with interior type finishes or work permitted which may be damaged by direct contact with water.
- C. Temporary light and power:
  - 1. Each Trade Contractor:
    - a. Provide temporary light and power for its own construction field office.
    - b. Provide and pay for its own extensions for lights or power tools beyond the receptacle outlets provided below.

#### **1.06 TEMPORARY SANITARY FACILITIES**

- A. Use of existing facilities is permitted.
- B. Maintain daily in clean and sanitary condition.

#### **1.07 BARRIERS**

- A. Provide barriers to prevent unauthorized entry to construction areas, to prevent access to areas that could be hazardous to workers or the public, to allow for owner's use of site and to protect adjacent properties from damage from construction operations and demolition.
- B. Provide protection for plants designated to remain. Replace damaged plants.
- C. Protect non-owned vehicular traffic, stored materials, site, and structures from damage.

#### **1.08 FENCING**

- A. Construction: Commercial grade chain link fence.
- B. Provide 6 foot high fence around construction site; equip with vehicular and pedestrian gates with locks.

#### **1.09 EXTERIOR ENCLOSURES**

- A. Provide temporary weather tight closure of exterior openings to accommodate acceptable working conditions and protection for Products, to allow for temporary heating and maintenance of required ambient temperatures identified in individual specification sections, and to prevent entry of unauthorized persons. Provide access doors with self-closing hardware and locks.

#### **1.10 WEATHER PROTECTION**

- A. Protect work or adjacent property against weather, to maintain their work, materials, apparatus and fixtures free from injury or damage in accordance with the General conditions during the

entire construction period. Work damaged by failure to provide weather protection all be removed and replaced with new work at the contractor's expense.

- B. Provide temporary non-staining waterproof coverings to close-off cavities and shed water to exterior and lap wall assemblies not less than 4 inches. Maintain in watertight condition until permanent coverings are in place.
- C. Remove all snow and ice as may be required for proper protection and execution of the work and protect and safety of the public.

#### **1.11 SECURITY**

- A. Provide security and facilities to protect Work, existing facilities, and Owner's operations from unauthorized entry, vandalism, or theft.
- B. Coordinate with Owner's security program.

#### **1.12 SMOKE-FREE**

- A. This is a Smoke-Free Building and Campus. No smoking (including vaping) permitted on site.

#### **1.13 VEHICULAR ACCESS AND PARKING**

- A. Comply with regulations relating to use of streets and sidewalks, access to emergency facilities, and access for emergency vehicles.
- B. Coordinate access and haul routes with governing authorities and Owner.
- C. Provide traffic control at critical areas of haul routes to regulate traffic, to minimize interference with public traffic.
- D. Provide and maintain access to fire hydrants, free of obstructions. Leave fire lanes and aisles to fire fighting equipment unobstructed at all times. Do not pile material in front of fire equipment, fire doors, or hydrants.
- E. Provide means of removing mud from vehicle wheels before entering streets.
- F. Designated existing on-site roads may be used for construction traffic.
- G. Construct and maintain temporary roads accessing public thoroughfares to serve construction area. Extend and relocate as Work progress requires. Provide detours necessary for unimpeded traffic flow.
- H. Provide temporary parking areas to accommodate construction personnel. When site space is not adequate, provide additional off-site parking.
- I. Existing parking areas may be used for construction parking.
  - 1. Do not obstruct egress to and from parking areas unless authorized by Owner.
- J. Parking of private vehicles of workers shall be in an area allocated by Owner, and managed by Project Coordinator.

#### **1.14 WASTE REMOVAL**

- A. See Section 01 74 19 - Construction Waste Management and Disposal, for additional requirements.
- B. Provide waste removal facilities and services as required to maintain the site in clean and orderly condition. Locate in area designated by Owner and General Contractor.
- C. Provide containers with lids. Remove trash from site periodically, legally disposing of waste materials, debris and rubbish off site and off Owner's property.
- D. If materials to be recycled or re-used on the project must be stored on-site, provide suitable non-combustible containers; locate containers holding flammable material outside the structure unless otherwise approved by the authorities having jurisdiction.
- E. Open free-fall chutes are not permitted. Terminate closed chutes into appropriate containers with lids.
- F. Remove waste materials, debris, and rubbish from building daily.

- G. Carts, trucks, etc. used to transport materials shall be loaded in a safe manner. Materials shall not protrude beyond the sides of conveyance used.
- H. Materials shall not be thrown or dropped from scaffolds or other overhead areas.
- I. Gasoline or other highly flammable liquids shall not be brought inside facilities.

**1.15 PROJECT IDENTIFICATION**

- A. Provide project identification sign of design, construction, and location approved by Owner.
- B. No signs are allowed without Owner permission except those required by law.

**1.16 FIELD OFFICES**

- A. Not Required

**1.17 REMOVAL OF UTILITIES, FACILITIES, AND CONTROLS**

- A. Remove temporary utilities, equipment, facilities, materials, prior to Date of Substantial Completion inspection.
- B. Clean and repair damage caused by installation or use of temporary work.
- C. Restore existing facilities used during construction to original condition.

**PART 2 PRODUCTS - NOT USED**

**PART 3 EXECUTION - NOT USED**

**END OF SECTION**

**SECTION 01 60 00**  
**PRODUCT REQUIREMENTS**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. General product requirements.
- B. Re-use of existing products.
- C. Transportation, handling, storage and protection.
- D. Product option requirements.
- E. Substitution limitations.
- F. Procedures for Owner-supplied products.
- G. Maintenance materials, including extra materials, spare parts, tools, and software.

**1.02 RELATED REQUIREMENTS**

- A. Section 01 10 00 - Summary: Lists of products to be removed from existing building.
- B. Section 01 40 00 - Quality Requirements: Product quality monitoring.
- C. Section 01 60 10 - Substitution Procedures
- D. Section 01 60 10.01 - Substitution Request Form
- E. Section 01 74 19 - Construction Waste Management and Disposal: Waste disposal requirements potentially affecting product selection, packaging and substitutions.

**1.03 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 EXISTING PRODUCTS**

- A. Do not use materials and equipment removed from existing premises unless specifically required or permitted by Contract Documents.
- B. Unforeseen historic items encountered remain the property of the Owner; notify Owner promptly upon discovery; protect, remove, handle, and store as directed by Owner.
- C. Existing materials and equipment indicated to be removed, but not to be re-used, relocated, reinstalled, delivered to the Owner, or otherwise indicated as to remain the property of the Owner, become the property of the Contractor; remove from site.
- D. Specific Products to be Reused: The reuse of certain materials and equipment already existing on the project site is indicated in the documents.
  - 1. See Section 01 10 00 for list of items required to be salvaged for reuse and relocation.
  - 2. If reuse of other existing materials or equipment is desired, submit substitution request.

**2.02 NEW PRODUCTS**

- A. Provide new products unless specifically required or permitted by Contract Documents.
- B. See Section 01 40 00 - Quality Requirements, for additional source quality control requirements.

- C. Use of products having any of the following characteristics is not permitted:
  - 1. Made using or containing CFC's or HCFC's.
  - 2. Made of wood from newly cut old growth timber.
  - 3. Containing lead, cadmium, or asbestos.
- D. Where other criteria are met, Contractor shall give preference to products that:
  - 1. If used on interior, have lower emissions.
  - 2. If wet-applied, have lower VOC content.
  - 3. Are extracted, harvested, and/or manufactured closer to the location of the project.
  - 4. Result in less construction waste. See Section 01 74 19.

### **2.03 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, or an equal submitted and approved.
- C. Products Specified by Naming One or More Manufacturers with a Provision for Substitutions: Submit a request for substitution for any manufacturer not named.
- D. See also Section 01 60 10 - Substitution Procedures.

### **2.04 MAINTENANCE MATERIALS**

- A. Furnish extra materials, spare parts, tools, and software of types and in quantities specified in individual specification sections.
- B. Deliver and place in location as directed; obtain receipt prior to final payment.

## **PART 3 EXECUTION**

### **3.01 SUBSTITUTION LIMITATIONS**

- A. See Section 01 60 10 - Substitution Procedures for procedures for submitting equal products for consideration.

### **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. Provide protection of stored materials and products against theft, casualty, or deterioration.
- B. 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 74 19.
  - 1. Structural Loading Limitations: Handle and store products and materials so as not to exceed static and dynamic load-bearing capacities of project roof areas.

- C. Store and protect products in accordance with manufacturers' instructions.
- D. Store with seals and labels intact and legible.
- E. Arrange storage of materials and products to allow for visual inspection for the purpose of determination of quantities, amounts, and unit counts.
- F. Store sensitive products in weathertight, climate-controlled enclosures in an environment favorable to product.
- G. For exterior storage of fabricated products, place on sloped supports above ground.
- H. Protect products from damage or deterioration due to construction operations, weather, precipitation, humidity, temperature, sunlight and ultraviolet light, dirt, dust, and other contaminants.
- I. Comply with manufacturer's warranty conditions, if any.
- J. Do not store products directly on the ground.
- K. Cover products subject to deterioration with impervious sheet covering. Provide ventilation to prevent condensation and degradation of products.
- L. Prevent contact with material that may cause corrosion, discoloration, or staining.
- M. Provide equipment and personnel to store products by methods to prevent soiling, disfigurement, or damage.
- N. 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**



**SECTION 01 60 10**  
**SUBSTITUTION PROCEDURES**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Procedural requirements for proposed substitutions (equals), prior to bid and after award.

**1.02 RELATED REQUIREMENTS**

- A. Section 00 21 13 - Instructions to Bidders: Restrictions on timing of substitution requests.
- B. Section 00 43 25 - Substitution Request Form - During Procurement: Required form for substitution requests made prior to award of contract (During procurement).
- C. Section 01 23 00 - Alternates, for product alternatives affecting this section.
- D. Section 01 30 00 - Administrative Requirements: Submittal procedures, coordination.
- E. Section 01 60 00 - Product Requirements: Fundamental product requirements, product options, delivery, storage, and handling.
- F. Section 01 60 10.01 - Substitution Request Form: Required form for substitution requests made after award of contract (During construction).

**1.03 DEFINITIONS**

- A. Substitutions: Changes from Contract Documents requirements proposed by Contractor to materials, products, assemblies, and equipment.
  - 1. "Equals" are products that:
    - a. are equal in materials of construction, quality, durability, appearance, strength and design characteristics.
    - b. will reliably perform and function at least equally well as the brand-named product and achieve the results imposed by the design concept of the completed project as a functions whole.
    - c. have a proven record of performance and responsive service.
  - 2. "Substitutes" are items of materials or equipment proposed that are determined by the design professional not to be an equal or may require redesign to incorporate into the project.
    - a. Under open and free competition requirements, owners are not required to consider substitutes and **substitutes will not be considered for this project.**
  - 3. Substitutions for Cause: Proposed due to changed Project circumstances beyond Contractor's control.
    - a. Unavailability.
    - b. Regulatory changes.
  - 4. Substitutions for Convenience: Proposed due to possibility of offering substantial advantage to the Project.
    - a. Substitution requests offering advantages solely to the Contractor will not be considered.
  - 5. Substitutions for this project shall only consist of Equal Products: The proposed products must have the same salient characteristics as the Basis of Design or other listed manufacturer or products, but were not listed as an acceptable manufacturer/product in specifications.
    - a. The named products and listed qualities in each section establish the salient features against which comparable products will be evaluated. Qualities may include type, function, dimension, in-service performance, physical properties, appearance, and other characteristics.
    - b. The Design Professional and Owner will make the final determination of a proposed product as being equal.

## **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.
  - 6. Agrees to reimburse Owner and Architect for review or redesign services associated with re-approval by authorities.
- B. A Substitution Request for specified installer constitutes a representation that the submitter:
  - 1. Has acted in good faith to obtain services of specified installer, but was unable to come to commercial, or other terms.
- C. Document each request with complete data substantiating compliance of proposed substitution with Contract Documents. Burden of proof is on proposer.
  - 1. All characteristics shall be compliant.
- D. Content: Include information necessary for tracking the status of each Substitution Request, and information necessary to provide an actionable response.
  - 1. Forms included in the Project Manual are adequate for this purpose, and must be used.
- E. 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. Submittal Time Restrictions:
  - 1. Instructions to Bidders specifies time restrictions and the documents required for submitting substitution requests during the bidding period.
- B. Submittal Form (before award of contract):
  - 1. Submit substitution requests by completing the form provided in Section 00 43 25. See this form for additional information and instructions. Use only this form; other forms of submission are unacceptable.
  - 2. Substitution requests shall not be considered approved unless included by addendum.

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

- A. Submittal Form (after award of contract):
  - 1. Submit substitution requests by completing the form provided in Section 01 60 10.01. See this section for additional information and instructions. Use only this form; other forms of submission are unacceptable.
- B. 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.
- C. Submit request for Substitution for Convenience within 14 days of 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. Contractor is responsible for ensuring that the proposed substitution is of equal to or superior to the basis of design in performance, appearance, quality and function prior to Architect's review.
  2. 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.
  3. Document means of coordinating of substitution item with other portions of the work, including work by affected subcontractors.
  4. Bear the costs engendered by proposed substitution of:
    - a. Other construction by Owner.
    - b. Other unanticipated project considerations.
- D. 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.

### **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**

- A. Accepted substitutions change the work of the Project. They will be documented and incorporated into work of the project by Change Order, Construction Change Directive, Architectural Supplementary Instructions, or similar instruments provided for in the Conditions of the Contract.
  1. An approved and returned Substitution Request Form alone does not qualify.

### **3.06 CLOSEOUT ACTIVITIES**

- A. See Section 01 78 00 - Closeout Submittals, for closeout submittals.
- B. Include completed Substitution Request Forms as part of the Project record.

### **3.07 ATTACHMENTS**

- A. A facsimile of the Substitution Request Form (During Construction) required to be used on the Project is included after this section.

**END OF SECTION**



**SECTION 01 60 10.01**  
**SUBSTITUTION REQUEST FORM**

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

PROJECT TITLE \_\_\_\_\_ PROJECT NO. \_\_\_\_\_

DRAWING NO. \_\_\_\_\_ DRAWING TITLE \_\_\_\_\_

SPEC. SECTION	SPEC. TITLE	PARAGRAPH	SPECIFIED ITEM
_____	_____	_____	_____

Proposed Substitution: \_\_\_\_\_

Attach complete information on changes to Drawings and/or Specifications which proposed substitution will require for its proper installation.

Submit, with request, all necessary samples and substantiating data to prove equal quality and performance to that which is specified. Clearly mark manufacturer's literature to indicate equality in performance.

**Substitutions of the materials and equipment described in the Contract Documents will be considered during the bidding period upon receipt or a written request to the Architect for approval up to five (5) days before receipt of bids. Verbal or written requests without the completed Substitution Request Form will not be considered.**

**CERTIFICATION OF EQUAL PERFORMANCE AND ASSUMPTION OF LIABILITY FOR EQUAL PERFORMANCE**

The undersigned states that the function, appearance, and quality are equivalent or superior to the specified item.

Submitted by:

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Firm

\_\_\_\_\_  
Address

\_\_\_\_\_  
Telephone                      Email                      Date

Signature shall be by person having authority to legally bind his firm to the above terms. Failure to provide legally binding signature will result in retraction of approval.

**Fill in Blanks Below:**

- A. Does the substitution affect dimensions shown on Drawings?      Yes      No

If yes, clearly indicate changes:

\_\_\_\_\_  
\_\_\_\_\_

- B. What effect does substitution have on other Contracts or other trades?

\_\_\_\_\_  
\_\_\_\_\_

- C. What effect does substitution have on construction schedule?

\_\_\_\_\_

- \_\_\_\_\_
- D. Manufacturer's warranties of the proposed and specified items are:  
 \_\_\_\_\_ Same \_\_\_\_\_ Different (Explain on Attachment)
- E. Reason for Request:  
 \_\_\_\_\_  
 \_\_\_\_\_
- F. Itemized comparison of specified item(s) with the proposed substitution.  
 List significant variations:  
 \_\_\_\_\_  
 \_\_\_\_\_
- G. Accurate cost data comparing proposed substitution with product specified:  
 \_\_\_\_\_  
 \_\_\_\_\_
- H. Designation of maintenance services and sources:  
 \_\_\_\_\_  
 \_\_\_\_\_

(ATTACH ADDITIONAL SHEETS IF REQUIRED)

**FOR USE BY DESIGN PROFESSIONAL:**

\_\_\_\_\_ Recommended                      \_\_\_\_\_ Recommended as Noted  
 \_\_\_\_\_ Not Recommended              \_\_\_\_\_ Received Too Late  
 Signed By \_\_\_\_\_  
 Date \_\_\_\_\_

**FOR USE BY OWNER'S REPRESENTATIVE OR OWNER:**

\_\_\_\_\_ Approved                              \_\_\_\_\_ Approved as Noted  
 \_\_\_\_\_ Not Approved                      \_\_\_\_\_ Approved Too Late  
 Signed By \_\_\_\_\_  
 Date \_\_\_\_\_

**END OF SECTION**

**SECTION 01 70 00**  
**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, except removal, disposal, and/or remediation of hazardous materials and toxic substances.
- C. Pre-installation meetings.
- D. Cutting and patching.
- E. Cleaning and protection.
- F. Starting of systems and equipment.
- G. Demonstration and instruction of Owner personnel.
- H. Closeout procedures, including Contractor's Correction Punch List, except payment procedures.
- I. General requirements for maintenance service.

**1.02 RELATED REQUIREMENTS**

- A. Section 01 10 00 - Summary: Limitations on working in existing building; continued occupancy; work sequence; identification of salvaged and relocated materials.
- B. Section 01 33 05 - Electronic Submittal Procedures
- C. Section 01 40 00 - Quality Requirements: Testing and inspection procedures.
- D. Section 01 50 00 - Temporary Facilities and Controls: Temporary exterior enclosures.
- E. Section 01 74 19 - Construction Waste Management and Disposal: Additional procedures for trash/waste removal, recycling, salvage, and reuse.
- F. Section 01 78 00 - Closeout Submittals: Project record documents, operation and maintenance data, warranties .
- G. Section 02 41 00 - Demolition: Demolition of whole structures and parts thereof; site utility demolition.
- H. Individual Product Specification Sections:
  - 1. Advance notification to other sections of openings required in work of those sections.

**1.03 REFERENCE STANDARDS**

- A. NFPA 241 - Standard for Safeguarding Construction, Alteration, and Demolition Operations.

**1.04 SUBMITTALS**

- A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
- B. Survey work: Submit name, address, and telephone number of Engineer before starting survey work.
  - 1. On request, submit documentation verifying accuracy of survey work.
  - 2. Submit a copy of site drawing signed by the Land Surveyor, that the elevations and locations of the work are in compliance with Contract Documents.
  - 3. Submit surveys and survey logs for the project record.
- C. Demolition Plan: Submit demolition plan as specified by OSHA and local authorities.
  - 1. Indicate extent of demolition, removal sequence, bracing and shoring, and location and construction of barricades and fences. Include design drawings and calculations for bracing and shoring.
  - 2. Include a summary of safety procedures.
- D. Cutting and Patching: Submit written request in advance of cutting or alteration that affects:
  - 1. Structural integrity of any element of Project.
  - 2. Integrity of weather exposed or moisture resistant element.

3. Efficiency, maintenance, or safety of any operational element.
4. Visual qualities of sight exposed elements.
5. Work of Owner or separate Contractor.
6. Include in request:
  - a. Identification of Project.
  - b. Location and description of affected work.
  - c. Necessity for cutting or alteration.
  - d. Description of proposed work and products to be used.
  - e. Alternatives to cutting and patching.
  - f. Effect on work of Owner or separate Contractor.
  - g. Written permission of affected separate Contractor.
  - h. Date and time work will be executed.

#### **1.05 QUALIFICATIONS**

- A. For surveying work, employ a professional engineer registered in the State in which the Project is located 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,
- B. For design of temporary shoring and bracing, employ a Professional Engineer experienced in design of this type of work and licensed in the State in which the Project is located.

#### **1.06 PROJECT CONDITIONS**

- A. Protect site from puddling or running water. Provide water barriers as required to protect site from soil erosion.
- B. Ventilate enclosed areas to assist cure of materials, to dissipate humidity, and to prevent accumulation of dust, fumes, vapors, or gases.
- C. Noise Control: Provide methods, means, and facilities to minimize noise produced by construction operations.
  1. Outdoors: Limit conduct of especially noisy exterior work to the hours of 8 am to 5 pm.
- D. Pest and Rodent Control: Provide methods, means, and facilities to prevent pests and insects from accessing or invading premises or damaging the work.
- E. Pollution Control: Provide methods, means, and facilities to prevent contamination of soil, water, and atmosphere from discharge of noxious, toxic substances, and pollutants produced by construction operations. Comply with federal, state, and local regulations.

#### **1.07 COORDINATION**

- A. See Section 01 10 00 for occupancy-related requirements.
- B. 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.
- C. Notify affected utility companies and comply with their requirements.
- D. 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.
- E. 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.
- F. In finished areas except as otherwise indicated, conceal pipes, ducts, and wiring within the construction. Coordinate locations of fixtures and outlets with finish elements.
- G. Coordinate completion and clean-up of work of separate sections.

- H. 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 60 00 - 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 PREINSTALLATION MEETINGS**

- A. When required in individual specification sections, convene a preinstallation meeting at the site prior to commencing work of the section.
- B. Include pre-installation meetings in overall schedule.
- C. Require attendance of parties directly affecting, or affected by, work of the specific section.
- D. Notify Architect five days in advance of meeting date.
- E. Prepare agenda and preside at meeting:
  - 1. Review conditions of examination, preparation and installation procedures.
  - 2. Review coordination with related work.
- F. 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.

### **3.04 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.
  - 2. Grid or axis for structures.
  - 3. Building foundation, column locations, ground floor elevations, and roof elevations.
- H. Periodically verify layouts by same means.
- I. Maintain a complete and accurate log of control and survey work as it progresses.

### **3.05 GENERAL INSTALLATION REQUIREMENTS**

- A. In addition to compliance with regulatory requirements, conduct construction operations in compliance with NFPA 241, including applicable recommendations in Appendix A.
- B. 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.
- C. Make vertical elements plumb and horizontal elements level, unless otherwise indicated.
- D. Install equipment and fittings plumb and level, neatly aligned with adjacent vertical and horizontal lines, unless otherwise indicated.
- E. Make consistent texture on surfaces, with seamless transitions, unless otherwise indicated.
- F. Make neat transitions between different surfaces, maintaining texture and appearance.

### **3.06 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 50 00 .
- 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 rotted wood, corroded metals, and deteriorated masonry and concrete; replace with new construction specified.
  - 2. Remove items indicated on drawings.
  - 3. Relocate items indicated on drawings.
  - 4. 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.

5. 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. See Section 01 10 00 for other limitations on outages and required notifications.
    - c. 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.
1. When existing finished surfaces are cut so that a smooth transition with new work is not possible, terminate existing surface along a straight line at a natural line of division and make recommendation to Architect.
- 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.

### **3.07 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 specified condition.
  - E. Employ skilled and experienced 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 tightly 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 , 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.

### **3.08 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.

### **3.09 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. Protect work from spilled liquids. If work is exposed to spilled liquids, immediately remove protective coverings, dry out work, and replace protective coverings.
- G. 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.
  1. Minimum protection to include the following:

- a. One layer of 1/4 inch thick fanfold board ("Amocor'PB4" by Amoco or equal) laid directly over roof.
- b. One layer of nominal 1/2 inch thick exterior plywood or exterior OSB board laid over fanfold board. Provide suitable ballast to maintain position and preclude blow-off. Do not overload structure.
- 2. After completion of work operations on roof, remove temporary protection, restore roof to pre-construction condition, and repair damage to roof, if any; see below.
  - a. Damage/Warranties: Damage to existing roofing due to operations under this Contract to be repaired as required by roofing membrane manufacturer without reduction in Owner's warranty provisions and rights:
  - b. All costs associated with repairs and warranty reinstatements, if any, to be borne by the Contractor who caused the damage.
- H. Prohibit traffic from landscaped areas.
- I. Remove protective coverings when no longer needed; reuse or recycle coverings if possible.

### **3.10 FINAL CLEANING**

- A. Execute final cleaning prior to Substantial Completion.
  - 1. Clean areas to be occupied by Owner prior to final completion before Owner occupancy.
- B. Use cleaning materials that are nonhazardous.
- 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. Replace filters of operating equipment.
- F. Clean debris from roofs and drainage systems.
- G. Clean site; sweep paved areas, rake clean landscaped surfaces.
- H. 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 Contractor and/or Owner 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**

## SECTION 01 74 19

### CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL

#### PART 1 - GENERAL

##### 1.1 SUMMARY

- A. Section includes administrative and procedural requirements for the following:
  - 1. Salvaging nonhazardous demolition and construction waste.
  - 2. Recycling nonhazardous demolition and construction waste.
  - 3. Disposing of nonhazardous demolition and construction waste.
- B. Related Requirements:
  - 1. Section 02 41 00 – Demolition: disposition of waste resulting from partial demolition of buildings, structures, and site improvements.
  - 2. Section 07 01 50.19 – Roof Patching and Repair

##### 1.2 DEFINITIONS

- A. Construction Waste: Building and site improvement materials and other solid waste resulting from construction, remodeling, renovation, or repair operations. Construction waste includes packaging.
- B. Demolition Waste: Building and site improvement materials resulting from demolition or selective demolition operations.
- C. Disposal: Removal off-site of demolition and construction waste and subsequent sale, recycling, reuse, or deposit in landfill or incinerator acceptable to authorities having jurisdiction.
- D. Divert: Redirection of demolition or construction waste from disposal in landfills to alternate destinations for recycle, salvage, or reuse.
- E. Recycle: Recovery of demolition or construction waste for subsequent processing in preparation for reuse.
- F. Salvage: Recovery of demolition or construction waste and subsequent sale or reuse in another facility.
- G. Salvage and Reuse: Recovery of demolition or construction waste and subsequent incorporation into the Work.

### 1.3 PERFORMANCE REQUIREMENTS

- A. General: Achieve minimum end-of-Project rate for salvage/recycling of **60 percent** by weight of total non-hazardous solid waste generated by the Work. Practice efficient waste management in the use of materials in the course of the Work. Use all reasonable means to divert construction and demolition waste from landfills and incinerators. Facilitate recycling and salvage of materials, including, but not limited to, the following:

1. Demolition Waste:
  - a. Asphalt paving.
  - b. Concrete.
  - c. Concrete reinforcing steel.
  - d. Brick.
  - e. Concrete masonry units.
  - f. Wood studs.
  - g. Wood joists.
  - h. Plywood and oriented strand board.
  - i. Wood paneling.
  - j. Wood trim.
  - k. Structural and miscellaneous steel.
  - l. Rough hardware.
  - m. Roofing.
  - n. Insulation.
  - o. Doors and frames.
  - p. Door hardware.
  - q. Windows.
  - r. Glazing.
  - s. Metal studs.
  - t. Gypsum board.
  - u. Acoustical tile and panels.
  - v. Carpet.
  - w. Carpet pad.
  - x. Demountable partitions.
  - y. Equipment.
  - z. Cabinets.
  - aa. Plumbing fixtures.
  - bb. Piping.
  - cc. Supports and hangers.
  - dd. Valves.
  - ee. Sprinklers.
  - ff. Mechanical equipment.
  - gg. Refrigerants.
  - hh. Electrical conduit.
  - ii. Copper wiring.
  - jj. Lighting fixtures.
  - kk. Lamps.
  - ll. Ballasts.
  - mm. Electrical devices.
  - nn. Switchgear and panelboards.
  - oo. Transformers.

pp. Site-clearing waste.

2. Construction Waste:

- a. Concrete
- b. Masonry and CMU.
- c. Lumber.
- d. Wood sheet materials.
- e. Wood trim.
- f. Metals.
- g. Roofing.
- h. Insulation.
- i. Carpet and pad.
- j. Gypsum board.
- k. Piping.
- l. Electrical conduit.
- m. Packaging: Regardless of salvage/recycle goal indicated in "General" Paragraph above, salvage or recycle **100 percent** of the following uncontaminated packaging materials:

- 1) Paper.
- 2) Cardboard.
- 3) Boxes.
- 4) Plastic sheet and film.
- 5) Polystyrene packaging.
- 6) Wood crates.
- 7) Plastic pails.

B. 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.

C. 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.

#### 1.4 ACTION SUBMITTALS

- A. Waste Management Plan: Submit plan within 10 days of date established for the Notice to Proceed or prior to commencement of any work, whichever comes first.

#### 1.5 INFORMATIONAL SUBMITTALS

- A. Waste Reduction Reports: Reports shall be created using Owner's "Waste Reduction Report Template". Print reports to pdf prior to submission. **Include scans of all related invoices/weight tickets with each report.**

1. Progress Reports: Submit an updated report monthly. Submit concurrently with Applications for Payment. Failure to submit report may delay payment. Upload reports to the Project website. Include the following information:
  - a. Total quantity of construction waste in tons.
  - b. Total quantity of diverted waste in tons (itemized by material type).
    - 1) If containers taken to a recycling facility contain co-mingled waste to be sorted by the recycler, use the current recovery rate for their facility for each drop-off date when calculating actual diverted waste quantities for reporting. For example, if the facility's recovery rate is 75.8%, and 20 tons of co-mingled waste is dropped off, even though it may be 100% recyclable, only 75.87% of it can be reported (15.16 tons). Verify the facility's current recovery rate for the month in which each drop-off was made.
  - c. Total percentage of construction waste diverted from landfill.
  - d. Landfill Disposal:
    - 1) Identification of material.
    - 2) Amount of waste material disposed of in landfills in tons. List weights for each individual haul and calculated total weight on each updated report.
    - 3) Identity of the landfill, hauler, date of haul, and ticket number.
  - e. Recycled and Salvaged Material:
    - 1) Identification of material, including material retrieved by installer for use on other projects or for return to manufacturer for recycling.
    - 2) Amount of waste material recycled or salvaged in tons. List weights for each individual haul and calculated total weight on each updated report.
    - 3) Identity of the receiving party, hauler, date of haul, and ticket number.
    - 4) Certification by receiving party that materials will not be disposed of in landfills or by incineration.
  - f. Material Reused on Project:
    - 1) Identification of material and how it was reused on the Project.
    - 2) Amount of waste material reused in tons. List weights for each material and calculated total weight on each updated report.
    - 3) Include weight tickets or calculations as evidence of quantities.
  - g. Other Disposal Methods: Include information similar to that described above, as appropriate to disposal method.
2. Final Report: At completion of Project, upload a Final Report to the Project website.

## **1.6 WASTE MANAGEMENT PLAN**

- A. Develop a waste management plan to include the following information:
  1. Analysis of the trash and waste projected to be generated during the entire project cycle, including types and quantities.
  2. Landfill Options: The name, address, and telephone number of the landfill(s) where trash/waste will be disposed of.

3. Landfill Alternatives: List all waste materials that will be diverted from landfills using reuse, salvage, or recycling. Include list of local receivers and processors and type of material each will accept. Include names, addresses, and telephone numbers.
4. Meetings: Describe regular meetings to be held to address waste prevention, reduction, recycling, salvage, reuse, and disposal.
5. Materials Handling and Procedures: Describe the means by which materials to be diverted from landfills will be protected from contamination and prepared for acceptance by designated facilities; include separation procedures for recyclables, storage, and packaging.
6. Transportation: Identify the destination and means of transportation of materials to be recycled; i.e. whether materials will be site-separated and self-hauled to designated centers, or whether mixed materials will be collected by a waste hauler.

B. The following sources may be useful in developing the Waste Management Plan:

1. Phoenix C&D Recycling  
[www.phoenixrecycling.net](http://www.phoenixrecycling.net)  
[creynolds@phoenixrecycling.net](mailto:creynolds@phoenixrecycling.net)  
4764 NE 22<sup>nd</sup> St, Des Moines, Iowa  
(515) 323-5888
2. Alter Trading Corporation  
<https://www.altertrading.com/locations/8>  
1810 E. Hull Ave  
Des Moines, IA 50313  
(515) 262-0764
3. Hallett Material  
[www.hallettmaterials.com](http://www.hallettmaterials.com)  
[jsinclair@hallettmaterials.com](mailto:jsinclair@hallettmaterials.com)  
4764 NE 22<sup>nd</sup> St, Des Moines, Iowa  
(515) 266-9928

## **PART 2 - PRODUCTS (Not Used)**

## **PART 3 - EXECUTION**

### **3.1 PLAN IMPLEMENTATION**

- A. Coordinator: Designate an on-site waste management coordinator responsible for instructing workers and overseeing and documenting results of the Waste Management Plan.
- B. Communication: Distribute copies of the Waste Management Plan to the job site foreman, each subcontractor, the Owner, and the Owner's Project Architect.
- C. Training: Train workers, subcontractors, and suppliers on proper waste management procedures as appropriate for the work:

1. Distribute and review the Waste Management Plan with each entity when they first begin work on-site. 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.
  2. Provide follow-up training for each entity as needed to maintain compliance with the plan.
- D. Meetings:
1. Review the Waste Management Plan at the Pre-Construction Meeting. Discuss responsibilities of each involved party and goals for the project. Revise and resubmit the plan as agreed to at the meeting.
  2. Include waste management and recycling discussion in pre-installation meetings.
  3. Include waste management and recycling as an agenda item in all progress meetings with the Owner and job safety meetings with the subcontractors..
- 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. As a minimum, provide:
    - a. Separate area for storage of materials to be reused on-site, such as wood cut-offs for blocking.
    - b. Separate dumpsters for each category of recyclable.
    - c. Recycling bins at worker lunch areas.
  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 in accordance with applicable regulations.
- G. Transportation: Arrange for timely pickups from the site or deliveries to approved facilities of trash/waste material to keep construction site clear and prevent contamination of materials. Keep copies of delivery and pickup receipts for reporting.

### **3.2 SALVAGING DEMOLITION AND CONSTRUCTION WASTE**

- A. Salvaged Items for Reuse in the Work: Salvage items for reuse and handle as follows:
1. Clean salvaged items.
  2. Pack or crate items after cleaning. Identify contents of containers with label indicating elements, date of removal, quantity, and location where removed.
  3. Store items in a secure area until installation.
  4. Protect items from damage during transport and storage.
  5. Install salvaged items to comply with installation requirements for new materials and equipment. Provide connections, supports, and miscellaneous materials necessary to make items functional for use indicated.
- B. Salvaged Items for sale and donation not permitted on Project site.

- C. Salvaged Items for Owner's Use: Salvage items for Owner's use and handle as follows:
1. Clean salvaged items.
  2. Pack or crate items after cleaning. Identify contents of containers with label indicating elements, date of removal, quantity, and location where removed.
  3. Store and protect items from damage in a secure area until pick-up by Owner.
  4. Notify Owner when items are ready for pick-up.

### **3.3 RECYCLING DEMOLITION AND CONSTRUCTION WASTE, GENERAL**

- A. General: Recycle paper and beverage containers used by on-site workers.
- B. Procedures: Separate recyclable waste from other waste materials, trash, and debris. Separate recyclable waste by type at Project site to the maximum extent practical according to approved construction waste management plan.
1. Provide appropriately marked containers or bins for controlling recyclable waste until removed from Project site. Include list of acceptable and unacceptable materials at each container and bin.
    - a. Inspect containers and bins for contamination and remove contaminated materials if found.
  2. Stockpile processed materials on-site without intermixing with other materials. Place, grade, and shape stockpiles to drain surface water. Cover to prevent windblown dust.
  3. Stockpile materials away from construction area. Do not store within drip line of remaining trees.
  4. Store components off the ground and protect from the weather.
  5. Remove recyclable waste from Owner's property and transport to recycling receiver or processor.

### **3.4 RECYCLING DEMOLITION WASTE**

- A. Land Clearing Debris: Collect wood debris from land clearing separate from large amounts of dirt and other non-wood materials and transport to recycling facility.
- B. Asphalt Paving: Break up and transport paving to asphalt-recycling facility.
- C. Concrete and Masonry: Free of metals including reinforcing, wood, and other contaminants. Process by one of the following means:
1. If allowed by specifications, during demolition, crush concrete and concrete masonry to aggregate size. Store crushed material on-site in a clean area to avoid contamination from other materials or building processes. Re-use on site crushed material for fill, for stabilizing soils, or as base and sub-base materials.
  2. If crushing on-site is impractical, store material during demolition processes on site in a clean, uncontaminated area and transport concrete and masonry materials to a certified concrete recycler.

- D. Wood Materials: Sort and stack members according to size, type, and length. Separate lumber, engineered wood products, panel products, and treated wood materials. Reuse on-site as appropriate or transport to recycling facility.
- E. Metals: Cut as required to fit into containers.
- F. Asphalt Shingle Roofing: Separate organic and glass-fiber asphalt shingles and felts. Remove and dispose of nails, staples, and accessories.
- G. Gypsum Board: Stack large clean pieces on wood pallets or in container and store in a dry location. Remove edge trim and sort with other metals. Remove and dispose of fasteners.
- H. Acoustical Ceiling Panels and Tile: Stack large clean pieces on wood pallets and store in a dry location.
- I. Metal Suspension System: Separate metal members including trim, and other metals from acoustical panels and tile and sort with other metals.
- J. Carpet (and pad): Roll large pieces tightly after removing debris, trash, adhesive, and tack strips.
  - 1. Store clean, dry carpet (and pad) in a closed container or trailer provided by Carpet Reclamation Agency or carpet recycler.
- K. Carpet Tile: Remove debris, trash, and adhesive.
  - 1. Stack tile on pallet and store clean, dry carpet in a closed container or trailer provided by Carpet Reclamation Agency or carpet recycler.
- L. Piping: Reduce piping to straight lengths and store by type and size. Separate supports, hangers, valves, sprinklers, and other components by type and size.
- M. Conduit: Reduce conduit to straight lengths and store by type and size.
- N. Packaging:
  - 1. Cardboard and Boxes: Break down packaging into flat sheets. Bundle and store in a dry location.
  - 2. Polystyrene Packaging: Separate and bag materials.
  - 3. Pallets: As much as possible, require deliveries using pallets to remove pallets from Project site. For pallets that remain on-site, break down pallets into component wood pieces and comply with requirements for recycling wood.
  - 4. Crates: Break down crates into component wood pieces and comply with requirements for recycling wood.

### **3.5 DISPOSAL OF WASTE**

- A. General: Except for items or materials to be salvaged, recycled, or otherwise reused, remove waste materials from Project site and legally dispose of them in a landfill acceptable to authorities having jurisdiction.

1. Except as otherwise specified, do not allow waste materials that are to be disposed of to accumulate on-site.
2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.

**END OF SECTION 01 74 19**



**SECTION 01 78 00**  
**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 61 00, 00 73 00 - Supplementary Conditions, and \_\_\_\_\_: Performance bond and labor and material payment bonds, warranty, and correction of work.
- B. Section 01 33 05 - Electronic Submittal Procedures: Submittals procedures, shop drawings, product data, and samples.
- C. Section 01 70 00 - 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. 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.
  - 2. 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 2 PRODUCTS - NOT USED**

**PART 3 EXECUTION**

**3.01 PROJECT RECORD DOCUMENTS**

- A. Maintain on site one set of the following record documents; record actual revisions to the Work:
  - 1. Drawings.
  - 2. Specifications.
  - 3. Addenda.
  - 4. Change Orders and other modifications to the Contract.
  - 5. Reviewed shop drawings, product data, and samples.
  - 6. Manufacturer's instruction for assembly, installation, and adjusting.
- 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. Specifications: Legibly mark and record at each product section description of actual products installed, including the following:

1. Manufacturer's name and product model and number.
  2. Product substitutions or alternates utilized.
  3. Changes made by Addenda and modifications.
- F. Record Drawings and Shop Drawings: Legibly mark each item to record actual construction including:
1. Measured locations of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of the Work.
  2. Field changes of dimension and detail.
  3. Details not on original Contract drawings.

### **3.02 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.

### **3.03 OPERATION AND MAINTENANCE DATA FOR MATERIALS AND FINISHES**

- A. For Each Product, Applied Material, and Finish:
  1. Product data, with catalog number, size, composition, and color and texture designations.
  2. Information for re-ordering custom manufactured products.
- B. Instructions for Care and Maintenance: Manufacturer's recommendations for cleaning agents and methods, precautions against detrimental cleaning agents and methods, and recommended schedule for cleaning and maintenance.
- C. Moisture protection and weather-exposed products: Include product data listing applicable reference standards, chemical composition, and details of installation. Provide recommendations for inspections, maintenance, and repair.
- D. Additional information as specified in individual product specification sections.
- E. Where additional instructions are required, beyond the manufacturer's standard printed instructions, have instructions prepared by personnel experienced in the operation and maintenance of the specific products.

### **3.04 OPERATION AND MAINTENANCE DATA FOR EQUIPMENT AND SYSTEMS**

- A. For Each Item of Equipment and Each System:
  1. Description of unit or system, and component parts.
  2. Identify function, normal operating characteristics, and limiting conditions.
  3. Include performance curves, with engineering data and tests.
  4. Complete nomenclature and model number of replaceable parts.
- B. Where additional instructions are required, beyond the manufacturer's standard printed instructions, have instructions prepared by personnel experienced in the operation and maintenance of the specific products.
- C. Panelboard Circuit Directories: Provide electrical service characteristics, controls, and communications; typed.
- D. Include color coded wiring diagrams as installed.
- E. Operating Procedures: Include start-up, break-in, and routine normal operating instructions and sequences. Include regulation, control, stopping, shut-down, and emergency instructions. Include summer, winter, and any special operating instructions.

- F. Maintenance Requirements: Include routine procedures and guide for preventative maintenance and trouble shooting; disassembly, repair, and reassembly instructions; and alignment, adjusting, balancing, and checking instructions.
- G. Provide servicing and lubrication schedule, and list of lubricants required.
- H. Include manufacturer's printed operation and maintenance instructions.
- I. Include sequence of operation by controls manufacturer.
- J. Provide original manufacturer's parts list, illustrations, assembly drawings, and diagrams required for maintenance.
- K. Provide control diagrams by controls manufacturer as installed.
- L. Provide charts of valve tag numbers, with location and function of each valve, keyed to flow and control diagrams.
- M. Include test and balancing reports.
- N. Additional Requirements: As specified in individual product specification sections.

### **3.05 ASSEMBLY OF OPERATION AND MAINTENANCE MANUALS**

- A. Assemble operation and maintenance data into durable manuals for Owner's personnel use, with data arranged in the same sequence as, and identified by, the specification sections.
  - 1. Electronic Documents: Submit one electronic copy in PDF format organized in same manner as printed manual. Coordinate with Owner for transmission of electronic document.
- B. Where systems involve more than one specification section, provide separate tabbed divider for each system.
- C. Binders: Commercial quality, 8-1/2 by 11 inch three D side ring binders with durable plastic covers; 2 inch maximum ring size. When multiple binders are used, correlate data into related consistent groupings.
- D. Cover: Identify each binder with typed or printed title OPERATION AND MAINTENANCE INSTRUCTIONS; identify title of Project; identify subject matter of contents.
- E. Project Directory: Title and address of Project; names, addresses, and telephone numbers of Architect, Consultants, Contractor and subcontractors, with names of responsible parties.
- F. Tables of Contents: List every item separated by a divider, using the same identification as on the divider tab; where multiple volumes are required, include all volumes Tables of Contents in each volume, with the current volume clearly identified.
- G. Dividers: Provide tabbed dividers for each separate product and system; identify the contents on the divider tab; immediately following the divider tab include a description of product and major component parts of equipment.
- H. Text: Manufacturer's printed data, or typewritten data on 20 pound paper.
- I. Drawings: Provide with reinforced punched binder tab. Bind in with text; fold larger drawings to size of text pages.
- J. Arrangement of Contents: Organize each volume in parts as follows:
  - 1. Project Directory.
  - 2. Table of Contents, of all volumes, and of this volume.
  - 3. Operation and Maintenance Data: Arranged by system, then by product category.
    - a. Source data.
    - b. Product data, shop drawings, and other submittals.
    - c. Operation and maintenance data.
    - d. Field quality control data.
    - e. Original warranties and bonds.

### **3.06 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.
- E. Include originals of each in operation and maintenance manuals, indexed separately on Table of Contents.

**END OF SECTION**

**SECTION 02 41 00**  
**DEMOLITION**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

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

**1.02 RELATED REQUIREMENTS**

- A. Section 01 10 00 - Summary: Limitations on Contractor's use of site and premises.
- B. Section 01 10 00 - Summary: Sequencing and staging requirements.
- C. Section 01 10 00 - Summary: Description of items to be removed by Owner.
- D. Section 01 10 00 - Summary: Description of items to be salvaged or removed for re-use by Contractor.
- E. Section 01 50 00 - Temporary Facilities and Controls: Site fences, security, protective barriers, and waste removal.
- F. Section 01 60 00 - Product Requirements: Handling and storage of items removed for salvage and relocation.
- G. Section 01 70 00 - 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.
- H. Section 01 74 19 - Construction Waste Management and Disposal: Limitations on disposal of removed materials; requirements for recycling.

**1.03 DEFINITIONS**

- A. Demolition: Dismantle, raze, destroy or wreck any building or structure or any part thereof.
- B. Remove: Detach or dismantle items from existing construction and dispose of them off site, unless items are indicated to be salvaged or reinstalled.
- C. Remove and Salvage: Detach or dismantle items from existing construction in a manner to prevent damage. Clean, package, label and deliver salvaged items to Owner in ready-for-reuse condition.
- D. Remove and Reinstall: Detach or dismantle items from existing construction in a manner to prevent damage. Clean and prepare for reuse and reinstall where indicated.
- E. Existing to Remain: Designation for existing items that are not to be removed and that are not otherwise indicated to be salvaged or reinstalled.

**1.04 REFERENCE STANDARDS**

- A. 29 CFR 1926 - Safety and Health Regulations for Construction.
- B. NFPA 241 - Standard for Safeguarding Construction, Alteration, and Demolition Operations.

**1.05 SUBMITTALS**

- A. See Section 01 30 00 - Administrative Requirements for submittal procedures.
- B. Site Plan: Indicate:
  - 1. Vegetation to be protected.
  - 2. Areas for temporary construction and field offices.
  - 3. Areas for temporary and permanent placement of removed materials.
- C. Demolition Plan: Submit demolition plan as required by OSHA and local AHJs.
  - 1. Indicate extent of demolition, removal sequencing, bracing and shoring, and location and construction of barricades and fences.
  - 2. Summary of safety procedures.
  - 3. Schedule of building demolition activities with starting and ending dates for each activity.
  - 4. Include measures for environmental protection, for dust control, and for noise control.
  - 5. Include construction waste management plan (see Section 01 74 19).

- 6. Detail special measures proposed to protect adjacent buildings to remain including means of egress from those buildings.
- D. Pre-demolition photographs or video.
- E. Inventory of items that have been removed and salvaged.
- F. Project Record Documents: Accurately record actual locations of capped and active utilities and subsurface construction.

#### **1.06 QUALITY ASSURANCE**

- A. Regulatory Requirements: Comply with governing EPA notification regulations before beginning demolition. Comply with hauling and disposal regulations of authorities having jurisdiction.
- B. Standards: Comply with ASSE A10.6 and NFPA 241.

#### **1.07 FIELD CONDITIONS**

- A. Spaces immediately adjacent to demolition area will be occupied. Conduct demolition so operations of occupied spaces will not be disrupted.
  - 1. Provide not less than 72 hours' notice of activities that will affect operations of adjacent occupied spaces.
  - 2. Maintain access to existing walkways, exits, and other facilities used by occupants of adjacent spaces.
    - a. Do not close or obstruct walkways, exits, or other facilities used by occupants of adjacent spaces without written permission from authorities having jurisdiction.
- B. Conditions existing at time of inspection for bidding purpose will be maintained by Owner as far as practical.
- C. Hazardous Materials: It is not expected that hazardous materials will be encountered in the Work.
  - 1. If materials suspected of containing hazardous materials are encountered, do not disturb; immediately notify Architect and Owner. Hazardous materials will be removed by Owner under a separate contract.
- D. On-site storage or sale of removed items or materials is not permitted.
- E. Arrange demolition schedule so as not to interfere with Owner's on-site operations or operations of adjacent occupied spaces.

### **PART 2 PRODUCTS -- NOT USED**

### **PART 3 EXECUTION**

#### **3.01 DEMOLITION**

- A. Selective demolition of the building as required to accommodate new work as shown.
- B. Remove portions of existing building as indicated in demolition plans.
- C. Remove items indicated, for salvage and relocation, including, but not limited to:
  - 1. Items indicated in demolition plans.

#### **3.02 MATERIALS OWNERSHIP**

- A. Unless otherwise indicated, demolition waste becomes property of Contractor.
- B. Historic items, relics, antiques, and similar objects including, but not limited to, cornerstones and their contents, commemorative plaques and tablets, and other items of interest or value to Owner that may be uncovered during demolition remain the property of Owner.
  - 1. Carefully salvage in a manner to prevent damage and promptly return to Owner.

#### **3.03 GENERAL PROCEDURES AND PROJECT CONDITIONS**

- A. Comply with requirements in Section 01 70 00.
- B. Comply with applicable codes and regulations for demolition operations and safety of adjacent structures and the public.
  - 1. Obtain required permits.

2. Comply with applicable requirements of NFPA 241.
  3. Use of explosives is not permitted.
  4. 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.
  5. Provide, erect, and maintain temporary barriers and security devices.
  6. Use physical barriers to prevent access to areas that could be hazardous to workers or the public.
    - a. Remove temporary barriers and protections where hazards no longer exist.
    - b. Where open excavations or other hazardous conditions remain, leave temporary barriers and protections in place.
    - c. See Section 015000 for additional requirements.
  7. Conduct operations to minimize effects on and interference with adjacent structures and occupants.
  8. Do not close or obstruct roadways or sidewalks without permits from authority having jurisdiction.
  9. 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.
  10. Obtain written permission from owners of adjacent properties when demolition equipment will traverse, infringe upon, or limit access to their property.
- C. Do not begin removal until receipt of notification to proceed from Owner.
- D. Do not begin removal until built elements to be salvaged or relocated have been removed.
- E. Do not begin removal until vegetation to be relocated has been removed and vegetation to remain has been protected from damage.
- F. Protect existing structures and other elements to remain in place and not 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.
- G. 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.
- H. Hazardous Materials:
  1. If hazardous materials are discovered during removal operations, stop work and notify Architect and Owner; hazardous materials include regulated asbestos containing materials, lead, PCBs, and mercury.
- I. Perform demolition in a manner that maximizes salvage and recycling of materials.
  1. Comply with requirements of Section 01 74 19 - Construction Waste Management and Disposal.
  2. Dismantle existing construction and separate materials.
  3. Set aside reusable, recyclable, and salvageable materials; store and deliver to collection point or point of reuse.

### **3.04 EXISTING UTILITIES**

- A. Coordinate work with utility companies. Notify utilities before starting work, comply with their requirements, and 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.
- H. Prepare building demolition areas by disconnecting and capping utilities outside the demolition zone. Identify and mark, in same manner as other utilities to remain, utilities to be reconnected.

### **3.05 SELECTIVE DEMOLITION FOR ALTERATIONS**

- A. Existing construction and utilities indicated on drawings are based on casual field observation and existing record documents only.
  - 1. Verify 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. Cooperate with the Owner and Authorities Having Jurisdiction to provide Interim Life Safety Measures (ILSM) in all areas affected by demolition or construction operations. ILSM consists of the following measures:
  - 1. Ensure exits provide an unobstructed egress. Building areas under construction must maintain escape facilities for construction workers at all times. Provide alternate routes around closed or obstructed traffic-ways if required by authorities having jurisdiction.
  - 2. Ensure fire alarm, detection and suppression systems are not impaired. Provide temporary systems if necessary.
  - 3. Ensure temporary construction partitions are smoke-tight and built of non-combustible or limited combustible materials that will not contribute to the development or spread of fire.
  - 4. Use water mist and other suitable methods to limit spread of dust and dirt. Comply with governing environmental-protection regulations.
  - 5. Develop and enforce storage, housekeeping, and debris removal practices that reduce the flammable and combustible fire load of the building to the lowest level necessary for daily operations as stated in the general conditions.
  - 6. Provide hazard surveillance of building, grounds, and equipment with attention to construction areas, construction storage, and field offices.
  - 7. Follow NFPA 241 guidelines pertaining to safe-guarding for construction and demolition processes.
  - 8. Follow NFPA 1 guidelines pertaining to fire prevention measures.
- C. Maintain weatherproof exterior building enclosure, except for interruptions required for replacement or modifications; prevent water and humidity damage.
- D. Salvaged Items: Comply with the following:
  - 1. Clean salvaged items of dirt and demolition debris.
  - 2. Pack or crate items after cleaning. Identify contents of containers.
  - 3. Protect items from damage during transport and storage.
- E. Remove existing work as indicated and required to accomplish new work.
  - 1. Remove rotted wood, corroded metals, and deteriorated masonry and concrete; replace with new construction indicated.
  - 2. Remove items indicated on drawings.
  - 3. Inventory and record the condition of items to be removed and salvaged.
- F. Services including, but not limited to, HVAC, Plumbing, Fire Protection, Electrical, and Telecommunications: Remove existing systems and equipment as indicated.
  - 1. Maintain existing active systems to remain in operation, and 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. See Section 01 10 00 - Summary for limitations on outages and required notifications.
  4. Verify that abandoned services serve only abandoned facilities before removal.
  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.
- G. Protect existing work to remain.
1. Prevent movement of structure. Provide shoring and bracing as required.
  2. Perform cutting to accomplish removal work neatly and as specified for cutting new work.
  3. Repair adjacent construction and finishes damaged during removal work.
  4. Patch to match new work.

### **3.06 DEBRIS AND WASTE REMOVAL**

- A. Remove debris, junk, and trash from site.
1. Do not allow demolished materials to accumulate on-site.
  2. Locate building demolition equipment and remove debris and materials so as not to impose excessive loads on supporting walls, floors, or framing.
  3. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
  4. Remove debris from elevated portions of the building by chute, hoist, or other device that will convey debris to grade level in a controlled descent.
  5. Project Coordinator to provide dumpster and coordinate with waste hauler for drop off and pick-up.
  6. Dumpster to be located as agreed upon at Pre-Bid meeting or by Owner.
- B. Remove materials not to be reused on site; comply with requirements of Section 01 74 19 - Waste Management.
- C. Leave site in clean condition, ready for subsequent work.
- D. Clean up spillage and wind-blown debris from public and private lands.

**END OF SECTION**



**SECTION 06 10 00**  
**ROUGH CARPENTRY**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Roofing nailers.
- B. Preservative treated wood materials.
- C. Fire retardant treated wood materials.
- D. Concealed wood blocking, nailers, and supports.

**1.02 RELATED REQUIREMENTS**

- A. Section 07 62 00 - Sheet Metal Flashing and Trim

**1.03 REFERENCE STANDARDS**

- A. AWPA U1 - Use Category System: User Specification for Treated Wood.
- B. PS 1 - Structural Plywood.
- C. PS 20 - American Softwood Lumber Standard.

**1.04 SUBMITTALS**

- A. See Section 01 30 00 - Administrative Requirements for submittal procedures.
- B. Product Data: Provide technical data on wood preservative materials and construction panel materials.
- C. Manufacturer's Certificate: Certify that wood products supplied for rough carpentry meet or exceed specified requirements.

**1.05 QUALITY ASSURANCE**

- A. Lumber: Comply with PS 20 and approved grading rules and inspection agencies.
- B. 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.

**1.06 DELIVERY, STORAGE, AND HANDLING**

- A. General: Cover wood products to protect against moisture. Support stacked products to prevent deformation and to allow air circulation.
- B. Fire Retardant Treated Wood: Prevent exposure to precipitation during shipping, storage, and installation.

**PART 2 PRODUCTS**

**2.01 GENERAL REQUIREMENTS**

- A. Dimension Lumber: Comply with PS 20 and requirements of specified grading agencies.
  - 1. Species: Douglas Fir-Larch, unless otherwise indicated.
  - 2. If no species is specified, provide species graded by the agency specified; if no grading agency is specified, provide lumber graded by grading agency meeting the specified requirements.
  - 3. Grading Agency: Grading agency whose rules are approved by the Board of Review, American Lumber Standard Committee at [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.
  - 4. Lumber of other species or grades is acceptable provided structural and appearance characteristics are equivalent to or better than products specified.
- B. Engineered wood products containing added urea-formaldehyde are not permitted.

**2.02 DIMENSION LUMBER FOR CONCEALED APPLICATIONS**

- A. Sizes: Nominal sizes as indicated on drawings, S4S.

- B. Moisture Content: S-dry or MC19.
- C. Miscellaneous Framing, Blocking, Nailers, Grounds, and Furring:
  - 1. Lumber: S4S, No. 1 or Construction Grade.
  - 2. Boards: Standard or No. 3.

### **2.03 CONSTRUCTION PANELS**

- A. Other Applications:
  - 1. Plywood Concealed From View But Located Within Exterior Enclosure: PS 1, C-C Plugged or better, Exterior grade.
  - 2. Plywood Exposed to View But Not Exposed to Weather: PS 1, A-D, or better.
  - 3. Other Locations: PS 1, C-D Plugged or better.

### **2.04 ACCESSORIES**

- A. Fasteners and Anchors:
  - 1. Metal and Finish: Stainless steel for high humidity and preservative-treated wood locations, unfinished steel elsewhere.
  - 2. Anchors: as follows:
    - a. Toggle bolt type for anchorage to hollow masonry.
    - b. Expansion shield and lag bolt type for anchorage to solid masonry or concrete.
    - c. Bolt or ballistic fastener for anchorages to steel.
  - 3. Wood Screws: ASME B18.6.1.
  - 4. Lag Bolts: ASME B18.2.1.
  - 5. Power Driven Fasteners: Fastener systems with an evaluation report acceptable to authorities having jurisdiction, based on ACC-ES AC70.

### **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 exposed to weather.
    - c. Treat lumber in contact with masonry or concrete.
    - d. Treat lumber less than 18 inches above grade.
    - e. Treat lumber in other locations as indicated.
  - 2. Preservative Pressure Treatment of Plywood Above Grade: AWPA U1, Use Category UC2 and UC3B, Commodity Specification F using waterborne preservative.
    - a. Kiln dry plywood after treatment to maximum moisture content of 19 percent.
    - b. Treat plywood in contact with masonry or concrete.
    - c. Treat plywood less than 18 inches above grade.
    - d. Treat plywood in other locations as indicated.

## **PART 3 EXECUTION**

### **3.01 PREPARATION**

- A. Coordinate installation of rough carpentry members specified in other sections.

### **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 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 authorities having jurisdiction may be used in lieu of solid wood blocking.
- C. In metal stud walls, provide continuous blocking around door and window openings for anchorage of frames, securely attached to stud framing.
- D. 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.

### **3.04 ROOF-RELATED CARPENTRY**

- A. Coordinate installation of roofing carpentry with deck construction, framing of roof openings, and roofing assembly installation.

### **3.05 CLEANING**

- A. Waste 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 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**



**SECTION 07 01 50.19**  
**ROOF REPAIR AND PATCHING**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Tie-ins to and patching of existing membrane roofing system as required for new work.
- B. Modification or removal/replacement of existing standing seam roofing system as required for new work.
- C. Removal of existing flashing and counterflashings, as required for new work.
- D. Temporary roofing protection.

**1.02 RELATED REQUIREMENTS**

- A. Section 02 41 00 - Demolition; disposal of materials
- B. Section 06 10 00 - Rough Carpentry: Wood nailers and curbs.
- C. Section 07 62 00 - Sheet Metal Flashing and Trim: Replacement of flashing and counterflashings.

**1.03 REFERENCE STANDARDS**

- A. ASTM C208 - Standard Specification for Cellulosic Fiber Insulating Board.
- B. ASTM C1177/C1177M - Standard Specification for Glass Mat Gypsum Substrate for Use as Sheathing.
- C. FM DS 1-28 - Wind Design; Factory Mutual Research Corporation; 2007.
- D. NRCA ML104 - The NRCA Roofing and Waterproofing Manual; National Roofing Contractors Association; Fifth Edition, with interim updates.

**1.04 ADMINISTRATIVE REQUIREMENTS**

- A. Coordinate with affected mechanical and electrical work associated with roof penetrations.
- B. Preinstallation Meeting: Convene one week before starting work of this section.
  - 1. Attendees:
    - a. Contractor.
    - b. Owner or Owner's construction representative.
    - c. Installer.
    - d. Roofing system manufacturer's field representative.
    - e. Additional installers of any associated work.
  - 2. Meeting Agenda: Provide agenda to participants prior to meeting in preparation for discussions on the following:
    - a. Removal and installation schedule.
    - b. Necessary preparatory work.
    - c. Protection before, during, and after wall system installation.
    - d. Review weather and forecasted weather conditions and procedures for coping with unfavorable conditions, including provision of temporary roofing.
    - e. Transitions and connection to and with other work.
    - f. Requirements to maintain existing roof warranty.

**1.05 SUBMITTALS**

- A. See Section 01 30 00 - Administrative Requirements for submittal procedures.
- B. Product Data: Provide data indicating membrane materials, insulation, surfacing, and fasteners used for patching existing membrane.
- C. Shop Drawings: Indicate joint or termination detail conditions, conditions of interface with existing materials.

## **1.06 QUALITY ASSURANCE**

- A. Installer Qualifications: Company specializing in performing work of the type specified and approved by manufacturers of materials affected.

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

- A. Ensure storage and staging of materials does not exceed static and dynamic load-bearing capacities of roof decking.

## **1.08 FIELD CONDITIONS**

- A. Do not remove existing roofing membrane when weather conditions threaten the integrity of the building contents or intended continued occupancy.
- B. Remove only existing roofing materials that can be replaced with new materials the same day.
- C. Coordinate the work with other affected trades and building occupants.
- D. Coordinate with roof accessories and sheet metal accessory items, including other devices to be coordinated with the roofing work as specified in other sections to avoid conflict or omission in waterproofing systems and to provide watertight installation.
- E. Maintain continuous temporary protection prior to and during installation of new roofing system.
- F. Owner will occupy building areas directly below re-roofing area.
  - 1. Provide Owner with at least 72 hours written notice of roofing activities that may affect their operations and to allow them to prepare for upcoming activities as necessary.
  - 2. Maintain access of Owner's personnel to corridors, existing walkways, and adjacent buildings.

## **1.09 WARRANTY**

- A. See Section 01 78 00 - Closeout Submittals for additional warranty requirements.
- B. Existing Warranties: Perform this work using methods and materials that will maintain existing roof system warranties.
  - 1. Notify existing roof system warrantor prior to starting this work and obtain written instructions for procedures necessary to maintain this existing warranty.
  - 2. Upon completion of this work, notify warrantor of reroofing completion and obtain documentation to verify that existing roofing system has been inspected and warranty is still in effect.
    - a. Submit documentation upon project closeout.

## **PART 2 PRODUCTS**

### **2.01 COMPONENTS**

- A. See the following sections for additional information on components relating to this work:
  - 1. Remove existing flashing and counterflashings in preparation for replacement of these materials as part of this work, see Section 07 62 00 for material requirements.

### **2.02 MATERIALS**

- A. Patching Materials: Provide necessary materials in accordance with requirements of existing roofing system.
- B. Temporary Protection: Sheet fiber reinforced plastic; provide weights to retain sheeting in position.
  - 1. Contractor's responsibility to select appropriate materials for temporary protection of roofing areas as determined necessary for this work.

### **2.03 ACCESSORIES**

- A. Fasteners: Type and size as required and compatible with existing and new roofing system to resist local wind uplift.

## **PART 3 EXECUTION**

### **3.01 MATERIAL REMOVAL**

- A. Remove only existing roofing materials that can be replaced with new materials as the weather will permit.
- B. Fold up metal counter flashings to permit access to top edge of base flashings.
  - 1. Remove metal counter flashings if they cannot be folded up.

### **3.02 PROTECTION**

- A. Provide protection of existing roofing system that is not having work performed on it.
- B. Provide temporary protective sheeting over uncovered deck surfaces.
- C. Turn sheeting up and over parapets and curbing. Retain sheeting in position with weights.
- D. Provide for surface drainage from sheeting to existing drainage facilities.
- E. Do not permit traffic over unprotected or repaired deck surface.

**END OF SECTION**



**SECTION 07 42 13  
METAL WALL PANEL / RAINSCREEN ASSEMBLY**

**PART 1 - GENERAL**

**1.1 SUMMARY**

- A. Work described in this section includes a complete metal wall panel / rainscreen assembly with the following components:
  - 1. Liquid Applied Vapor Permeable Air and Water Barrier: including all necessary flashing, tapes, mastics, and sealants to insure a complete water resistive, vapor permeable air barrier wall system
  - 2. Thermal Building Insulation
  - 3. Vented Metal Subframing
  - 4. Metal Wall Panels (MWP-1): single-skin, labyrinth-joint metal cladding panels for rainscreen-principle wall system, complete with sub-structural metal framing, perimeter and penetration flashing, and closures
  
- B. Related work specified elsewhere:
  - 1. SECTION 074113: Metal Roof Panels
  - 2. SECTION 074293: Metal Soffit Panels
  - 3. SECTION 077213: Roofing Specialties

**1.2 DESIGN & PERFORMANCE CRITERIA – Liquid Applied Vapor Permeable Air & Water Barrier (AWB)**

- A. General Performance: liquid applied water resistive air barrier system shall be furnished and installed without failure due to defective manufacture, application, installation, or other defects in construction.
- B. Air Leakage.
  - 1. The fluid applied air barrier shall have less than 0.040 cfm/ft<sup>2</sup> (0.20 L/s/m<sup>2</sup>) of air leakage when tested in accordance with ASTM E2357.
  - 2. The fluid applied air barrier shall have less than 0.004 cfm/ft<sup>2</sup> (0.02 L/s/m<sup>2</sup>) at 1.57 psf (75 Pa) when tested in accordance with ASTM E2178.
- C. Vapor Permeance: The liquid applied air barrier shall be vapor permeable with a minimum vapor transmission rate of greater than 6.5 perms when tested in accordance with ASTM E96, Method B.
- D. Application: Product shall be a nominal 0.064 inch wet (40 mils) thickness, with dry film thickness of installed product measuring a minimum of 0.040 inch (40 mils) with a comb gauge.
- E. Peel Adhesion: The fluid applied air barrier shall have a minimum peel adhesion to concrete and exterior sheathing of at least 20 lbf/in (35N/mm) when tested in accordance with ASTM D903.
- F. Nail Seal ability: The liquid applied air barrier shall comply with and pass ASTM D 1970.
- G. Volume by Solids (by weight): The liquid applied air barrier shall have a volume percentage of solids of no less than 66%.

- H. Low Temperature Flexibility: The liquid applied air barrier shall be tested in accordance with the low temperature flexibility testing of ASTM D1970 and pass at a temperature of -15°F.
- I. Elongation: The liquid applied air barrier shall have a minimum elongation of 600% when tested in accordance with ASTM D412 Die C.
- J. Surface Burning Characteristics: The liquid applied air barrier shall have been rated as Class material with a flame spread rating of less than and a smoke-development index of less than when tested in accordance with ASTM E84.

### **1.3 DESIGN AND PERFORMANCE CRITERIA – Thermal Board Insulation**

- A. General Performance: Continuous exterior rigid mineral fiber board thermal insulation shall satisfy all requirements of ASTM E612, Type IV-B, shall be free of defects, and meet each of the performance requirements specified herein.
- B. Thermal Resistance:
  - 1. At 25°F, the R-value per inch thickness shall be 4.3 hr·ft<sup>2</sup>·°F/BTU minimum, in accordance with ASTM C518/C177.
  - 2. At 75°F, the R-value (RSI-value) per inch (25.4mm) thickness shall be 3.9 hr·ft<sup>2</sup>·°F/BTU minimum, in accordance with ASTM C518/C177.
- C. Fire and Heat Performance:
  - 1. Surface Burning Characteristics: Flame spread rating shall be 0 and smoke development rating shall be 0 when tested in accordance with ASTM E84.
  - 2. Combustibility: The board insulation shall be rated as “Non-Combustible” when tested in accordance with ULC S114.
  - 3. The board insulation shall not ignite, burn, support combustion, or release flammable vapors when subjected to fire or heat at 1,382°F, in accordance with ASTM E136.
  - 4. The board insulation shall be considered Non-Combustible when tested in accordance with NFPA 268, and shall be deemed to be acceptable for use in exterior walls of Type I, II, III, and IV building construction without any constraints, such as use of a thermal barrier, as may be required by NFPA 285.
  - 5. The board insulation shall be rated for a 1,200°F service temperature, as determined by testing in accordance with ASTM C411.
- D. Moisture Resistance:
  - 1. Water absorption, as measured in accordance with ASTM C209, shall not exceed 1.2%.
  - 2. Water vapor sorption, as measured in accordance with ASTM C1104, shall not exceed 0.30%.
  - 3. Water vapor transmission, as measured in accordance with ASTM E96, shall be at least 40 perms.
- E. Dimensional Stability and Physical Properties:
  - 1. The board insulation shall have a minimum density of 11.0 pcf as measured in accordance with ASTM C612.
  - 2. The board insulation shall have a minimum compressive strength of 1,220 psf at 10% maximum deformation when tested in accordance with ASTM C165.

3. The board insulation shall have a maximum of 0.38% linear shrinkage at 1,200°F when tested in accordance with ASTM C356.
  4. The board insulation shall exhibit dimensional stability of a maximum linear change of 0.1% after 7 days in accordance with ASTM D2126 at each of the following climate conditions:
    - a. 40°F with ambient relative humidity.
    - b. 200°F with ambient relative humidity.
    - c. 158°F with 97% relative humidity.
- F. Acoustical Performance: When tested in accordance with ASTM C423, a 2-inch insulation board shall have an NRC rating of 0.85 minimum.
- G. Corrosion Resistance:
1. The insulation board shall be rated “non-corrosive” to steel when tested in accordance with ASTM C665.
  2. The insulation board shall conform with the requirements of ASTM C795 with respect to corrosion resistance in contact with stainless steel materials.

#### **1.4 DESIGN AND PERFORMANCE CRITERIA - Metal Wall Panels (MWP-1):**

- A. General Performance: Metal wall panel assemblies shall be furnished and installed without failure due to defective manufacture, fabrication, installation, or other defects in construction.
- B. Rainscreen Wall System Performance Rating. The metal wall panel assemblies, and the substructural furring/framing system supporting the panels shall be tested in accordance with AAMA 509 and achieve the following performance results:
1. Water Infiltration: The water infiltration performance of the metal wall panel assembly shall not exceed the classification of W-1.
  2. Back Ventilation: The air ventilation performance of the rainscreen cavity air space shall have a minimum classification of V-4.
- C. Thermal Expansion and Contraction.
1. Completed metal wall panel and flashing system shall be capable of withstanding expansion and contraction of components caused by changes in temperature without buckling or reducing performance ability.
  2. The design temperature differential shall be not less than 220 degrees Fahrenheit.
  3. Interface between panel and clip shall provide for unlimited thermal movement in each direction along the longitudinal direction.
- D. Uniform Wind Load Capacity.
1. The installed wall system shall withstand negative wind pressures complying with the following criteria.
    - a. Design Code: ASCE 7-10, Method 2 for Components and Cladding.
    - b. Safety Factor: The metal panel system shall be tested to proof load of 1.5 times the design service load condition, as required by the ASTM E330 method.
  2. The ultimate capacity of the panel system shall be determined based on performance testing in accordance with ASTM E330. The system shall be tested to a proof load that shall be 1.5 times the allowable design service load.

## 1.5 SUBMITTALS

- A. General, Rainscreen Wall Assembly Components: Complete submittals shall be made jointly and simultaneously for all components of the Rainscreen wall assembly, including:
  - 1. Liquid Applied Vapor Permeable Air and Water Barrier
  - 2. Thermal Board Insulation
  - 3. Metal rainscreen wall cladding panels and sub framing components
  - 4. All other trim, flashing, sealants, and components necessary for a complete rainscreen wall assembly as required by these specifications.
- B. Shop drawings:
  - 1. Show complete rain screen wall system with air and water barrier(s), vapor retarder (if applicable), continuous exterior insulation, sub framing system, metal cladding panels, ventilation components, flashings and accessories in elevation, sections, and details. Include metal thicknesses and finishes, panel lengths, joining details, anchorage details, flashings and special fabrication provisions for termination and penetrations. Indicate relationships with adjacent and interfacing work.
  - 2. All components shall be integrated into a single comprehensive and complete shop drawing set prepared by the metal cladding system manufacturer.
  - 3. Shop drawings shall identify each product and component by manufacturer, product name, and thickness, size, style, or other uniquely distinguishing characteristics.
- C. Engineering Calculations: Submit negative wind uplift pressure calculations using the project and building code data listed in 1.4C1. Calculations shall be sealed by a professional engineer licensed to practice structural engineering in the jurisdiction in which the project is located.
- D. Financial Certification: Provide the building owner with a signed and notarized (sealed) affidavit by an officer of the panel system manufacturer which confirms a current minimum corporate asset-to-liability ratio of not less than 3:1 for the panel manufacturer, or its parent corporation. Financial support information and affidavit must be dated within 30 days prior to the product submittal.
- E. Design Test Reports.
  - 1. Submit copies of design test reports for each of the performance testing standards listed in specification article 1.4.
  - 2. Test reports shall be performed by independent, accredited testing laboratories, and shall bear the seal of a registered professional engineer.
- F. Warranty: Provide unexecuted specimen warranty documents for each warranty as required in specification article 1.12.
- G. Samples.
  - 1. Submit sample of panel section, at least 6" x 6" showing seam profile, and also a sample of color selected.
  - 2. Submit sample of panel clip, foam closures, and field applied sealants.

## 1.6 QUALITY CRITERIA/INSTALLER QUALIFICATIONS

- A. Engage an experienced metal wall panel contractor (erector) to install wall panel system who has a minimum of (5) five years' experience specializing in the installation of metal wall systems.
- B. Contractor must be certified by manufacturer specified as a supplier of the metal wall system and obtain written certification from manufacturer that installer is approved for installation of the specified system.
- C. Successful contractors must obtain all components of the Rainscreen wall system from a single manufacturer. Any secondary products that are required which cannot be supplied by the specified manufacturer must be recommended and approved in writing by primary manufacturer prior to bidding.
- D. Sole Source Requirements: All material and accessories for the system specified here within and all systems specified elsewhere listed in Section 1.2 shall be fabricated and supplied by a single manufacturer. All specified warranties within these related specifications must be provided and endorsed by the single manufacturer. A manufacturer who cannot fabricate and supply all systems will not be accepted. Please refer to Section 1.5 for additional manufacturer requirements and PART 2: Products for product/manufacturer substitution requirements.
- E. Air Barrier Quality Assurance Auditing.
  - 1. The air barrier supplier shall provide an accredited third-party air barrier auditor/inspector at the beginning and end of the air barrier installation, and at no fewer intermediate intervals than once per 20,000 square feet of air barrier installation.
  - 2. The air barrier auditor/inspector shall have sufficient credentials to satisfy the architect, such as Air Barrier Association of America (ABAA) certification, RCI Registered Exterior Wall Consultant, or similar professional experience and credentials.
  - 3. The air barrier installer shall perform daily inspections, tests, reporting, and other information as requested by the third-party auditor/inspector.
  - 4. The air barrier installer shall coordinate, cooperate, and comply with the recommendations of the third-party auditor/inspector.

## 1.7 MOCK-UPS.

- A. Where directed by architect, construct typical exterior wall panel, 6-foot long by 6-foot wide incorporating the sheathing board or substrate, sill pan protection system, window frame and attachment method, clips, sub framing, attachment of insulation and detailing of water-resistive vapor permeable air barrier membrane application and lap seams.
  - 1. Air Leakage Tests: Test mock-up for air leakage location in accordance with ASTM E1186 and for air leakage quantity in accordance with ASTM E783. Use smoke tracer to locate sources of air leakage. Deficiencies shall include air leakage in excess of 0.04 cfm/ft<sup>2</sup> and unsatisfactory workmanship.
  - 2. Water Penetration: Test mock-up for water leakage in accordance with ASTM E1105. Deficiencies shall include uncontrolled water leakage and unsatisfactory workmanship.

3. Membrane Adhesion: Test mock-up of membrane for adhesion in accordance with ASTM D 4541 using a Type 1 pull tester except that the disk used shall be 4-inches in diameter and the membrane shall be cut through to separate the material attached to the disk from the surrounding material. Perform test after curing period recommended by the supplier. Record mode of failure and area which failed in accordance with ASTM D 4541. When the air barrier material supplier has established a minimum adhesion level for the product on the particular substrate, the inspection report shall indicate whether this requirement has been met. Where the supplier has not declared a minimum adhesion value for their product/substrate combination, then the inspector shall simply record the value.
4. Document and correct deficiencies in mock-ups and tests. Retest until satisfactory results are obtained.

## **1.8 DELIVERY, STORAGE, AND HANDLING**

- A. Inspect materials upon delivery.
- B. Handle materials to prevent damage.
- C. Store materials off ground providing for drainage; under cover providing for air circulation; and protected from any debris.

## **1.9 PROJECT CONDITIONS**

- A. Weather Limitations: Proceed with installation only when existing and forecasted weather conditions permit metal wall panel work to be performed according to manufacturer's written instructions and warranty requirements.
- B. Field Measurements: Verify actual dimensions of construction contiguous with metal wall panels by field measurements before fabrication.

## **1.10 WARRANTIES**

- A. Endorse and forward to owner the following warranties:
  1. Manufacturer's standard material warranty in which manufacturer agrees to provide replacement material for the fluid applied water-resistive vapor permeable air barrier installed in accordance with manufacturer's instructions that fails due to material defects within three (3) years of the date of Substantial Completion.
  2. Installer's three (3) year warranty from date of Substantial Completion, including all components of the air and water barrier assembly, against failures including loss of airtight seal, loss of watertight seal, loss of adhesion, loss of cohesion, failure to cure properly.
  3. Special Rainscreen System Water Tightness Warranty: The water-resistive air barrier supplier shall provide a ten (10) year warranty from the date of Substantial Completion against uncontrolled water leakage to the interior of the building. The warranty shall be identified by manufacturer, product name, and model number each component of the Rainscreen wall system, including each of those components listed in Article 1.5 A of this specification.
- B. Warranties shall commence on the date of substantial completion.

## 1.11 SPECIAL INSPECTIONS

- A. Air and water barrier manufacturers shall provide scheduled field inspections which shall include written reports. Inspections shall be conducted by a full-time employee of the air and water barrier manufacturer. A third-party inspector, approved by the air and water barrier manufacturer, is also acceptable. The field inspector reserves the right to review and report to the project architect the level of acceptability of work completed and to subsequently issue a report of items not acceptable—if required. Do not cover Work of this Section until testing and inspection is accepted.
- B. Remove and replace applications of air and water barrier membrane system where inspections indicate that they do not comply with specified requirements.
  - 1. Installer's 2-year warranty covering wall panel system installation and watertightness.
- C. Warranties shall commence on the date of substantial completion.

## PART 2 - PRODUCTS

### 2.1 PANEL MATERIALS

- A. Painted Aluminum Sheet.
  - 1. Recycle Content: Provide steel sheets with average recycled content such that postconsumer recycled content plus one-half of preconsumer recycled content is at least 45 percent.
  - 2. 0.080"aluminum alloy 3003, 3004, 3005, or 3105 with H14 or H24 heat treatment, as per ASTM B209/209M.
  - 3. Texture: Smooth surface.
  - 4. Exposed Coil-Coated Finish:
    - a. 2-Coat Fluoropolymer: AAMA 621. Fluoropolymer finishes containing not less than 70 percent PVDF resin by weight in color coat. Manufacturers' approved applicator to prepare, pretreat, and apply coating to exposed metal surfaces to comply with coating and resin manufacturers' written instructions. The coating system shall provide nominal 1.0 mil dry film thickness, consisting of primer and color coat.
    - b. Color: See Architectural Drawings
  - 5. Concealed Finish: Apply pretreatment and manufacturer's standard white or light-colored polyester backer finish, consisting of prime coat and wash coat with a minimum total dry film thickness of 0.5 mil.
- B. Panel Sealants:
  - 1. Seam Sealant: Field Applied Butyl-Based, Solvent-Release, One-Part Sealant.
  - 2. Sealant Tape: Non-curing, 100 percent solids, polyisobutylene compound sealant tape with release-paper backing. Provide permanently elastic, nonsag, nontoxic, nonstaining tape 1-inch wide and 1/16-inch thick.
  - 3. Exposed Sealant: ASTM C 920; elastomeric tripolymer, polyurethane, or other advanced polymer sealant; of type, grade, class, and use classifications required to seal joints in metal wall panels and remain weathertight; and as recommended in writing by metal wall panel manufacturer.
  - 4. Concealed Sealant: ASTM C 1311: Butyl-Based, Solvent-Release, One-Part Sealant.

## 2.2 AIR AND WATER BARRIER

### A. Air and Water Barrier Membrane Materials.

1. The basis of design shall be IntelliWrap LVP by Innovative Metals Company, Inc. (IMETCO), Norcross, Georgia (678) 656-1265.
2. Alternative manufacturers are subject to full compliance with specification requirements and shall be submitted for approval as follows.
  - a. Manufacturers not listed above must submit for approval, ten (10) days prior to bid date, the following: Manufacturer's literature; certification of testing in accordance with specification requirements and sections 1.4 and 1.5; sample warranties in accordance with specification section 1.10; installer qualifications in accordance with specification section 1.6, and a list of five (5) similar projects in size and scope of work.
  - b. In addition to the above requirements, requests for substitute systems shall be accompanied by a notarized letter from a corporate officer of the system manufacturer stating that the proposed alternate complies with the warranty requirements section 1.10 A. of this specification.
  - c. No substitutions will be permitted after the bid date of this project.
3. Material: Liquid applied; vapor permeable, water-based polymer modified membrane that cures to form a water resistive air barrier.
4. Application Rate/Thickness: Apply at a rate of 25 to 30 ft<sup>2</sup>/gal to achieve a wet film thickness of 64 mils resulting in a cured dry film thickness of 40 mils.
5. UV Exposure: Air barriers may not be left permanently exposed to sunlight.
6. Application Method: Airless sprayer or brush.
7. Application Temperature: Ambient temperature must be above 40 °F (4 °C) and not expected to drop below stated temperature for 24 hours.
8. Cure Time: Under normal conditions, the product shall be dry to touch in 2 to 4 hours and fully cured within 24 hours of application.
9. VOC Content: Less than 0.17 lb/gal (20 g/l).

### B. Air Barrier Primer: Manufacturer's recommended primer for use with the specified fluid applied air barrier.

### C. Air Barrier Transition and Flashing Membrane.

1. Transition and flashing air barrier membrane shall be IntelliWrap Flashing by IMETCO, a self-adhering, water-resistive, vapor permeable membrane flashing sheet.
2. Roll Dimensions: 11.5-inches (290mm) or 19-inches (480mm) wide by 164-ft (50m) long.

### D. Air Barrier Transition and Flashing Membrane.

1. Transition and flashing air barrier membrane shall be IntelliWrap Flashing SA by IMETCO, a self-adhering, water-resistive, vapor permeable membrane flashing sheet with properties the same as those of the Air Barrier Membrane.
2. Roll Dimensions: 4-inches or 9-inches wide by 75-ft long.

### E. Air Barrier Flashing and Penetration Tapes: Tapes shall be IntelliWrap Tape by IMETCO, a UV stabilized double or single sided moisture-resistant flexible tape with adhesive backing having the following characteristics:

1. IntelliWrap Tape Single-Sided: 2.5-inches wide penetration seam tape.

- F. Preformed Window and Door Corners: Preformed window and door flashing membrane shall be IntelliWrap SA Factory Formed Corners by IMETCO, an 18-inch by 18-inch preformed 90° inside corner membrane with the same vapor permeance, resistance to air leakage, and physical properties as the primary air barrier membrane.
- G. Fasteners: Water resistive air barrier fasteners shall be as follows:
  - 1. Metal frame construction: Use 1-5/8" corrosion resistant screws with 2-inch diameter plastic caps or supplier approved 1-1/4" or 2" gasketed washers.
  - 2. Wood frame construction: Use #4 nails with 1-inch diameter plastic caps.
  - 3. Metal frame construction: Use 3/16" diameter corrosion resistant screws masonry screws with 2-inch diameter plastic caps.

## **2.3 THERMAL BUILDING INSULATION**

- A. Mineral fiber rigid board insulation:
  - 1. The basis of design shall be Rockwool ComfortBoard 110 CIS by Innovative Metals Company, Inc. (IMETCO), Norcross, Georgia (678) 656-1265.
  - 2. Alternate manufacturers are subject to full compliance with specification requirements and shall be submitted for approval as follows.
    - a. Manufacturers not listed above must submit for approval, ten (10) days prior to bid date, the following: Manufacturer's literature; certification of testing in accordance with specification requirements and sections 1.4 and 1.5; sample warranties in accordance with specification section 1.10; installer qualifications in accordance with specification section 1.6, and a list of five (5) similar projects in size and scope of work.
    - b. In addition to the above requirements, requests for substitute systems shall be accompanied by a notarized letter from a corporate officer of the system manufacturer stating that the proposed alternate complies with the warranty requirements section 1.10 A. of this specification.
    - c. No substitutions will be permitted after the bid date of this project.
  - 3. Material: Basalt rock and slag mineral fiber board insulation, Type IV-B in accordance with ASTM C612.
  - 4. Thickness: 2 layer of 2.0-inch providing an overall (assembly) nominal R-value at 75°F equal to R-16.
  - 5. The insulation board size shall be 24-inches x 48-inches or 48-inches x 72-inches.

## **2.4 METAL SUBFRAMING**

- A. Miscellaneous Metal Framing, General: ASTM C 645, cold-formed metallic-coated steel sheet, ASTM A 653, G90 hot-dip galvanized.
- B. Horizontal Hat-shaped Vented Girts:
  - 1. The basis of design shall be Vented Hat Channel by Innovative Metals Company, Inc. (IMETCO), Norcross, Georgia (678) 656-1265.
  - 2. Alternate manufacturers are subject to full compliance with specification requirements and shall be submitted for approval as follows.

- a. Manufacturers not listed above must submit for approval, ten (10) days prior to bid date, the following: Manufacturer's literature; certification of testing in accordance with specification requirements and sections 1.4 and 1.5; sample warranties in accordance with specification section 1.10; installer qualifications in accordance with specification section 1.6, and a list of five (5) similar projects in size and scope of work.
  - b. In addition to the above requirements, requests for substitute systems shall be accompanied by a notarized letter from a corporate officer of the system manufacturer stating that the proposed alternate complies with the warranty requirements section 1.10 A. of this specification.
  - c. No substitutions will be permitted after the bid date of this project.
3. Dimensions:
    - a. Nominal Thickness: (18 gauge) nominal thickness.
    - b. Depth: 7/8 inch nominal.
    - c. Top flange: 2-1/2 inches nominal.
    - d. Bottom Flanges: 1-1/2 inches nominal with 1/4-inch holes punched at 8" on center in each flange.
  4. Free air flow: The vented girt shall not restrict chimney effect air convection in the vertical direction. The vented girt webs shall have slotted holes providing for 31% free air flow and weep holes for water drainage.
  5. Drainage: Web segments of vented girt shall be formed such that when installed in the horizontal orientation the web segments are inclined at least 20 degrees from horizontal to promote drainage and prevent retention of standing water.

## **2.5 METAL WALL PANELS: MWP-1**

- A. General: Provide factory-formed metal wall panels designed to be field assembled by interlocking seams incorporating concealed anchor clips, allowing thermal movement.
- B. Concealed clip, lap-seam wall panels with ribs at 4 inches on center.
  1. Panel shall be IMETCO Element wall system as manufactured by Innovative Metals Company, Inc. (IMETCO), Norcross, Georgia, telephone (678) 656-1265.
  2. Alternate manufacturers are subject to full compliance with specification requirements and shall be submitted for approval as follows.
    - a. Manufacturers not listed above must submit for approval, ten (10) days prior to bid date, the following: Manufacturer's literature; certification of testing in accordance with specification requirements and sections 1.4 and 1.5; sample warranties in accordance with specification section 1.10; installer qualifications in accordance with specification section 1.6, and a list of five (5) similar projects in size and scope of work.
    - b. In addition to the above requirements, requests for substitute systems shall be accompanied by a notarized letter from a corporate officer of the system manufacturer stating that the proposed alternate complies with the warranty requirements section 1.10 A. of this specification.
    - c. No substitutions will be permitted after the bid date of this project.
  3. Characteristics.
    - a. Fabrication: Panels shall be factory formed from specified metal.
    - b. Profiles shall be flat pans with a 1" reveal on the Horizontal and 1/2" reveal on the Vertical
    - c. Panel orientation: Horizontal

- d. Configuration: Horizontal Panel See Architectural Drawings for Sizes with interlocking seams incorporating concealed anchor clips allowing thermal movement.
- e. Panel Depth (Concealed Leg Height): 1.25 inches nominal.

## **2.6 MISCELLANEOUS MATERIALS**

- A. Concealed fasteners: Corrosion resistant steel screws, #10 minimum diameter x length appropriate for substrate, hex washer head or pancake head. Use self-drilling, self-tapping for metal substrate or A-point for plywood substrate.
- B. Exposed fasteners: 3xx series stainless steel screws (cadmium or zinc coatings are not acceptable) with neoprene sealing washer, or 1/8-inch diameter stainless steel rivets.

## **2.7 ACCESSORIES**

- A. Wall Panel Accessories: Provide components approved by panel manufacturer and as required for a complete metal wall panel assembly including trim, corner units, closures, clips, flashings, sealants, gaskets, fillers, and similar items. Match material and finish of metal wall panels unless otherwise indicated.
  - 1. Anchor Clips: Clips shall be 18-gauge stainless steel designed to allow thermal movement of the panel in each direction along the longitudinal dimension.
  - 2. Spline Strip at Vertical Reveal: At the vertical reveal joint sheet metal spline material shall be provided in the same material type and finish as the metal cladding panels for all visible space at the reveal joint. Spine strip material thickness shall be as recommended by manufacturer based on installation tolerances.
  - 3. Ventilation strips shall be provided at top of wall panels, windowsills, and transitions between metal panels and other exterior finish materials to allow for air exhaust at top of wall cavity. Vent strips shall be internally baffled to prevent wind driven rain from freely entering the wall cavity.
  - 4. Ventilation strips shall be provided at the base of wall panels, window head, and transitions between metal panels and other exterior finish materials to allow for air intake and water weep holes at bottom of wall cavity.
- B. Flashing and Trim: Formed from .040" and .050" aluminum, prepainted with coil coating. Provide flashing and trim as required to seal against weather and to provide finished appearance. Locations include, but are not limited to, head, sill, corners, jambs, framed openings, fasciae, and fillers. Finish flashing and trim with same finish system as adjacent metal wall panels.

## **2.8 FABRICATION**

- A. Fabricate and finish metal wall panels and accessories at the factory to the greatest extent possible, by manufacturer's standard procedures and processes and as necessary to fulfill indicated performance requirements. Comply with indicated profiles and with dimensional and structural requirements.
- B. Provide panel profile, including major ribs and intermediate stiffening ribs, if any, for full length of panel.

- C. Form flashing components from full single width sheet in minimum 10'-0" sections. Provide mitered trim corners, joined using closed end pop rivets and butyl-based, solvent released one-part sealant.
- D. Sheet Metal Accessories: Fabricate flashing and trim to comply with recommendations in SMACNA's "Architectural Sheet Metal Manual" that apply to the design, dimensions, metal, and other characteristics of item indicated.
  - 1. Form exposed sheet metal accessories that are without excessive oil canning, buckling, and tool marks and that are true to line and levels indicated, with exposed edges folded back to form hems.
  - 2. Sealed Joints: Form nonexpanding but movable joints in metal to accommodate butyl-based sealant to comply with SMACNA standards.
  - 3. Conceal fasteners and expansion provisions where possible. Exposed fasteners are not allowed on faces of accessories exposed to view.
  - 4. Fabricate cleats and attachment devices of size and metal thickness recommended by SMACNA's "Architectural Sheet Metal Manual" or by metal wall panel manufacturer for application, but not less than thickness of metal being secured.

## **2.9 FINISHES**

- A. Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes.
- B. Protect mechanical and painted finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.
- C. Appearance of Finished Work: Noticeable variations in same piece are not acceptable. Variations in appearance of adjoining components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

## **PART 3 - PREPERATION & EXECUTION**

### **3.1 EXAMINATION**

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances, metal wall panel supports, and other conditions affecting performance of the Work.
- B. Examine primary and secondary wall framing to verify that girts, studs, angles, channels, and other structural panel support members and anchorages have been installed within alignment tolerances required by metal wall panel manufacturer.
- C. Examine solid wall sheathing to verify that sheathing joints are supported by framing or blocking, and that installation is within flatness tolerances required by metal wall panel manufacturer.
- D. Examine roughing-in for components and systems penetrating metal wall panels to verify actual locations of penetrations relative to seam locations of metal wall panels before metal wall panel installation.

- E. For the record, prepare a written report, endorsed by Installer, listing conditions detrimental to performance of the Work.
- F. Proceed with installation only after unsatisfactory conditions have been corrected.

### **3.2 PREPARATION**

- A. Clean substrates of substances harmful to insulation, including removing projections capable of interfering with insulation attachment.
- B. Substrate Board: Install substrate boards over wall structure on entire wall surface. Attach with substrate-board fasteners.
- C. Install substrate board with long joints in continuous straight lines, horizontally oriented with end joints staggered between courses. Tightly butt substrate boards together.
- D. Miscellaneous Framing: Install sub-framing, furring, and other miscellaneous wall panel support members and anchorage according to metal wall panel manufacturer's written instructions.
- E. Establish straight, side and crosswise benchmarks.
- F. Use proper size and length fastener for strength requirements. Approximately 5/16 inch is allowable for maximum fastener head size beneath the panel.
- G. All walls shall be checked for square and straightness. Inside and outside corners may not be plumb; set a true line for the corner units and flashing with string line.
- H. Measure the wall lengthwise to confirm panel lengths and verify clearances for thermal movement.

### **3.3 METAL WALL PANEL INSTALLATION**

- A. All details will be shown on in accordance with approved shop drawings and manufacturer's product data, within specified erection tolerances.
- B. Directly over the completed wall substrate, install one-piece clips. All anchor clips will be fastened into the structural wall substrate based on spacing determined by ASCE 7
- C. Installation of Wall Panels: Wall panels can be installed by starting from one end and working towards the opposite end (vertical orientation), or from the bottom of wall working towards the top of the wall (horizontal orientation).
- D. Isolate dissimilar metals and masonry or concrete from metals with bituminous coating. Use gasketed fasteners where required to prevent corrosive action between fastener, substrate, and panels.
- E. Limit exposed fasteners to extent indicated on contract drawings.
- F. Seal laps and joints in accordance with wall panel system manufacturer's product data.
- G. Coordinate flashing and sheet metal work to provide weathertight conditions at wall terminations. Fabricate and install in accordance with the standards of SMACNA Manual.

- H. Provide for temperature expansion/contraction movement of panels at wall penetrations and wall mounted equipment in accordance with system manufacturer's product data and design calculations.
- I. The installed system shall be true to line and plane and free of dents, and physical defects. In light gauge panels with wide flat surfaces, some oil canning may be present. Oil canning does not affect the finish or structural integrity of the panel and is therefore not cause for rejection.
- J. At joints in linear sheet metal items, set sheet metal items in two ¼-inch beads of butyl sealant. Extend sealant over all metal surfaces. Mate components for positive seal. Allow no sealant to migrate onto exposed surfaces.
- K. Remove damaged work and replace it with new, undamaged components.
- L. Touch up exposed fasteners using paint furnished by the panel manufacturer and matching exposed panel surface finish.
- M. Clean exposed surfaces of wall panels and accessories after completion of installation. Leave in clean condition at date of substantial completion. Touch up minor abrasions and scratches in finish.

### **3.4 ERECTION TOLERANCES**

- A. Installation Tolerances: Shim and align metal wall panel units within installed tolerance of 1/4 inch in 20 feet at location lines as indicated and within 1/8-inch offset of adjoining faces and of alignment of matching profiles.
- B. Installation Tolerances: Install insulation board units within installed flatness tolerance of no more than 1/4 inch in 20 feet at location lines as indicated and within or more than 1/8-inch offset of adjoining edges. Gap between boards shall be no more than 1/8-inch. Insulation boards shall be installed in continuous contact with back-up wall exterior surface.

### **3.5 FIELD QUALITY CONTROL**

- A. Manufacturer's Field Service: Engage a factory-authorized service representative to inspect metal soffit panel installation, including accessories. Report results in writing.
- B. Remove and replace applications of metal soffit panels where inspections indicate that they do not comply with specified requirements.
- C. Additional inspections, at Contractor's expense, will be performed to determine compliance of replaced or additional work with specified requirements.

### **3.6 CLEANING**

- A. Remove temporary protective coverings and strippable films, if any, as metal soffit panels are installed unless otherwise indicated in manufacturer's written installation instructions. On completion of metal soffit panel installation, clean finished surfaces as recommended by metal soffit panel manufacturer. Maintain in a clean condition during construction.

- B. Replace metal soffit panels that have been damaged or have deteriorated beyond successful repair by finish touchup or similar minor repair procedures.

END OF SECTION 074113

**SECTION 07 62 00**  
**SHEET METAL FLASHING AND TRIM**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Fabricated sheet metal items, including flashings, counterflashings, gutters, downspouts, and drainage components.
- B. Sealants for joints within sheet metal fabrications.

**1.02 RELATED REQUIREMENTS**

- A. Section 06 10 00 - Rough Carpentry: Wood nailers for sheet metal work.
- B. Section 07 92 00 - Joint Sealants: Sealing non-lap joints between sheet metal fabrications and adjacent construction.

**1.03 REFERENCE STANDARDS**

- A. AAMA 2605 - Voluntary Specification, Performance Requirements and Test Procedures for Superior Performing Organic Coatings on Aluminum Extrusions and Panels (with Coil Coating Appendix).
- B. ASTM B209/B209M - Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate.
- C. ASTM C920 - Standard Specification for Elastomeric Joint Sealants.
- D. ASTM D2244 - Standard Practice for Calculation of Color Tolerances and Color Differences from Instrumentally Measured Color Coordinates.
- E. ASTM D226/D226M - Standard Specification for Asphalt-Saturated Organic Felt Used in Roofing and Waterproofing.
- F. ASTM D4214 - Standard Test Methods for Evaluating the Degree of Chalking of Exterior Paint Films.
- G. ASTM D523 - Standard Test Method for Specular Gloss.
- H. SMACNA (ASMM) - Architectural Sheet Metal Manual.

**1.04 SUBMITTALS**

- A. See Section 01 30 00 - Administrative Requirements for submittal procedures.
- B. Shop Drawings: Indicate material profile, jointing pattern, jointing details, fastening methods, flashings, terminations, and installation details.
- C. Samples: Submit two samples 3 by 4 inch in size illustrating metal finish color.

**1.05 QUALITY ASSURANCE**

- A. Perform work in accordance with SMACNA (ASMM) requirements and standard details, except as otherwise indicated.
- B. Fabricate and install roof edge profiles to comply with ANSI/SPRI/FM 4435/ES-1 Wind Design Standard for Edge Systems Used with Low Slope Roofing Systems.
- C. Fabricator and Installer Qualifications: Company specializing in sheet metal work with five years of documented experience.
- D. Thermal Movements: Allow for thermal movements from ambient and surface temperature changes to prevent buckling, opening of joints, overstressing of components, failure of joint sealants, failure of connections, and other detrimental effects. Temperature Change: 120 deg F, ambient; 180 deg F, material surfaces

**1.06 DELIVERY, STORAGE, AND HANDLING**

- A. Stack material to prevent twisting, bending, and abrasion, and to provide ventilation. Slope metal sheets to ensure drainage.
- B. Prevent contact with materials that could cause discoloration or staining.

## 1.07 WARRANTY

- A. See Section 01 78 00 - Closeout Submittals, for additional warranty requirements.
- B. Correct defective Work within a five year period after Date of Substantial Completion.
- C. Finish Warranty: Provide manufacturer's written warranty stating that the finish will perform as follows for minimum of 20 years:
  - 1. Chalking: No more than that represented by a No. 8 rating based on ASTM D4214.
  - 2. Color Retention: No fading or color change in excess of 5 Hunter color difference units, calculated in accordance with ASTM D2244.
  - 3. Gloss Retention: Minimum of 30 percent gloss retention, when tested in accordance with ASTM D523.

## PART 2 PRODUCTS

### 2.01 SHEET MATERIALS

- A. Pre-Finished Aluminum: ASTM B209/B209M, 3005 alloy, H12 or H14 temper; 18 gauge, 0.040 inch thick; plain finish shop pre-coated with PVDF coating.
  - 1. Polyvinylidene Fluoride (PVDF) Coating: Superior performing organic powder coating, AAMA 2605; pretreated metal with two-coat system including primer and color coat with at least 70 percent PVDF coating.
  - 2. Color: As selected by Architect from manufacturer's full colors.

### 2.02 FABRICATION

- A. Form sections true to shape, accurate in size, square, and free from distortion or defects.
  - 1. Provide custom profiles where indicated.
- B. Form pieces in longest possible lengths.
- C. Hem exposed edges on underside 1/2 inch; miter and seam corners.
- D. Form material with flat lock seams, except where otherwise indicated; at moving joints, use sealed lapped, bayonet-type or interlocking hooked seams.
- E. Fabricate corners from one piece with minimum 18-inch long legs; seam for rigidity, seal with sealant.
- F. Fabricate vertical faces with bottom edge formed outward 1/4 inch and hemmed to form drip.
- G. Fabricate roof edge copings and flashings to comply with ANSI/SPRI/FM 4435/ES-1 Wind Design Standard for Edge Systems Used with Low Slope Roofing Systems.

### 2.03 GUTTERS AND DOWNSPOUTS

- A. Gutters: SMACNA (ASMM), Rectangular profile, unless otherwise indicated or required to match existing.
- B. Downspouts: Rectangular profile, unless otherwise indicated or required to match existing.
- C. Gutters and Downspouts: Size for rainfall intensity determined by a storm occurrence of 1 in 10 years in accordance with SMACNA Architectural Sheet Metal Manual.
- D. Accessories: Profiled to suit gutters and downspouts.
  - 1. Anchorage Devices: In accordance with SMACNA (ASMM) requirements.
  - 2. Gutter Supports: Brackets.
  - 3. Downspout Supports: Brackets.
- E. Splash Pads: Precast concrete type, of size and profiles indicated; minimum 3,000 psi at 28 days, with minimum 5 percent air entrainment.
- F. Downspout Boots: Same material and finish as downspouts.
- G. Seal metal joints.

## **2.04 FLASHING**

- A. Flashing Panels for Exterior Wall Penetrations: Premanufactured components and accessories as required to preserve integrity of building envelope; suitable for conduits and facade materials to be installed.

## **2.05 ACCESSORIES**

- A. General: Provide materials and types of fasteners, solder, welding rods, protective coatings, separators, sealants, and other miscellaneous items as required for complete sheet metal flashing and trim installation.
- B. Fasteners: Wood screws, annular threaded nails, self-tapping screws, self-locking rivets and bolt, and other suitable fasteners designed to withstand design loads.
  - 1. Exposed Fasteners: Heads matching color of sheet metal by means of plastic caps or factory-applied coating.
  - 2. Fasteners for Flashing and Trim: Blind fasteners or self-drilling screws, gasketed with hex washer heads.
  - 3. Blind Fasteners: High-strength aluminum or stainless-steel rivets.
  - 4. Use fasteners of sizes that will penetrate substrate not less than 1-1/4 inches for nails and not less than 3/4 inch for wood screws. Use stainless steel fasteners.
  - 5. Neoprene washers
- C. Underlayment: ASTM D226/D226M, organic roofing felt, Type I, No. 15.
- D. Primer Type: Zinc chromate.
- E. Protective Backing Paint: Zinc molybdate alkyd, 15 mils DFT minimum.
- F. Concealed Sealants: ASTM C1311; non-curing butyl sealant.
  - 1. See Section 079200 for additional requirements.
- G. Exposed Sealants: ASTM C920; elastomeric sealant, with minimum movement capability as recommended by manufacturer for substrates to be sealed; color to match adjacent material.
  - 1. See Section 079200 for additional requirements.

## **PART 3 EXECUTION**

### **3.01 EXAMINATION**

- A. Verify roof openings, curbs, pipes, sleeves, ducts, and vents through roof are solidly set, reglets in place, and nailing strips located.
- B. Verify roofing termination and base flashings are in place, sealed, and secure.

### **3.02 PREPARATION**

- A. Install starter and edge strips, and cleats before starting installation.
- B. Back paint concealed metal surfaces with protective backing paint to a minimum dry film thickness of 15 mil, 0.015 inch.

### **3.03 INSTALLATION**

- A. Insert flashings into reglets to form tight fit; secure in place with plastic wedges; seal flashings into reglets with sealant.
- B. Secure flashings in place using concealed fasteners, and use exposed fasteners only where permitted.
- C. Metal Protection: Where dissimilar metals contact each other, or where metal contacts pressure-treated wood or other corrosive substrates, protect against galvanic action or corrosion by painting contact surfaces with bituminous coating or by other permanent separation as recommended by sheet metal manufacturer or cited sheet metal standard.
- D. Apply plastic cement compound between metal flashings and felt flashings.
- E. Fit flashings tight in place; make corners square, surfaces true and straight in planes, and lines accurate to profiles.

- F. Seal metal joints watertight.
- G. Secure gutters and downspouts in place with color-matched brackets and stainless steel concealed fasteners, with soft neoprene washers.
- H. Join gutter sections with joints sealed with sealant. Provide for thermal expansion. Attach gutters at eave or fascia to firmly anchor them in position. Provide end closures and seal watertight with sealant.
- I. Connect downspouts to downspout boots. Seal connection watertight.
- J. Set splash pads under downspouts.

**END OF SECTION**

**SECTION 07 92 00**  
**JOINT SEALANTS**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Nonsag gunnable joint sealants, including:
- B. Joint backings and accessories.

**1.02 REFERENCE STANDARDS**

- A. ASTM C661 - Standard Test Method for Indentation Hardness of Elastomeric-Type Sealants by Means of a Durometer.
- B. ASTM C834 - Standard Specification for Latex Sealants.
- C. ASTM C919 - Standard Practice for Use of Sealants in Acoustical Applications.
- D. ASTM C920 - Standard Specification for Elastomeric Joint Sealants.
- E. ASTM C1193 - Standard Guide for Use of Joint Sealants.
- F. ASTM C1248 - Standard Test Method for Staining of Porous Substrate by Joint Sealants.
- G. ASTM C1311 - Standard Specification for Solvent Release Sealants.
- H. ASTM C1330 - Standard Specification for Cylindrical Sealant Backing for Use with Cold Liquid-Applied Sealants.
- I. SCAQMD 1168 - South Coast Air Quality Management District Rule No.1168.

**1.03 SUBMITTALS**

- A. See Section 01 30 00 - Administrative Requirements for submittal procedures.
- B. Product Data: Submit manufacturer's technical datasheets for each product to be used; include 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. Backing material recommended by sealant manufacturer.
  - 4. Substrates that product is known to satisfactorily adhere to and with which it is compatible.
  - 5. Substrates the product should not be used on.
  - 6. Substrates for which use of primer is required.
  - 7. Substrates for which laboratory adhesion and/or compatibility testing is required.
  - 8. Installation instructions, including precautions, limitations, and recommended backing materials and tools.
  - 9. Sample product warranty.
- C. Product Data for Accessory Products: Submit manufacturer's technical data sheet for each product to be used, including physical characteristics, installation instructions, and recommended tools.
- D. Color Cards for Selection: Where sealant color is not specified, submit manufacturer's color cards showing standard colors available for selection.

**1.04 QUALITY ASSURANCE**

- A. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum ten years documented experience.
- B. Installer Qualifications: Company specializing in performing the work of this section.
- C. Field Quality Control Plan:
  - 1. Visual inspection of entire length of sealant joints.

## 1.05 FIELD CONDITIONS

- A. Maintain temperature and humidity recommended by the sealant manufacturer during and after installation.

## 1.06 WARRANTY

- A. See Section 01 78 00 - Closeout Submittals for additional warranty requirements.
- B. Correct defective work within a five year period after Date of Substantial Completion.
  - 1. For silicone sealants within 20 years.
- 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 MANUFACTURERS

- A. Nonsag Sealants:
  - 1. Adhesives Technology Corporation: [www.atcepoxy.com](http://www.atcepoxy.com).
  - 2. Bostik Inc: [www.bostik-us.com](http://www.bostik-us.com).
  - 3. Chem Link, Inc: [www.chemlinkinc.com](http://www.chemlinkinc.com).
  - 4. Dow: [www.dow.com/#sle](http://www.dow.com/#sle).
  - 5. Franklin International, Inc: [www.titebond.com](http://www.titebond.com).
  - 6. Hilti, Inc: [www.us.hilti.com/#sle](http://www.us.hilti.com/#sle).
  - 7. Master Builders Solutions: [www.master-builders-solutions.com/en-us/#sle](http://www.master-builders-solutions.com/en-us/#sle).
  - 8. Momentive Performance Materials, Inc (formerly GE Silicones): [www.momentive.com/#sle](http://www.momentive.com/#sle).
  - 9. Pecora Corporation: [www.pecora.com/?sle](http://www.pecora.com/?sle).
  - 10. The QUIKRETE Companies: [www.quikrete.com](http://www.quikrete.com).
  - 11. Sherwin-Williams Company: [www.sherwin-williams.com](http://www.sherwin-williams.com).
  - 12. Sika Corporation: [www.usa-sika.com](http://www.usa-sika.com).
  - 13. Tremco Commercial Sealants & Waterproofing: [www.tremcosealants.com/#sle](http://www.tremcosealants.com/#sle).
  - 14. W.R. Meadows, Inc: [www.wrmeadows.com/sle](http://www.wrmeadows.com/sle).
  - 15. Substitutions: See Section 01 60 00 - Product Requirements.

### 2.02 JOINT SEALANTS - GENERAL

- A. Sealants and Primers: Provide products having lower volatile organic compound (VOC) content than indicated in SCAQMD 1168.

### 2.03 NONSAG JOINT SEALANTS

- A. Type - General Purpose Exterior Sealant - Non-Staining Silicone Sealant: ASTM C920, Grade NS, Uses M, G, O and A; not expected to withstand continuous water immersion or traffic.
  - 1. Movement Capability: Plus 100 percent, minus 50 percent, minimum.
  - 2. Nonstaining to Porous Stone: Nonstaining to light-colored natural stone when tested in accordance with ASTM C1248.
  - 3. Dirt Pick-Up: Reduced dirt pick-up compared to other silicone sealants.
  - 4. Hardness Range: 15 to 35, Shore A, when tested in accordance with ASTM C661.
  - 5. Color: To be selected by Architect from manufacturer's full range.
  - 6. Cure Type: Single-component, neutral moisture curing.
  - 7. Products:
    - a. Dow; DOWSIL 790 Silicone Building Sealant: [www.dow.com/#sle](http://www.dow.com/#sle).
    - b. Pecora Corporation; Pecora 890 NST (Non-Staining Technology): [www.pecora.com/#sle](http://www.pecora.com/#sle).
    - c. Pecora Corporation; Pecora 864 NST (Non-Staining Technology): [www.pecora.com/#sle](http://www.pecora.com/#sle).
    - d. Sika Corporation; Sikasil WS-290: [www.usa.sika.com/#sle](http://www.usa.sika.com/#sle).
    - e. Sika Corporation; Sikasil 728NS: [www.usa.sika.com/#sle](http://www.usa.sika.com/#sle).

- f. Tremco Commercial Sealants & Waterproofing; Spectrem 1:  
www.tremcosealants.com/#sle.
- g. Tremco Commercial Sealants & Waterproofing; Spectrem 2:  
www.tremcosealants.com/#sle.
- h. Tremco Commercial Sealants & Waterproofing; Spectrem 3:  
www.tremcosealants.com/#sle.
- i. Tremco Commercial Sealants & Waterproofing; Tremsil 200:  
www.tremcosealants.com/#sle.
- j. Tremco Commercial Sealants & Waterproofing; Tremsil 400:  
www.tremcosealants.com/#sle.
- k. Substitutions: See Section 01 60 00 - Product Requirements.
- 8. Applications:
  - a. Wall expansion and control joints.
  - b. Joints between different exposed materials.
- B. Type - General Purpose Interior Sealant - Acrylic Emulsion Latex: Water-based; ASTM C834, single component, non-staining, non-bleeding, non-sagging; not intended for exterior use.
  - 1. Color: To be selected by Architect from manufacturer's full range.
  - 2. Grade: ASTM C834; Grade - NF.
  - 3. Products:
    - a. Pecora Corporation; AC-20 +Silicone: www.pecora.com/#sle.
    - b. Sherwin-Williams Company; White Lightning 3006 Siliconized Acrylic Latex Caulk:  
www.sherwin-williams.com/#sle.
    - c. Sherwin-Williams Company; 850A Acrylic Latex Caulk:  
www.sherwin-williams.com/#sle.
    - d. Sherwin-Williams Company; 950A Siliconized Acrylic Latex Caulk:  
www.sherwin-williams.com/#sle.
    - e. Tremco Commercial Sealants & Waterproofing; Tremflex 834:  
www.tremcosealants.com/#sle.
    - f. Substitutions: See Section 01 60 00 - Product Requirements.
  - 4. Applications:
    - a. Interior wall and ceiling control joints in non-wet areas.
    - b. Joints between door, window, and other frames and adjacent construction.
    - c. Other interior joints for which no other type of sealant is indicated.
- C. Type - Moving Joint Sealant - Non-Curing Butyl Sealant: Solvent-based; ASTM C1311; single component, non-sag, non-skinning, non-hardening, non-bleeding; vapor-impermeable; intended for fully concealed applications.
  - 1. Products:
    - a. Pecora Corporation; Pecora BA-98 Non-Skinning Butyl Sealant:  
www.pecora.com/#sle.
    - b. Tremco Commercial Sealants & Waterproofing; Acoustical/Curtainwall Sealant:  
www.tremcosealants.com/#sle.
    - c. Substitutions: See Section 01 60 00 - Product Requirements.
  - 2. Applications:
    - a. Lap Joints in Sheet Metal Fabrications
    - b. Lap Joints between Manufactured Metal Panels

## 2.04 ACCESSORIES

- A. Sealant Backing Rod, Closed-Cell Type:
  - 1. Cylindrical flexible sealant backings complying with ASTM C1330 Type C.
  - 2. Size: 25 to 50 percent larger in diameter than joint width.
  - 3. Products:
    - a. Nomaco, Inc; HBR: www.nomaco.com/#sle.
    - b. Substitutions: See Section 01 60 00 - Product Requirements.
- B. Sealant Backing Rod, Bi-Cellular Type:

1. Cylindrical flexible sealant backings complying with ASTM C1330 Type B.
2. Size: 25 to 50 percent larger in diameter than joint width.
3. Products:
  - a. Adfast USA Inc; Adseal BR-2600 Backer Rod: [www.adfastcorp.com/#sle](http://www.adfastcorp.com/#sle).
  - b. Nomaco, Inc; SOF Rod: [www.nomaco.com/#sle](http://www.nomaco.com/#sle).
  - c. Substitutions: See Section 01 60 00 - Product Requirements.
- C. Backing Tape: Self-adhesive polyethylene tape with surface that sealant will not adhere to and recommended by tape and sealant manufacturers for specific application.
- D. Masking Tape: Self-adhesive, nonabsorbent, nonstaining, removable without adhesive residue, and compatible with surfaces adjacent to joints and sealants.
- E. Joint Cleaner: Noncorrosive and nonstaining type, type recommended by sealant manufacturer; compatible with joint forming materials.
- F. Primers: Type recommended by sealant manufacturer to suit application; nonstaining.

### **PART 3 EXECUTION**

#### **3.01 EXAMINATION**

- A. Verify that substrates and 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.
- E. Concrete Floor Joints That Will Be Exposed in Completed Work: Test joint filler in an inconspicuous area to verify that it does not stain or discolor slab.

#### **3.03 INSTALLATION**

- A. Install this work in accordance with sealant manufacturer's requirements for preparation of surfaces and material installation instructions.
- B. Provide joint sealant installations complying with ASTM C1193.
- C. Install acoustical sealant application work in accordance with ASTM C919.
- D. Measure joint dimensions and size joint backers to achieve the following, unless otherwise indicated:
  1. Width/depth ratio of 2:1.
  2. Neck dimension no greater than 1/3 of the joint width.
  3. Surface bond area on each side not less than 75 percent of joint width.
- E. Install bond breaker backing tape where backer rod cannot be used.
- F. Install sealant free of air pockets, foreign embedded matter, ridges, and sags, and without getting sealant on adjacent surfaces.
- G. 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.
- H. Do not seal the following types of joints.
  1. Intentional weepholes in masonry.
  2. Joints indicated to be treated with manufactured expansion joint cover or some other type of sealing device.
  3. Joints where sealant is specified to be provided by manufacturer of product to be sealed.

4. Joints where installation of sealant is specified in another section.
  5. Joints between suspended panel ceilings/grid and walls.
- I. Nonsag Sealants: Tool surface concave, unless otherwise indicated; remove masking tape immediately after tooling sealant surface.

**3.04 CLEANING**

- A. Clean adjacent soiled surfaces.

**3.05 PROTECTION OF FINISHED WORK**

- A. Protect sealants until cured.

**END OF SECTION**



## SECTION 08 91 00

### LOUVERS

#### PART 1 GENERAL

##### 1.01 SECTION INCLUDES

- A. Louvers, frames, and accessories.

##### 1.02 RELATED REQUIREMENTS

- A. Section 07 42 13 - Metal Wall Panels: Sealing frames to water-resistive barrier installed on adjacent construction.
- B. Section 07 62 00 - Sheet Metal Flashing and Trim.
- C. Section 07 92 00 - Joint Sealants: Sealing joints between frames and adjacent construction.

##### 1.03 REFERENCE STANDARDS

- A. AAMA 2605 - Voluntary Specification, Performance Requirements and Test Procedures for Superior Performing Organic Coatings on Aluminum Extrusions and Panels (with Coil Coating Appendix).
- B. AMCA 500-L - Laboratory Methods of Testing Louvers for Rating.
- C. AMCA 511 - Certified Ratings Program for Air Control Devices.

##### 1.04 SUBMITTALS

- A. See Section 01 30 00 - Administrative Requirements for submittal procedures.
- B. Product Data: Provide data describing design characteristics, maximum recommended air velocity, design free area, materials and finishes.
- C. Shop Drawings: Indicate louver layout plan and elevations, opening and clearance dimensions, and tolerances; head, jamb and sill details; blade configuration, screens, blank-off areas required, and frames.
- D. Details to include adjacent conditions, interfacing and sealing to adjacent primary air and water barrier line.
- E. Selection Samples: For each finish product specified, two complete sets of color chips representing manufacturer's full range of available finishes, colors, and textures.
- F. Test Reports: Independent agency reports showing compliance with specified performance criteria; may be previous tests for same louver.

##### 1.05 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing products of the type specified in this section, with minimum five years of documented experience.
- B. Installer Qualifications: Company specializing in performing work of type specified and approved by manufacturer.
- C. Coordinate louver sizes, free area and blank-off panel requirements with mechanical contractor.

##### 1.06 WARRANTY

- A. See Section 01 78 00 - Closeout Submittals for additional warranty requirements.
- B. Provide five year manufacturer's warranty against distortion, metal degradation, and connection failures of louver components.
  - 1. Finish: Include twenty year coverage against degradation of exterior finish.

#### PART 2 PRODUCTS

##### 2.01 MANUFACTURERS

- A. Louvers:
  - 1. Airolite Company, LLC: [www.airolite.com](http://www.airolite.com).
  - 2. **BASIS OF DESIGN:** Construction Specialties, Inc; A6155: [www.c-sgroup.com](http://www.c-sgroup.com).
  - 3. Greenheck Fan Corporation

4. Industrial Louvers, Inc: [www.industriallouvers.com](http://www.industriallouvers.com).
5. InPro Corporation: [www.inprocorp.com](http://www.inprocorp.com).
6. Ruskin Company: [www.ruskin.com/#sle](http://www.ruskin.com/#sle).
7. United Enertech: [www.unitedenertech.com/#sle](http://www.unitedenertech.com/#sle).
8. Substitutions: See Section 01 60 00 - Product Requirements.

## 2.02 LOUVERS

- A. Louvers: Factory fabricated and assembled, complete with frame, mullions, and accessories; AMCA Certified in accordance with AMCA 511.
  1. Wind Load Resistance: Design to resist positive and negative wind load as required by code without damage or permanent deformation.
  2. Intake Louvers: Design to allow maximum of 0.01 oz/sq ft water penetration at calculated intake design velocity based on design air flow and actual free area, when tested in accordance with AMCA 500-L.
  3. Drainable Blades: Continuous rain stop at front or rear of blade aligned with vertical gutter recessed into both jambs of frame.
  4. Screens: Provide insect screens at intake louvers and bird screens at exhaust louvers.
- B. Stationary Louvers: Horizontal blade, extruded aluminum construction, with concealed intermediate mullions.
  1. Free Area: 50 percent, minimum.
  2. Blades: Double Drainable.
  3. Frame: Depth as indicated on drawings, channel profile; corner joints mitered and, with continuous recessed caulking channel each side.
  4. Aluminum Thickness: Frame 12 gauge, 0.0808 inch minimum; blades 14 gauge, 0.064 inch minimum.
  5. Aluminum Finish: Superior performing organic coatings; finish welded units after fabrication.

## 2.03 MATERIALS

- A. Extruded Aluminum: ASTM B221 (ASTM B221M).

## 2.04 FINISHES

- A. Superior Performing Organic Coatings System: Manufacturer's standard multi-coat superior performing organic coatings system complying with AAMA 2605, including at least 70 percent polyvinylidene fluoride (PVDF) resin, and at least 80 percent of aluminum extrusion and panels surfaces having minimum total dry film thickness (DFT) of 1.2 mils, 0.0012 inch.
- B. Color: As selected from manufacturer's standard colors.

## 2.05 ACCESSORIES

- A. Blank-Off Panels: Aluminum face and back sheets, polyisocyanurate foam core, 1-1/2 inch thick, painted black on exterior side; provide where duct connected to louver is smaller than louver frame, sealing off louver area outside duct.
- B. Screens: Frame of same material as louver, with reinforced corners; removable, screw attached; installed on inside face of louver frame.
  1. Bird Screen: Interwoven wire mesh of aluminum, 14 gage, 0.0641 inch diameter wire, 1/2 inch open weave, square design.
  2. Insect Screen: 18 x 16 size aluminum mesh.
- C. Head and Sill Flashings: See Section 07 62 00.
- D. Sealant for Setting Sills and Sill Flashing: Non-curing butyl type.

## PART 3 EXECUTION

### 3.01 EXAMINATION

- A. Verify that prepared openings and flashings are ready to receive this work and opening dimensions are as indicated on shop drawings, including interfacing or wrapping with the primary air and water barrier material.

- B. Verify that field measurements are as indicated on shop drawings.
- C. If substrate preparation is the responsibility of another installer, notify General Contractor of unsatisfactory preparation before proceeding.

**3.02 INSTALLATION**

- A. Install louver assembly in accordance with manufacturer's instructions.
- B. Install louvers level and plumb.
- C. Set sill members and sill flashing in continuous bead of sealant.
- D. Install flashings and align louver assembly to ensure moisture shed from flashings and diversion of moisture to exterior.
- E. Secure louver frames in openings with concealed fasteners.
- F. Coordinate with installation of mechanical ductwork.

**3.03 CLEANING**

- A. Strip protective finish coverings.
- B. Clean surfaces and components.

**3.04 PROTECTION**

- A. Protect installed products until completion of project.
- B. Protect metal surfaces from corrosion or galvanic action by application of a heavy coating of bituminous paint on surfaces that will be in contact with concrete, masonry or dissimilar metals.

**END OF SECTION**

