

Construction Document Specifications For:

# Clinton County Courthouse

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Roofing Replacement  
Clinton, Iowa



IIW, P.C.  
4155 Pennsylvania Avenue  
Dubuque, IA 52002-2628  
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IIW Project No.: 15164  
Date: April 27, 2016

**SECTION 000101 – PROJECT TITLE PAGE**

**Clinton County Courthouse  
Roofing Replacement**

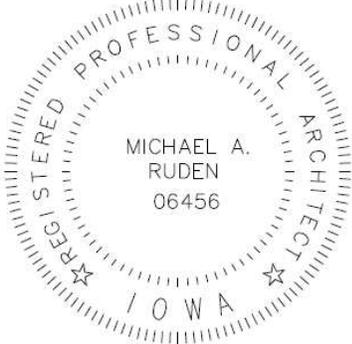
239 7<sup>th</sup> Avenue North  
Clinton, Iowa



**SECTION 000102 – CERTIFICATION PAGE**

**Clinton County Courthouse  
Roofing Replacement**

239 7<sup>th</sup> Avenue North  
Clinton, Iowa

	<p>I hereby certify that this document was prepared by me or under my direct personal supervision and that I am a Registered Architect under the laws of the State of Iowa.</p> <p>FOR IIW, P.C.</p>
	<p>Michael A. Ruden, AIA. <span style="float: right;">Date</span> License Number 6456 My license renewal date is June 30, 2017 Architectural Sections Identified in the Table of Contents</p>

**END OF SECTION 000102**



DOCUMENT 000102 – PROJECT DIRECTORY

Clinton County Courthouse  
Roofing Replacement

**Architect / Engineer**

IIW, P.C.  
4155 Pennsylvania Avenue  
Dubuque, IA 52002-2628  
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**END OF SECTION 000110**

## NOTICE TO BIDDERS

### CLINTON COUNTY COURTHOUSE – ROOFING REPLACEMENT

Clinton County is seeking bidders to bid to contract for public improvements for roofing replacement to the Clinton County Courthouse located at 239 7<sup>th</sup> Avenue, Clinton, Iowa

**Time and Place for Filing Sealed Proposals.** Sealed bids for the work to the Clinton County Courthouse located at 239 7<sup>th</sup> Avenue, Clinton, Iowa, as stated below must be filed before 2:00 p.m. on May 18, 2016, in the Office of the County Auditor, Clinton County Administration Building, 1900 N. 3<sup>rd</sup> St., Clinton, IA 52732.

**Time and Place Sealed Proposals will be Opened and Considered.** Sealed proposals will be opened and bids tabulated shortly after 2:00 p.m. on May 18, 2016, at the Clinton County Administration Building, 1900 N. 3<sup>rd</sup> St., Conference Room B, Clinton, Iowa, for consideration by the Clinton County Board of Supervisors (Board) at its meeting on Monday, May 23, 2016. The County of Clinton, Iowa, reserves the right to reject any and all bids.

**Time for Commencement and Completion of Work.** Work on the Building shall be commenced within ten (10) days after the Notice to Proceed has been issued and shall be completed by September 30, 2016. Bidder shall pay \$1,000.00 per day liquidated damages for each day after the September 30, 2016, completion date until work is completed.

**Bid Security.** Each bidder shall accompany its bid with bid security as defined in Iowa Code Section 26.8 as security that the successful bidder will enter into a contract for the work bid upon and will furnish after the award of contract a corporate surety bond, acceptable to the governmental entity, for the faithful performance of the contract, in an amount equal to one hundred percent (100%) of the amount of the contract. The bid security shall be in the amount of ten percent (10%) of the amount of the contract and shall be in the form of a cashier's check or certified check drawn on a state-chartered or federally-chartered bank, or a certified share draft drawn on a state-chartered or federally-chartered credit union, or the governmental entity may provide for a bidder's bond with corporate surety satisfactory to the governmental entity. The bid bond shall contain no conditions except as provided in this section.

**Contract Documents.** Copies of the Construction Bidding Documents may be obtained by contacting Clinton Printing Company, 1402 Roosevelt Street, Clinton, Iowa, 52732, phone 563-242-7895, on or after April 27, 2016. A deposit of \$100.00 per set of documents or receipt of AGC, AMC, AMEC, MBI or NECA card is required. Checks should be made out to Clinton County Auditor. Deposits will be refunded upon return of the Construction Bidding Documents in good condition within ten (10) days after bid opening.

Copies of the Construction Bidding Documents may be viewed at the Office of the Clinton County Auditor, Clinton County Administration Building, 1900 N. 3<sup>rd</sup> St., Clinton, Iowa.

Project information will also be posted on the County's website at [www.clintoncounty-ia.gov](http://www.clintoncounty-ia.gov), and at plan room locations as listed below:

Master Builders of Iowa / Construction Update Plan Room, [www.mbionline.com](http://www.mbionline.com), Phone: 515-657-4388

CMD Group (formerly Reed Construction Data), [www.cmdgroup.com](http://www.cmdgroup.com), Phone: 800-699-8640

Dodge Data & Analytics, <http://construction.com>, Phone: 810-639-0660

Isqft, <http://www.isqft.com>, Phone: 800-364-2059

**Preference for Iowa Products and Labor.** By virtue of statutory authority, a preference will be given to products and provisions grown and coal produced within the State of Iowa to the extent lawfully required under Iowa statutes.

**Sales Tax.** The bidder should not include sales tax in its bid. A sales tax exemption certificate will be available for all material purchased for incorporation in the project.

**General Nature of Public Improvement.** The scope of the project includes removal of existing asphalt singles and metal flashings and installation of new underlayment, metal flashings and asphalt shingles. Work shall also include removal of existing single ply roof membrane and installation of new membrane roofing on two small roofs on the east side of the building.

**To View the Building (the Clinton County Courthouse) located at 239 7<sup>th</sup> Avenue, Clinton, Iowa:** Prospective Bidders may contact Corey R. Johnson, Manager, Clinton County Building Maintenance, Clinton County Administration Building, 1900 N. 3<sup>rd</sup> St., Clinton, Iowa, 52732; office phone 563- 243-2160 or by email: [cjohnson@clintoncounty-ia.gov](mailto:cjohnson@clintoncounty-ia.gov).

Published in the Clinton Herald.

For the Clinton County Board of Supervisors,  
Eric Van Lancker  
Clinton County Auditor

## **SECTION 002000**

### **INSTRUCTIONS TO BIDDERS**

#### **DOCUMENTS**

Copies of the Construction Bidding Documents may be obtained by contacting Clinton Printing Company, 1402 Roosevelt Street, Clinton, IA 52732, (563) 242-7895. A deposit of \$100.00 per set of documents or receipt of AGC, AMC, AMEC, MBI or NECA card is required. Deposits will be refunded upon return of the Construction Bidding Documents in good condition within ten (10) days after the bid opening.

Copies of the Construction Bidding Documents may be viewed at the Office of the Auditor, Clinton County Administration Building, 1900 N 3<sup>rd</sup> St, Clinton, IA.

Project information will also be posted on the County's website at [www.clintoncounty-ia.gov](http://www.clintoncounty-ia.gov)

The County requests non-bidders to return documents as soon as possible before bid opening.

#### **EXAMINATION**

Bidders shall use complete sets of Bidding Documents in preparing Bids. Examine the documents and the construction site to obtain first-hand knowledge of existing conditions. Extra compensation will not be given for conditions that can be determined by examining the documents and site.

Bidders are cautioned to be alert for the possibility of missing Project Manual pages. In all cases, pages are numbered consecutively within each section, and "END OF SECTION" identifies the final page of each section.

#### **QUESTIONS AND INTERPRETATIONS**

Submit questions about the Bidding Documents to the IIW, P.C. in writing. Replies will be issued to Document holders of record as Addenda to the Drawings and Specifications and will become part of the Bidding Documents. The Architect and Owner will not be responsible for oral clarification.

Failure to request clarification will not waive the responsibility of comprehension of the documents and performance of the work in accordance with the intent of the documents. Signing of the Agreement will be considered as implicitly denoting thorough comprehension of intent of the Bidding Documents.

#### **PRODUCT OPTIONS**

To obtain approval to use an unspecified product, deliver written requests to the Architect at least TEN (10) days before the bid date. Late requests will not be considered. Clearly describe and indicate the product for which approval is requested, including data, clearly marked necessary to demonstrate acceptability. Written request must indicate the section number, page number and line number of the Specification for the request of the product being made. If the product is acceptable, the Architect will approve it in an Addendum issued to plan holders on record.

#### **INSPECTION SITE**

Each Bidder should visit the site(s) and/or building(s) of the proposed work and fully acquaint themselves with the existing conditions relating to the project and should inform themselves as to the facilities involved, the difficulties and the restrictions attending the performance of the Contract. The Bidder shall thoroughly examine and familiarize themselves with the specifications and all other Construction Documents. The Contractor by the

execution of the Contract shall in no way be relieved of any obligation under it due to his failure to receive or examine any form or legal instrument or to visit the site and acquaint themselves with the conditions there existing and the County will be justified in rejecting any claim based on facts regarding which he should have been on notice as a result thereof.

### **PRE-BID INFORMATION**

Prospective Bidders may contact Corey R. Johnson, Manager, Clinton County Building Maintenance, Clinton County Administration Building, 1900 N. 3<sup>rd</sup> Street, Clinton, Iowa 52732; office phone #(563) 243-2160 or by email: [cjohnson@clintoncounty-ia.gov](mailto:cjohnson@clintoncounty-ia.gov). Contractors wishing to submit a bid for this work are responsible for becoming familiar with the project and existing conditions.

### **PREPARATION OF BIDS**

- a. All bids must be submitted on the Bid Proposal Forms (**BID FORMS 1A & 1B**) supplied by the County and bound in the Construction Documents Manual. Bid amounts shall be both written and printed in the space provided. In case of conflicts between figures, the written amount will prevail. All bids shall be subject to all requirements of the Construction Documents including INSTRUCTIONS TO BIDDERS. All Bids must be regular in every respect and no interlineations, excisions or special conditions shall be made or included in the Bid Form by the Bidder.
- b. Bid Documents including the Bid Proposal Forms (**BID FORMS 1A & 1B**) and Bid Bond, shall be enclosed in a sealed envelope and clearly labeled with the project name, name of Bidder, and date and time of bid opening in order to guard against premature opening of the Bid.
- c. The County may consider as irregular any Bid on which there is an alteration of or departure from the Bid Form(s) hereto attached and at its option may reject the same.
- d. If the Contract is awarded, it will be awarded by the County to a responsible Bidder on the basis of the Bid most favorable to the County. The Contract will require the completion of work according to the Construction Documents.
- e. Each Bidder shall include in his bid, in the appropriate spaces therefore, the proposed cost of performing said work in compliance with the Construction Documents including all items of labor, equipment, materials and overhead.

### **BID SECURITY**

Bidders are referred to the Bid Proposal Schedule (**BID FORMS 1A**) executed by the Bidder and an acceptable surety; or a cashier's or certified check payable to the County Treasurer, Clinton County, Iowa, drawn on a bank of Iowa or a bank chartered under the laws of the United States, in the amount of ten percent (10%) of the bid submitted as security that the Bidder will enter into a contract for doing the work and will give bond with proper securities for the faithful performance of the contract in the form attached to the specifications.

## **CORRECTIONS**

Erasures or other changes in the Bid must be explained or noted over the signature of the Bidder.

## **SALES TAX**

Pursuant to Iowa Code Sections: 422.42(15) & (16), and 422.47 (5), the Contractor will be Authorized to purchase construction materials in Iowa for this project tax free. Clinton County, as the "exempt Entity" shall issue an exemption certificate to be used by the Contractor and his subcontractors to purchase materials tax free for the designated project.

The Contractor shall immediately, upon notification of Contract award, provide the County Representative with a list of all subcontractors to be used on the project in order that the County may identify them in the exemption certificate.

If successful bidder is a non-Iowa partnership, individual, or corporation, bidder shall furnish evidence, prior to execution of Contract, that bond or securities have been posted with the Iowa Division of Labor in the amount required by law.

## **BIDDER STATUS FORM**

**ALL** bidders are required to complete the Bidder Status form included in the project specification manual and submit this completed and signed form with their bid. Failure to submit a fully completed Bidder Status Form with the bid may result in the bid being deemed nonresponsive and rejected.

## **TIME FOR RECEIVING BIDS**

Bids received prior to the time of opening will be securely kept unopened. The officer whose duty it is to open them will decide when the specified time has arrived, and no Bid received thereafter will be considered.

## **OPENING OF BIDS**

At the time and place fixed for the opening of Bids, the County will cause to be opened and publicly read aloud every Bid received within the time set for receiving Bids, irrespective of any irregularities, therein, Bidders and other persons properly interested may be present, in person or by representative.

## **WITHDRAWAL OF BIDS**

Bids may be withdrawn on written request by the Bidder received prior to the time fixed for opening. The Bid Bond of any bidder withdrawing his Bid in accordance with the foregoing conditions will be returned promptly.

## **AWARD OF CONTRACTS: REJECTION OF BIDS**

- a. The Contract (**CONTRACT FORM 3**) shall be awarded to the lowest responsible Bidder complying with the conditions of the NOTICE TO BIDDERS provided such Bid is reasonable and it is to the interest of the County to accept it. The County, however, reserves the right to reject any and all Bids and to waive any formality in bids received whenever such rejection or waiver is in the County's interest. The Bidder to whom the award is made shall be notified at the earliest possible date.

- b. The County reserves the right to consider as unqualified to perform the Contract any Bidder who does not habitually perform with his own forces the major portions of the work involved in the completion of the project.

#### **EXECUTION OF CONTRACT: PERFORMANCE, PAYMENT AND MAINTENANCE BOND**

- a. Subsequent to the award and within seven (7) days after the prescribed forms are presented for signature, the successful Bidder shall execute and deliver to the County a Contract in the form included (CONTRACT FORM 4) in the Construction Documents in such number of copies as the County may require.
- b. Having satisfied all conditions of award as set forth elsewhere in these documents, the successful Bidder shall, within the period specified in Paragraph "a" above, furnish a Contractor's Performance, Payment and Maintenance Bond in the same form that included in the Construction Documents and shall bear the same date as, or a date subsequent to, the date of the Contract. The current power of attorney for the person who signs for any surety company shall be attached to such bond.
- c. The failure of the successful Bidder to execute such Contract and to supply the required bond(s) within seven (7) days after the prescribed forms are presented for signature, or within such extended period as the County may grant, based upon reasons determined sufficient by the County, shall constitute a default, and the County may either award the Contract to the next best responsible Bidder or re-advertise for Bids, and may charge against the Bidder the difference between the amount for which a Contract for the work is subsequently executed, irrespective of whether the amount thus due exceeds the amount of the Bid Bond. If a more favorable bid is received by re-advertising, the defaulting Bidder shall have no claim against the County for a refund.

#### **AMERICAN-MADE EQUIPMENT & PRODUCTS**

By virtue of statutory authority, a preference will be given to products and provisions grown and coal produced within the State of Iowa to the extent lawfully required under Iowa statutes.

#### **NONDISCRIMINATION**

In carrying out the project, the Contractor shall not discriminate against any employee or applicant for employment because of race, religion, color, sex, national origin, age or disability. All businesses, including minority owned, female owned, or small businesses are encouraged to participate.

END OF SECTION 002000

**BID PROPOSAL SCHEDULE**  
**CLINTON COUNTY COURTHOUSE**  
**ROOFING REPLACEMENT**

**LUMP SUM BID:**

BIDDER agrees to complete the Work in accordance with the Contract Documents for the following:

TOTAL BASE BID LUMP SUM PRICE:

\_\_\_\_\_

(use words)

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

(figures)

**END OF SECTION 004100**



# Bidder Status Form

## To be completed by all bidders

## Part A

Please answer "Yes" or "No" for each of the following:

- Yes  No My company is authorized to transact business in Iowa.  
*(To help you determine if your company is authorized, please review the worksheet on the next page).*
- Yes  No My company has an office to transact business in Iowa.
- Yes  No My company's office in Iowa is suitable for more than receiving mail, telephone calls, and e-mail.
- Yes  No My company has been conducting business in Iowa for at least 3 years prior to the first request for bids on this project.
- Yes  No My company is not a subsidiary of another business entity or my company is a subsidiary of another business entity that would qualify as a resident bidder in Iowa.

If you answered "Yes" for each question above, your company qualifies as a resident bidder. Please complete Parts B and D of this form.

If you answered "No" to one or more questions above, your company is a nonresident bidder. Please complete Parts C and D of this form.

## To be completed by resident bidders

## Part B

My company has maintained offices in Iowa during the past 3 years at the following addresses:

Dates: \_\_\_\_ / \_\_\_\_ / \_\_\_\_ to \_\_\_\_ / \_\_\_\_ / \_\_\_\_ Address: \_\_\_\_\_

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

Dates: \_\_\_\_ / \_\_\_\_ / \_\_\_\_ to \_\_\_\_ / \_\_\_\_ / \_\_\_\_ Address: \_\_\_\_\_

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

Dates: \_\_\_\_ / \_\_\_\_ / \_\_\_\_ to \_\_\_\_ / \_\_\_\_ / \_\_\_\_ Address: \_\_\_\_\_

*You may attach additional sheet(s) if needed.* City, State, Zip: \_\_\_\_\_

## To be completed by non-resident bidders

## Part C

1. Name of home state or foreign country reported to the Iowa Secretary of State:

\_\_\_\_\_

2. Does your company's home state or foreign country offer preferences to bidders who are residents?  Yes  No

3. If you answered "Yes" to question 2, identify each preference offered by your company's home state or foreign country and the appropriate legal citation.

\_\_\_\_\_

\_\_\_\_\_

*You may attach additional sheet(s) if needed.*

## To be completed by all bidders

## Part D

I certify that the statements made on this document are true and complete to the best of my knowledge and I know that my failure to provide accurate and truthful information may be a reason to reject my bid.

Firm Name: \_\_\_\_\_

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

**You must submit the completed form to the governmental body requesting bids  
per 875 Iowa Administrative Code Chapter 156.  
This form has been approved by the Iowa Labor Commissioner.**

## Worksheet: Authorization to Transact Business

This worksheet may be used to help complete Part A of the Resident Bidder Status form. If at least one of the following describes your business, you are authorized to transact business in Iowa.

- Yes  No      My business is currently registered as a contractor with the Iowa Division of Labor.
- Yes  No      My business is a sole proprietorship and I am an Iowa resident for Iowa income tax purposes.
- Yes  No      My business is a general partnership or joint venture. More than 50 percent of the general partners or joint venture parties are residents of Iowa for Iowa income tax purposes.
- Yes  No      My business is an active corporation with the Iowa Secretary of State and has paid all fees required by the Secretary of State, has filed its most recent biennial report, and has not filed articles of dissolution.
- Yes  No      My business is a corporation whose articles of incorporation are filed in a state other than Iowa, the corporation has received a certificate of authority from the Iowa secretary of state, has filed its most recent biennial report with the secretary of state, and has neither received a certificate of withdrawal from the secretary of state nor had its authority revoked.
- Yes  No      My business is a limited liability partnership which has filed a statement of qualification in this state and the statement has not been canceled.
- Yes  No      My business is a limited liability partnership which has filed a statement of qualification in a state other than Iowa, has filed a statement of foreign qualification in Iowa and a statement of cancellation has not been filed.
- Yes  No      My business is a limited partnership or limited liability limited partnership which has filed a certificate of limited partnership in this state, and has not filed a statement of termination.
- Yes  No      My business is a limited partnership or a limited liability limited partnership whose certificate of limited partnership is filed in a state other than Iowa, the limited partnership or limited liability limited partnership has received notification from the Iowa secretary of state that the application for certificate of authority has been approved and no notice of cancellation has been filed by the limited partnership or the limited liability limited partnership.
- Yes  No      My business is a limited liability company whose certificate of organization is filed in Iowa and has not filed a statement of termination.
- Yes  No      My business is a limited liability company whose certificate of organization is filed in a state other than Iowa, has received a certificate of authority to transact business in Iowa and the certificate has not been revoked or canceled.

**LABOR SERVICES DIVISION[875]**

**Adopted and Filed**

Pursuant to the authority of Iowa Code section 73A.21, the Labor Commissioner hereby adopts a new Chapter 156, "Bidder Preferences in Government Contracting," Iowa Administrative Code.

This amendment adopts new rules concerning preferences for resident bidders on government construction projects. The new chapter sets forth requirements for a public body involved in a public improvement and sets forth enforcement procedures.

Notice of Intended Action was published in the October 30, 2013, Iowa Administrative Bulletin as **ARC 1160C**. Public comments regarding the proposed rules were received. Commenters stated that some of the rules could be misinterpreted and that some of the rules were beyond the statutory authority of Iowa Code section 73A.21. Commenters expressed ideas on how to make the bidding process more efficient. Commenters also questioned the constitutionality of Iowa Code section 73A.21. One commenter suggested adding compliance with Iowa Code chapter 91C as a basis to find that a company is authorized to transact business in Iowa.

These rules are not identical to those published under Notice of Intended Action. Some changes are technical; other more substantive changes are described below.

References to "domicile" were removed from several rules.

Subrule 156.2(1) was changed to clarify that the requirements apply only to a project to be awarded to the lowest responsible bidder; to clarify that only office addresses, not construction worksites, must be reported; to remove a reference to perjury; and to change the deadline for submitting a statement to the public body.

Paragraph 156.2(2)"b" was changed by deleting the phrase "under this Act."

Subrule 156.2(3) was changed by adding new paragraph "k" concerning construction contractor registration, and by clarifying that compliance with only one of the lettered paragraphs in the subrule is necessary.

Paragraph 156.2(4)"b" was changed by adding the phrase "if applicable."

In rule 875—156.3(73A), the term "public body" replaced the term "nonresident bidder."

A new rule 875—156.9(73A) containing a severability clause was added.

The principal reason for adoption of this amendment is to implement legislative intent. No variance procedures are included in these rules because variance provisions are set forth in 875—Chapter 1.

After analysis and review of this rule making, no impact on jobs has been found.

These rules are intended to implement Iowa Code section 73A.21.

These rules shall become effective on February 12, 2014.

The following amendment is adopted.

Adopt the following new 875—Chapter 156:

CHAPTER 156

BIDDER PREFERENCES IN GOVERNMENT CONTRACTING

**875—156.1(73A) Purpose, scope and definitions.** These rules institute administrative and operational procedures for enforcement of the Act. The definitions and interpretations contained in Iowa Code section 73A.21 shall be applicable to such terms when used in this chapter.

"Act" means Iowa Code section 73A.21.

"Affiliate," when used with respect to any specified person or entity, means another person or entity that, either directly or indirectly through one or more intermediaries, controls, or is controlled by, or is under common control or ownership with, such specified person or entity.

"Commissioner" means the labor commissioner appointed pursuant to Iowa Code section 91.2, or the labor commissioner's designee.

"Division" means the division of labor of the department of workforce development.

“*Nonresident bidder*” means a person or entity that does not meet the definition of a resident bidder, including any affiliate of any person or entity that is a nonresident bidder.

“*Parent*,” when used with respect to any specified person or entity, means an affiliate controlling such specified person or entity directly or indirectly through one or more intermediaries.

“*Public body*” means the state and any of its political subdivisions, including a school district, public utility, or the state board of regents.

“*Public improvement*” means a building or other construction work to be paid for in whole or in part by the use of funds of the state, its agencies, and any of its political subdivisions and includes road construction, reconstruction, and maintenance projects.

“*Public utility*” includes municipally owned utilities and municipally owned waterworks.

“*Resident bidder*” means a person or entity authorized to transact business in this state and having a place of business for transacting business within the state at which it is conducting and has conducted business for at least three years prior to the date of the first advertisement for the public improvement. If another state or foreign country has a more stringent definition of a resident bidder, the more stringent definition is applicable as to bidders from that state or foreign country.

“*Resident labor force preference*” means a requirement in which all or a portion of a labor force working on a public improvement is a resident of a particular state or country.

“*Subsidiary*,” when used with respect to any specified person or entity, is an affiliate controlled by such specified person or entity directly or indirectly through one or more intermediaries.

#### **875—156.2(73A) Reporting of resident status of bidders.**

**156.2(1) *Reporting to public body.*** When a contract for a public improvement is to be awarded to the lowest responsible bidder, the public body shall request a statement from each bidder regarding the bidder’s resident status. The statement shall be on the form designated by the commissioner. The statement shall require the bidder to certify whether the bidder is a resident bidder or a nonresident bidder. In the case of a resident bidder, the statement shall require the resident bidder to identify each office at which the resident bidder has conducted business in the state during the previous three years and the dates on which the resident bidder conducted business at each office. In the case of a nonresident bidder, the statement shall require the nonresident bidder to identify the nonresident bidder’s home state or foreign country as reported to the Iowa secretary of state, to identify each preference offered by the nonresident bidder’s home state or foreign country, and to certify that, except as set forth on the form, there are no other preferences offered by the nonresident bidder’s home state or foreign country. The statement shall include such additional information as requested by the commissioner. The statement must be signed by an authorized representative of the bidder. A fully completed statement shall be deemed to be incorporated by reference into all project bid specifications and contract documents with any bidder on a public improvement. Failure to provide the statement with the bid may result in the bid being deemed nonresponsive. This may result in the bid being rejected by the public body.

#### **156.2(2) *Determining residency status.***

*a.* For purposes of the Act, a person or entity is a resident bidder if the person or entity:

(1) Is authorized to transact business in Iowa; and

(2) Has had one or more places of business in Iowa at which it is conducting or has conducted business in this state for at least three years immediately prior to the date of the first advertisement for the public improvement.

*b.* If the person or entity is a resident of a state or foreign country that has a more stringent definition than is set forth in paragraph 156.2(2)“*a*” for determining whether a person or entity in that state or country is a resident bidder, then the more stringent definition applies.

**156.2(3) *Determining authorization to transact business.*** A person or entity is authorized to transact business in the state if one or more of the following accurately describes the person or entity:

*a.* In the case of a sole proprietorship, the sole proprietor is an Iowa resident for Iowa income tax purposes;

*b.* In the case of a general partnership or joint venture, more than 50 percent of the general partners or joint venture parties are residents of Iowa for Iowa income tax purposes;

c. In the case of a limited liability partnership which has filed a statement of qualification in this state, the statement has not been canceled;

d. In the case of a limited liability partnership whose statement of qualification is filed in a state other than Iowa, the limited liability partnership has filed a statement of foreign qualification in Iowa and a statement of cancellation has not been filed pursuant to Iowa Code section 486A.105(4);

e. In the case of a limited partnership or limited liability limited partnership whose certificate of limited partnership is filed in this state, the limited partnership or limited liability limited partnership has not filed a statement of termination;

f. In the case of a limited partnership or a limited liability limited partnership whose certificate of limited partnership is filed in a state other than Iowa, the limited partnership or limited liability limited partnership has received notification from the Iowa secretary of state that the application for certificate of authority has been approved and no notice of cancellation has been filed by the limited partnership or the limited liability limited partnership;

g. In the case of a limited liability company whose certificate of organization is filed in this state, the limited liability company has not filed a statement of termination;

h. In the case of a limited liability company whose certificate of organization is filed in a state other than Iowa, the limited liability company has received a certificate of authority to transact business in this state and the certificate has not been revoked or canceled;

i. In the case of a corporation whose articles of incorporation are filed in this state, the corporation (1) has paid all fees required by Iowa Code chapter 490, (2) has filed its most recent biennial report, and (3) has not filed articles of dissolution;

j. In the case of a corporation whose articles of incorporation are filed in a state other than Iowa, the corporation (1) has received a certificate of authority from the Iowa secretary of state, (2) has filed its most recent biennial report with the secretary of state, and (3) has neither received a certificate of withdrawal from the secretary of state nor had its authority revoked; or

k. The person or entity is registered with the Iowa division of labor as a construction contractor pursuant to Iowa Code chapter 91C.

**156.2(4) *Determining if bidder has conducted business in state.*** In order to determine if a bidder has a place of business for transacting business within Iowa at which it is conducting and has conducted business for at least three years prior to the date of the first advertisement of the public improvement, the bidder shall meet the following criteria for the three-year period prior to the first advertisement for the public improvement:

a. Continuously maintained a place of business for transacting business in Iowa that is suitable for more than receiving mail, telephone calls, and e-mails; and

b. Conducted business in the state for each of those three years and filed an Iowa income tax return, if applicable, made payments to the Iowa unemployment insurance fund, if applicable, and maintained an Iowa workers' compensation policy, if applicable, in effect for each of those three years.

**875—156.3(73A) Application of preference.** When awarding a contract for a public improvement to the lowest responsible bidder, the public body shall allow a preference to a resident bidder as against a nonresident bidder that is equal to any preference given or required by the home state or foreign country in which the nonresident bidder is a resident without regard to whether such preferences are actually enforced by the applicable regulatory body in each state. If the bidder is a subsidiary of a parent that would be a nonresident bidder if such parent were to bid on the public improvement in its own name, then the public body shall allow a preference as against such bidder that is equal to the preference given or required by the home state or foreign country of the bidder's parent. In the instance of a labor force preference, a public body shall apply the same resident labor force preference to a public improvement in this state as would be required in the construction of a public improvement by the home state or foreign country of the nonresident bidder, or the parent of a resident bidder if the parent would qualify as a nonresident bidder if such parent were to bid on the public improvement in its own name.

A preference shall not be applied to a subcontractor unless the home state or foreign country of the nonresident bidder to whom the contract was awarded would apply a preference to the subcontractor.

Specific methods of calculating and applying a preference shall mirror those that apply in the home state or foreign country of the nonresident bidder to whom the contract was awarded. In the event that the specific method used by the nonresident bidder's home state or foreign country cannot be determined, the calculation for a labor force preference shall include only the labor force working on the public improvement in Iowa on a regular basis calculated by pay period.

**875—156.4(73A) Complaints regarding alleged violations of the Act.**

**156.4(1) *Complaints.*** Any person with information regarding a violation of the Act may submit a written complaint to the commissioner. Any complaint must provide the information required pursuant to subrule 156.4(2) or as much of such information as is reasonably practicable under the circumstances. The completed written complaint form shall be submitted to the commissioner at Labor Services Division, 1000 East Grand Avenue, Des Moines, Iowa 50319.

**156.4(2) *Written complaint form.*** The commissioner shall prepare a written complaint form that a person with information regarding a potential violation of the Act may submit pursuant to subrule 156.4(1). The written complaint form shall request the following information: the name, address, telephone number, and e-mail address of the complainant; the name of the bidder that is believed to have violated the Act; a description of any relationships between the complainant and the bidder; an identification of the public body to which the bidder submitted a bid; the home state or foreign country of the bidder; a description of the goods and services provided under the bid; and such additional information as requested by the commissioner.

**156.4(3) *Availability of written complaint form.*** The written complaint form shall be available in all division offices and on the department of workforce development's Internet Web site.

**875—156.5(73A) Nonresident bidder record-keeping requirements.** While participating in a public improvement, a nonresident bidder from a home state or foreign country with a resident labor force preference shall make and keep, for a period of not less than three years, accurate records of all workers employed by the contractor or subcontractor on the public improvement. The records shall include each worker's name, address, telephone number if available, social security number, trade classification, and starting and ending date of employment.

**875—156.6(73A) Investigations; determination of civil penalty.** The commissioner or an authorized designee shall cause an investigation to be made into charges of violations of the Act, including allegations set forth in a written complaint.

**156.6(1) *Investigative powers.*** The commissioner or the authorized designee shall have the following powers:

*a. Hearings.* The commissioner may hold hearings and investigate charges of violations of the Act.

*b. Entry into place of employment.* The commissioner may, consistent with due process of law, enter any place of employment to inspect records concerning labor force residency, to question an employer or employee, and to investigate those facts, conditions, or matters as are deemed appropriate in determining whether any person has violated the provisions of the Act. The commissioner shall only make an entry into a place of employment in response to a written complaint.

*c. Residency of workers.* The commissioner may investigate and ascertain the residency of a worker engaged in any public improvement in this state.

*d. Oaths; depositions; subpoenas.* The commissioner may administer oaths, take or cause to be taken deposition of witnesses, and require by subpoena the attendance and testimony of witnesses and the production of all books, registers, payrolls, and other evidence relevant to a matter under investigation or hearing.

*e. Employment of personnel.* The commissioner may employ qualified personnel as are necessary for the enforcement of Iowa Code section 73A.21. The personnel shall be employed pursuant to the merit system provisions of Iowa Code chapter 8A, subchapter IV.

*f. Request for records.* The commissioner shall require a contractor or subcontractor to file, within 10 days of receipt of a request, any records enumerated in rule 875—156.5(73A). If the contractor or subcontractor fails to provide the requested records within 10 days, the commissioner may direct, within 15 days after the end of the 10-day period, that the fiscal or financial office charged with the custody and disbursement of funds of the public body that contracted for construction of the public improvement or undertook the public improvement, to withhold immediately from payment to the contractor or subcontractor up to 25 percent of the amount to be paid to the contractor or subcontractor under the terms of the contract or written instrument under which the public improvement is being performed. The amount withheld shall be immediately released upon receipt by the public body of a notice from the commissioner indicating that the request for records as required by this paragraph has been satisfied.

**156.6(2) Division determination.** Upon conclusion of an investigation, the commissioner or an authorized designee shall issue a written determination to the party that was the subject of the investigation. The determination shall indicate whether or not the division finds a violation of the Act by the party. If the determination indicates that the party engaged in a violation of the Act, the determination shall also indicate the remedies the division intends to pursue as a result of the violation.

**156.6(3) Informal conference.** A party seeking review of the division's determination pursuant to this rule may file a written request for an informal conference. The request must be received by the division within 15 days after the date of issuance of the division's determination. During the conference, the party seeking review may present written or oral information and arguments as to why the division's determination should be amended or vacated. The division shall consider the information and arguments presented and issue a written decision advising all parties of the outcome of the informal conference.

**875—156.7(73A) Remedies.** Following the conclusion of the informal conference, or following the expiration of the time in which a party may file a written request for an informal conference, the division may pursue the following remedies.

**156.7(1) Injunctive relief.** If the division determines that a violation of the Act has occurred, the division may sue for injunctive relief against the awarding of a contract, the undertaking of a public improvement, or the continuation of a public improvement.

**156.7(2) Civil penalty.** Any person or entity that violates the provisions of this chapter is subject to a civil penalty in an amount not to exceed \$1,000 for each violation found in a first investigation by the division, not to exceed \$5,000 for each violation found in a second investigation by the division, and not to exceed \$15,000 for a third or subsequent violation found in any subsequent investigation by the division. Each violation of this chapter for each worker and for each day the violation continues constitutes a separate and distinct violation. In determining the amount of the penalty, the division shall consider the appropriateness of the penalty to the person or entity charged, upon determination of the gravity of the violation(s). The collection of these penalties shall be enforced in a civil action brought by the attorney general on behalf of the division.

**875—156.8(73A) Compliance with federal law.** If it is determined that application of this chapter and the Act may cause denial of federal funds which would otherwise be available for a public improvement, or would otherwise be inconsistent with requirements of any federal law or regulation, the application of this chapter shall be suspended to the extent necessary to prevent denial of the funds or to eliminate the inconsistency with federal requirements.

**875—156.9(73A) Severability.** If any rule under this chapter, any portion of a rule under this chapter, or the applicability of any rule under this chapter to any person or circumstance is held invalid by a

court, the remainder of these rules or the rules' applicability to other persons or circumstances shall not be affected.

These rules are intended to implement Iowa Code section 73A.21.

[Filed 12/16/13, effective 2/12/14]

[Published 1/8/14]

EDITOR'S NOTE: For replacement pages for IAC, see IAC Supplement 1/8/14.

BID PROPOSAL FORM

**CLINTON COUNTY COURTHOUSE  
ROOFING REPLACEMENT**

The bidder hereby certifies that they are the only person or persons interested in this proposal as principals; that an examination has been made of the plans, specifications, and contract form, including the special provision contained herein, and of the site of the work, and the bidder understands that the quantities of work shown herein are approximate only and are subject to increase or decrease; and further understand that all quantities of work, whether increased or decreased, are to be performed at the unit price as stipulated herein; the bidder proposes to furnish all necessary machinery, equipment, tools, labor and other means of construction, and to furnish all materials specified in the manner and time prescribed and to do the work at the prices herein set out.

Accompanying this proposal in a separate envelope is a cashier's or certified check payable to the County Treasurer, Clinton County, Iowa, drawn on a bank in Iowa or a bank chartered under the laws of the United States, in the amount of ten percent (10%) of the bid submitted; or a bid bond in the penal sum of ten percent (10%) of the bid submitted executed by the bidder and an acceptable Corporate Surety. It is understood that this proposal guarantee will be retained in the event the formal contract or bond is not executed, if award is made to the undersigned.

The bidder further agrees to execute a formal contract and bond, if required by the contract documents, within seven (7) days of the award of the contract by the County, and that they will commence work on or about ten (10) days after the date of the contract, and will complete the work within the specified contract period or pay the liquidated damages stipulated in the contract documents.

The bidder acknowledges receipt of the following addendum:

_____	Dated: _____
_____	Dated: _____
_____	Dated: _____

PRINCIPAL:

\_\_\_\_\_  
Contractor

\_\_\_\_\_  
Address

Individual ( ) Partnership ( ) Corporation ( )

\_\_\_\_\_  
City

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

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

\_\_\_\_\_  
Title

\_\_\_\_\_  
Date



**BID BOND**

**CLINTON COUNTY COURTHOUSE  
ROOFING REPLACEMENT**

KNOWN ALL MEN BY THESE PRESENTS, that we \_\_\_\_\_ as Principal (Contractor), and \_\_\_\_\_, as Surety, are held and firmly bound unto the County of Clinton, Iowa (County), in the penal sum of \_\_\_\_\_ in lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, and successors, jointly and severally, firmly by these presents. The condition of this obligation is such that whereas the Principal has submitted the accompanying bid, dated \_\_\_\_\_ day of \_\_\_\_\_, 2016, for the Clinton County Courthouse Roofing Replacement.

NOW, THEREFORE, if the Principal shall not withdraw said bid within the period specified therein during the opening of same, or if no period specified, within sixty (60) days after said opening, and shall within the period specified therefore, if no period be specified, within seven (7) days after the prescribed forms are presented to him for signature, enter into a written contract with the Municipality, in accordance with the bid as accepted, and give bond with good and sufficient surety or sureties, as may be required for the faithful performance and proper fulfillment of such contract, then the above obligation shall be void and of no effect, otherwise to remain in full force and virtue.

By virtue of statutory authority, the full amount of this bid bond shall be forfeited to the Municipality in liquidations of damages sustained in the event that the afore described bidder, Principal, fails to execute the contract and provide the bond as provided in the specifications or by law.

IN WITNESS WHEREOF, the above bounden parties have executed this instrument under their several seals this \_\_\_\_\_ day of \_\_\_\_\_, 2016, the name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representative pursuant to authority of its governing body.

**PRINCIPAL:**

**SURETY:**

\_\_\_\_\_  
Contractor

\_\_\_\_\_  
Surety Company

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

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

\_\_\_\_\_  
Title

\_\_\_\_\_  
Title

\_\_\_\_\_  
Date

\_\_\_\_\_  
Date



**SECTION 004400**

**BID PROPOSAL SUBMITTAL CHECKLIST**

**CLINTON COUNTY COURTHOUSE  
ROOFING REPLACEMENT**

Checking your bid submittal, before filing, against the following checklist will assist preventing minor errors or omissions, which could result in disqualifications of your bid because of technicalities.

1. Bid Proposal must be submitted on forms provided:

BID PROPOSAL SCHEDULE  
Bid Form 1A

BID PROPOSAL FORM  
Bid Form 1B

2. Acknowledge receipt of all addendum(s) on Bid Proposal (Bid Form 1B).
3. Bid Proposal (Bid Form 1B) must be SIGNED by an authorized agent.
5. Bid Proposal must be accompanied by a BID BOND in an amount not less than ten percent (10%) of the bid submitted or Certified check made payable to the "County of Clinton" in an amount not less than ten percent (10%) of the bid submitted.

Bid Bond, if used, must be SIGNED by both the bidder and the Surety or Surety's Agent. Signature of Surety's Agent must be supported by accompanying Power of Attorney.

6. Bid Proposals must be submitted in a SEALED envelope, which shall be addressed as follows:

Office of County Auditor  
Clinton County Administration Building  
1900 N. 3<sup>rd</sup> Street  
Clinton, Iowa, 52732

and shall be clearly labeled as follows:

Clinton County Courthouse Roof Replacement

9. A fully executed and SIGNED Bidder Status Form MUST accompany each bid.
10. Sufficient time should be allowed for mailed bids to be delivered by normal Postal operation. Late bids will not be considered.
11. Bid must not be qualified in any way or contain any reservations not made optional in the Bid Form provided to bidders.

This SPECIAL NOTICE is issued as a reminder against common irregularities in bids, and is not a Contract Document.

**END OF SECTION 004400**



**SECTION 005100**

**CLINTON COUNTY COURTHOUSE  
ROOFING REPLACEMENT**

**CONSTRUCTION SCHEDULE AND LIQUIDATED DAMAGES**

Work herein provided for shall be commenced within 10 days after the Notice to Proceed has been issued and shall be completed as follows: September 30, 2016.

For each calendar day that any work shall remain uncompleted beyond the specified completion date, \$1,000.00 per calendar day will be assessed, not as a penalty but as predetermined and agreed liquidated damages. The Contractor will be separately invoiced for this amount, and final payment will be withheld until payment has been made of this invoice.

The assessment of liquidated damages shall not constitute a waiver of the County's right to collect any additional damages which the County may sustain by failure of the Contractor to carry out the terms of his contract.

An extension of the contract period may be granted by the County for any of the following reasons:

1. Additional work resulting from a modification of the plans.
2. Delays caused by the County.
3. Other reasons beyond the control of the Contractor, which in the County's opinion, would justify such extension.

**END OF SECTION 005100**



**COUNTY OF CLINTON, IOWA  
PUBLIC IMPROVEMENT CONTRACT  
CLINTON COUNTY COURTHOUSE  
ROOFING REPLACEMENT**

THIS IMPROVEMENT CONTRACT (the Contract), made in triplicate, dated for reference purposes the \_\_\_\_\_ day of \_\_\_\_\_, 2016, between the County of Clinton, Iowa, by the Clinton County Board of Supervisors (County) and (Insert Contractors Name) of the County of (Insert Contractors Address City, State).

For and in consideration of the mutual covenants herein contained, the parties hereto agree as follows:

**CONTRACTOR AGREES:**

1. To furnish all material and equipment and to perform all labor necessary for the Clinton County Courthouse Roofing Replacement (the Project).
2. Contract Documents shall mean and include the following: All ordinances and resolutions heretofore adopted by the County having to do with the Project; the Notice to Bidders; the Contractor's Proposal; and the Plans, Specifications, and General Requirements as adopted by the County for the Project.
3. All materials used by the Contractor in the Project shall be the best of their several kinds and shall be put in place to the satisfaction of the County.
4. The Contractor shall remove any materials rejected by the County as defective or improper, or any of said work condemned as unsuitable or defective, and the same shall be replaced or done anew to the satisfaction of the County at the cost and expense of the Contractor.
5. Five percent (5%) of the Contract price shall be retained by the County for a period of thirty (30) days after final completion and acceptance of the Project by the County to pay any claim that may be filed within said time for labor and materials done and furnished in connection with the performance of this Contract and for a longer period if such claims are not adjusted within that time, as provided in Iowa Code Chapter 573. The County shall also retain additional sums to protect itself against any claim that has been filed against it for damages to persons or property arising through the prosecution of the work and such sums shall be held by the County until such claims have been settled, adjudicated or otherwise disposed of.
6. The Contractor has read and understands the specifications including General Requirements and has examined and understands the plans herein referred to and agrees not to plead misunderstanding or deception because of estimates of quantity, character, location or other conditions surrounding the same.
7. In addition to the guarantee provided for in the specifications, the Contractor shall also make good any other defect in any part of the Project due to improper construction notwithstanding the fact that said Project may have been accepted and fully paid for by the County, and the Contractor's bond shall be security therefore.
8. The Contractor shall fully complete the Project under this Contract shall be completed as follows: September 30, 2016.
9. To the fullest extent permitted by law, the Contractor shall indemnify and hold harmless the County from and against all claims, damages, losses and expenses, including but not limited to attorneys' fees, arising out of or

resulting from performance of the Contract, provided that such claim, damages, loss or expense is attributable to bodily injury, sickness, disease or death, or injury to or destruction of property (other than the Project itself) including loss of use resulting there from, but only to the extent caused in whole or in part by negligent acts or omissions of the Contractor, the Contractor's subcontractor, or anyone directly or indirectly employed by the Contractor or the Contractor's subcontractor or anyone for whose acts the Contractor or the Contractor's subcontractor may be liable, regardless of whether or not such claim, damage, loss or expense is caused in part by a party indemnified hereunder.

**THE COUNTY AGREES:**

Upon the completion of the Contract, and the acceptance of the Project by the Clinton County Board of Supervisors, the County agrees to pay the Contractor as full compensation for the complete performance of this Contract, the amount determined for the total number of units completed at the unit prices stated in the Contractor's Proposal and less any liquidated damages provided for in the Contract Documents. The number of units stated in the plans and specifications is approximate only and the final payment shall be made by the work covered by the Contract.

CONTRACT AMOUNT \$ \_\_\_\_\_ (Insert Contract Amount)

**FURTHER CONDITIONS**

The Contractor hereby represents and guarantees that it has not, nor has any other person for or in its behalf, directly or indirectly, entered into any arrangement or agreement with any other bidder, or with any public officer, whereby it has paid or is to pay any other bidder or public officer any sum of money or anything of value whatever in order to obtain this Contract; and it has not, nor has another person for or in its behalf directly or indirectly, entered into any agreement or arrangement with any other person, firm, corporation or association which tends to or does lessen or destroy free competition in the letting of this Contract and agrees that in case it hereafter be established that such representations or guarantees, or any of them are false, it will forfeit and pay not less than ten percent (10%) of the Contract price but in no event be less than the amount specified as liquidated damages to the County.

The surety on the bond furnished for this Contract, shall in addition to all other provisions, be obligated to the extent provided for by Iowa Code § 573.6, relating to this Contract, which provisions apply to said bond.

The Contractor agrees, and its bond shall be surety therefore, that it will keep and maintain the Project in good repair for a period of two (2) year(s) after acceptance of the same by the County and its bond shall be security therefore.

The County of Clinton and the Contractor agree to comply with all applicable standards, orders, or regulations issued pursuant to the Clean Air Act of 1970 (42 U.S.C. 1958 (H) et. seq.) and the Federal Water Pollution Act (33 U.S.C. 1368 et. seq.) as amended, Executive Order 11738, and Environmental Protection Agency regulations (40 CFR, Part 15). Contractor shall comply with Section 103 and 107 of the Contract Work Hours and Safety Standards Act (40 USC 327-330) and Department of Labor Regulations (29 CFR, Part 5).

The County of Clinton and the Contractor agree that Davis-Bacon Federal prevailing predetermined wage rates and related labor requirements and regulations **will not apply** to work under the contract.

The County of Clinton and the Contractor agree that equipment or products authorized to be purchased with federal funding awarded for this contract must be American-made to the maximum extent feasible, in accordance with Public Law 103-121, Sections 606 (a) and (b).

**COUNTY OF CLINTON, IOWA**

**PRINCIPAL:**

By \_\_\_\_\_

\_\_\_\_\_  
Contractor

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

\_\_\_\_\_  
Title



**COUNTY OF CLINTON, IOWA  
PERFORMANCE, PAYMENT AND MAINTENANCE BOND**

KNOWN ALL MEN BY THESE PRESENTS: That (Insert Contractors Name) as Principal (Contractor) and \_\_\_\_\_ as Surety are held firmly bound unto the County of Clinton, Iowa (County), in the penal sum of \$ \_\_\_\_\_ (Insert Contract Amount) the same being 100% of the total price of the Contract for the Project herein referred to, lawful money of the United States of America, well and truly to be paid to said County of Clinton, and to all other parties who, under the provisions of the laws of Iowa, are intended to be protected and secured hereby for which payment we bind ourselves, our heirs, executors, successors and assigns, jointly and severally by these presents.

Dated at Clinton, Iowa, this \_\_\_\_\_ day of \_\_\_\_\_, 2016, and duly attested and sealed.

WHEREAS, the said Contractor by a Contract dated (Insert Contract Date: Month XX, 2013), incorporated herein by reference, has agreed with said County of Clinton to perform all labor and furnish all materials required to be performed and furnished for the Clinton County Courthouse Roofing Replacement (the Project) according to the Contract and Construction Documents prepared therefore.

It is expressly understood and agreed by the Contractor and Surety bond that the following provisions are a part of this Bond and are binding upon said Contractor and Surety, to-wit:

1. **PERFORMANCE BOND:** The Contractor shall well and faithfully observe, perform, fulfill and abide by each and every covenant, condition and part of said Contract and Contract Documents, by reference made a part hereof, for the Project, and shall indemnify and save harmless the County from all outlay and expense incurred by the County by reason of the Contractor's default of failure to perform as required. The Contractor shall also be responsible for the default or failure to perform as required under the Contract and Contract Documents by all its subcontractors, suppliers, agents, or employees furnishing materials or providing labor in the performance of the Contract.
2. **PAYMENT BOND:** The Contractor and the Surety shall pay all just claims submitted by persons, firms, subcontractors, and corporations furnishing materials for or performing labor in the performance of the Contract on account of which this Bond is given, including but not limited to claims for all amounts due for labor, materials, lubricants, oil, gasoline, repairs on machinery, equipment and tools, consumed or used by the Contractor or any subcontractor, wherein the same are not satisfied out of the portion of the contract price which the County is required to retain until completion of the improvement, but the Contractor and Surety shall not be liable to said persons, firms, or corporations unless the claims of said claimants against said portion of the contract price shall have been established as provided by law. The Contractor and Surety hereby bind themselves to the obligations and conditions set forth in Chapter 573, Code of Iowa, which by this reference is made a part hereof as though fully set out herein.
3. **MAINTENANCE BOND:** The Contractor and the Surety hereby agree, at their own expense:
  - A. To remedy any and all defects that may develop in or result from work to be performed under the Contract within the period of Two (2) year(s) from the date of acceptance of the work under the Contract by the Board of Supervisors of the County of Clinton, Iowa, by reason of defects in workmanship or materials used in construction of said work;
  - B. To keep all work in continuous good repair; and
  - C. To pay the County the reasonable costs of monitoring and inspection to assure that any defects are remedied, and to repay the County all outlay and expense incurred as a result of Contractor's and Surety's failure to remedy any defect as required by this section.

Contractor's and Surety's agreement herein made extends to defects in workmanship or materials not discovered or known to the County at the time such work was accepted.

NOW, THEREFORE, the condition of this obligation is such that if the said Contractor shall perform all of the work contemplated by the Contract in a workmanlike manner and in strict compliance with the plans and specifications, and will pay all claims for labor and materials used in connection with said Project, to indemnify the said County for all damages, costs and expense incurred by reason of damages to persons or property arising through the performance of said Contract, and will reimburse the County for any outlay of money which it may be required to make in order to complete said Contract according to the Construction Documents and will maintain in good repair said Project for the period specified in the Contract where this bond is obligated for maintenance, and will faithfully comply with all of the provisions of Section 573 of the Code of Iowa, then this obligation shall be null and void, otherwise it shall remain in full force and effect.

All the conditions of this bond must be fully complied with before the Contractor or the Surety will be released.

The Contract, Contractor's Proposal, and Construction Documents shall be considered as a part of this Bond just as if their terms were repeated herein.

Dated at Clinton, Iowa this \_\_\_\_\_ day of \_\_\_\_\_, 2016.

**COUNTY OF CLINTON, IOWA**

**PRINCIPAL:**

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

\_\_\_\_\_  
Contractor

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

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Title

**SURETY:**

\_\_\_\_\_  
Surety Company

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

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Title

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

\_\_\_\_\_  
Telephone

\_\_\_\_\_  
Attorney In-Fact

**SECTION 005400**

**COUNTY OF CLINTON, IOWA  
SALES AND USE TAX EXEMPTION CERTIFICATE**

The County of Clinton, as a designated exempt entity awarding construction contracts on or after January 1, 2003, may issue special exemption certificates to contractors and subcontractors, allowing them to purchase, or withdraw from inventory, materials for the contract free from sales tax pursuant to Iowa Code Sections: 422.42 (15) & (16), and 422.47 (5). This special exemption certificate may also allow a manufacturer of building materials to consume materials in the performance of a construction contract without owing tax on the fabricated cost of those materials. If the Jurisdiction, at its option, decides to utilize this exemption option, it will so state by special provision and publication in the Notice of Hearing and Letting.

1. Upon award of contract, the Jurisdiction will register the contract, Contractor, and each subcontractor with the Iowa Department of Revenue and Finance; and distribute tax exemption certificates and authorization letters to the Contractor and each subcontractor duly approved by the Jurisdiction in accordance with Section 1030, 1.10, B. These documents allow the Contractor and subcontractors to purchase materials for the contract free from sales tax. The Contractor and subcontractors may make copies of the tax exemption certificate and provide a copy to each supplier providing construction material. These tax exemption certificates and authorization letters are applicable only for the work under the contract.
2. At the time the Contractor requests permission to sublet in accordance with said Section 1030, 1.10, B, the Contractor shall provide a listing to the Jurisdiction identifying all subcontractors, including the Federal Employer Identification Number (FEIN) for the Contractor and all subcontractors, as well as the name, address, telephone number, and a representative of the organization which will perform the work, a description of the work to be sublet, and the associated cost.
3. The Contractor and each subcontractor shall comply with said Iowa Code Sales Tax requirements, shall keep records identifying the materials and supplies purchased and verify that they were used on the contract, and shall pay tax on any materials purchased tax-free and not used on the contract.

**PROJECT INFORMATION REQUIREMENTS FOR  
STATE OF IOWA SALES TAX EXEMPTION CERTIFICATES  
FOR CONTRACTORS & SUBCONTRACTORS**

Please complete this form in its entirety and submit along with the executed Construction Contracts, Bonds and Certificate of Insurance. Upon receipt, the County of Clinton will work with the Iowa Department of Revenue to issue Sales Tax Exemption Certificates to the approved contractor(s) to allow for the purchase or inventory withdrawal of materials for the specified Construction Project free from State of Iowa Sales Tax.

Construction Project Name:	Clinton County Courthouse Roofing Replacement
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Project Description:	Roofing replacement for the existing portions of the building that are currently covered in asphalt shingles with new asphalt shingles. Site work and roof replacement of the center clock tower will not be included in the Scope of Work.
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Start Date (Bid letting date):	May 18, 2016
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Completion Date:	September 30, 2016
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1.	General Prime Contractor:	
	Contact Name:	
	Complete Address: (Include PO Box and Street Information)	
	City, State, Zip Code	
	Telephone Number:	
	Federal I.D. Number: (or Include Social Security Number)	
	Work Type to be Completed:	

2.	Subcontractor:	
	Complete Address: (Include PO Box and Street Information)	
	City, State, Zip Code	
	Telephone Number:	
	Federal I.D. Number: (or Include Social Security Number)	
	Work Type to be Completed:	

3.	Subcontractor:	
	Complete Address: (Include PO Box and Street Information)	
	City, State, Zip Code	
	Telephone Number:	
	Federal I.D. Number: (or Include Social Security Number)	
	Work Type to be Completed:	

**PROJECT INFORMATION**

4.	Subcontractor:	
	Complete Address: (Include PO Box and Street Information)	
	City, State, Zip Code	
	Telephone Number:	
	Federal I.D. Number: (or Include Social Security Number)	
	Work Type to be Completed:	

5.	Subcontractor:	
	Complete Address: (Include PO Box and Street Information)	
	City, State, Zip Code	
	Telephone Number:	
	Federal I.D. Number: (or Include Social Security Number)	
	Work Type to be Completed:	

6.	Subcontractor:	
	Complete Address: (Include PO Box and Street Information)	
	City, State, Zip Code	
	Telephone Number:	
	Federal I.D. Number: (or Include Social Security Number)	
	Work Type to be Completed:	

7.	Subcontractor:	
	Complete Address: (Include PO Box and Street Information)	
	City, State, Zip Code	
	Telephone Number:	
	Federal I.D. Number: (or Include Social Security Number)	
	Work Type to be Completed:	

### **SPECIAL PROVISIONS**

An out-of-State contractor, before commencing a contract in excess of \$5,000.00, shall, pursuant to Iowa Code 91C.7(2), file a bond with the Division of Labor Services of the Department of Employment Services. The Surety Bond shall be executed by a Surety Company authorized to do business in the State of Iowa, and the bond shall be continuous in nature until canceled by the Surety with not less than 30 days written notice to the contractor and to the Division of Labor Services of the Department of Employment Services indicating the Surety's desire to cancel the bond. The bond shall be in the sum of the greater of the following amounts:

- a. \$1,000.00
- b. 5% of the contract price

Release of the bond shall be conditioned upon the payment of all taxes, including contributions due under the unemployment compensation insurance system, penalties, interest, and related fees, which may accrue to the State of Iowa or its subdivision on account of the execution and performance of the contract. If any time during the term of the bond the Department of Revenue and Finance determines that the amount of the bond is not sufficient to cover the tax liabilities accruing to the State of Iowa or its subdivision, the Department will require the bond to be increased by an amount the Department deems sufficient to cover the tax liabilities accrued and to accrue under the contract, as provided under Iowa Code 91C.7(2).

If it is determined that this subsection may cause denial of Federal Funds which would otherwise be available, or would otherwise be inconsistent with requirements of Federal law, this section shall be suspended, but only the extent necessary to prevent denial of the funds or to eliminate the inconsistency with Federal requirements.

**END OF SECTION 005400**

**SECTION 005500**

**INSURANCE SCHEDULE B**

**INSURANCE REQUIREMENTS FOR ARTISAN CONTRACTORS OR GENERAL CONTRACTORS TO THE COUNTY OF CLINTON**

1. All policies of insurance required hereunder shall be with an insurer authorized to do business in Iowa. All insurers shall have a rating of A or better in the current A.M. Best Rating Guide.
2. All Certificates of Insurance shall be endorsed to provide a thirty (30) day notice of cancellation to the County of Clinton, except for a ten (10) day notice for non-payment, if cancellation is prior to the expiration date.
3. Contractor shall furnish a signed Certificate of Insurance to the County of Clinton, Iowa for the coverage required in Exhibit I. Such Certificates shall include copies of the following endorsements:
  - a) Commercial General Liability policy is primary and non-contributing
  - b) Commercial General Liability additional insured endorsement-See Exhibit I
  - c) Governmental Immunities Endorsement

\_\_\_\_\_ shall also be required to provide Certificates of Insurance for all subcontractors and all sub-sub contractors who perform work or services pursuant to the provisions of this contract. Said certificates shall meet the insurance requirements as required of \_\_\_\_\_.

4. Each certificate shall be submitted to the County of Clinton.
5. Failure to provide minimum coverage shall not be deemed a waiver of these requirements by the County of Clinton. Failure to obtain or maintain the required insurance shall be considered a material breach of this agreement.
6. Contractor shall be required to carry the following minimum coverage/limits or greater if required by law or other legal agreement; as per Exhibit I.

This coverage shall be written on an occurrence, not claims made form. Form CG 25 03 03 97 "Designated Construction Project (s) General Aggregate Limit" shall be included. All deviations or exclusions from the standard ISO commercial general liability form CG 001 shall be clearly identified.

Governmental Immunity endorsement identical or equivalent to form attached.

## INSURANCE SCHEDULE B (Continued)

### INSURANCE REQUIREMENTS FOR ARTISAN CONTRACTORS OR GENERAL CONTRACTORS TO THE COUNTY OF CLINTON

Additional Insured Requirement – See Exhibit I.

The County of Clinton, including all its elected and appointed officials, all its employees and volunteers, all its boards, commissions and/or authorities and their board members, employees and volunteers shall be named as an additional insured on General Liability Policies for all classes of contractors.

Class A, B, and C Contractors shall include coverage for The County of Clinton as an additional insured including ongoing and completed operations coverage equivalent to: ISO CG 20 10 07 04 and CG 20 37 07 04.\*\*

\*ISO CG 20 10 0704 “Additional Insured-Owners, Lessees or Contractors – Scheduled Person or Organization”

\*\*ISO CG 20 37 0704 “Additional Insured – Owners, Lessees or Contractors – Completed Operations”

#### Completion Checklist

##### **Class A Contractors, Class B Contractors and Class C Contractors**

- Certificate of Liability Insurance
- Designated Construction Project(s) General Aggregate Limit CG 25 03 03 97
- Additional Insured CG 20 10 07 04
- Additional Insured CG 20 37 07 04
- Governmental Immunities Endorsement

**INSURANCE SCHEDULE B (Continued)**

**EXHIBIT I - Contractors Insurance Requirements**

Contractors shall provide The County of Clinton with a current Certificate of Insurance for this specific project, which is in conformity with this Exhibit and the Contract. The requirements below are the minimum allowable.

**CLASS A:** General Contractors, Contractors, Trade Contractors, Subcontractors, Sub-Sub Contractors, who perform the following work:

<b>Concrete</b>	<b>Paving &amp; Surfacing</b>
<b>Demolition</b>	<b>Plumbing Systems</b>
<b>Earthwork</b>	<b>Reinforcement</b>
<b>Electrical</b>	<b>Roofing &amp; Sheet Metal</b>
<b>HVAC</b>	<b>Site Utilities</b>
<b>Masonry</b>	<b>Special Construction</b>
<b>Miscellaneous Steel</b>	<b>Structural Steel &amp; Decking</b>

**General Liability (Occurrence Form Only)**

**Commercial General Liability**

General Aggregate Limit	\$2,000,000
Products-Completed Operations Aggregate Limit	\$1,000,000
Personal and Advertising Injury Limit	\$1,000,000
Each Occurrence Limit	\$1,000,000
Fire Damage Limit (any one occurrence)	\$ 50,000
Medical Payments	\$ 5,000

**Additional Insured** - The County of Clinton, including all its elected and appointed officials, all its employees and volunteers, all its boards, commissions and/or authorities and their board members, employees and volunteers shall be named as additional insured including ongoing operations CG 20 10 07 04 or equivalent, and completed operations CG 20 37 07 04 or equivalent.

**Automobile \$1,000,000 (Combined Single Limit)**

**Standard Workers Compensation – with waiver of subrogation to County of Clinton**

**Statutory for Coverage A**

**Employers Liability:**

Each Accident	\$ 100,000
Each Employee - Disease	\$ 100,000
Policy Limit - Disease	\$ 500,000

<b>Umbrella</b>	<b>\$3,000,000</b>
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**THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.**

**DESIGNATED CONSTRUCTION PROJECT(S)  
GENERAL AGGREGATE LIMIT**

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

**SCHEDULE**

Designated Construction Projects:

(If no entry appears above, information required to complete this endorsement will be shown in the Declarations as applicable to this endorsement.)

**A.** For all sums which the insured becomes legally obligated to pay as damages caused by "occurrences" under COVERAGE A (SECTION I), and for all medical expenses caused by accidents under COVRAGE C (SECTION I), which can be attributed only to ongoing operations at a single designated construction project show in the Schedule above:

1. A separate Designated Construction Project General Aggregate Limit applies to each designated construction project, and that limit is equal to the amount of the General Aggregate Limit shown in the Declarations.

2. The Designated Construction Project General Aggregate Limit is the most we will pay for the sum of all damages under COVERAGE A, except damages because of "bodily injury" or "property damage" included in the "products-completed operations hazard", and for medical expenses under COVERAGE C regardless of the number of:

- a. Insureds;
- b. Claims made or "suits" brought; or
- c. Persons or organizations making claims or bringing "suits".

3. Any payments made under COVERAGE A for damages or under COVERAGE C for medical expenses shall reduce the Designated Construction Project General Aggregate Limit for that designated construction project. Such payments shall not reduce the General Aggregate Limit shown in the Declarations nor shall they reduce any other Designated Construction Project General Aggregate Limit for any other designated construction project shown in the Schedule above.

4. The limits shown in the Declarations for Each Occurrence, Fire Damage and Medical Expense continue to apply. However, instead of being subject to the General Aggregate Limit shown in the Declarations, such limits will be subject to the applicable Designated Construction Project General Aggregate Limit.

**B.** For all sums which the insured becomes legally obligated to pay as damages caused by "occurrences" under COVERAGE A (SECTION I), and for all medical expenses caused by accidents under COVERAGE C (SECTION I), which cannot be attributed only to ongoing operations at a single designated construction project shown in the Schedule above:

- 1. Any payments made under COVERAGE A for damages or under COVERAGE C for medical expenses shall reduce the amount available under the General Aggregate Limit or the Products-Completed Operations Aggregate Limit, whichever is applicable; and
- 2. Such payments shall not reduce any Designated Construction Project General Aggregate Limit.

**C.** When coverage for liability arising out of the "products-completed operations hazard" is provided, any payments for damages because of "bodily injury" or "property damage" included in the "products-completed operations hazard" will reduce the Products-Completed Operations Aggregate Limit, and not reduce the General Aggregate Limit nor the Designated Construction Project General Aggregate Limit.

**D.** If the applicable designated construction project has been abandoned, delayed, or abandoned and then restarted, or if the authorized contracting parties deviate from plans, blueprints, designs, specifications or timetables, the project will still be deemed to be the same construction project.

**E.** The provisions of Limits of Insurance (SECTION III) not otherwise modified by this endorsement shall continue to apply as stipulated.

**THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.**

**ADDITIONAL INSURED – OWNERS, LESSEES OR  
CONTRACTORS – SCHEDULED PERSON OR  
ORGANIZATION**

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

SCHEDULE

<b>Name of Additional Insured Person(s) Or Organization(s):</b>	<b>Location(s) of Covered Operations</b>
The County of Clinton, including all its elected and appointed officials, all its employees and volunteers, all its boards, commissions and/or authorities and their board members, employees and volunteers.	
Information required to complete this Schedule, if not shown above, will be show in the Declarations.	

**A.** Section II – Who is An Insured is amended to include as an additional insured the person(s) or organization(s) shown in the Schedule, but only with respect to liability for “bodily injury”, “property damage” or “personal and advertising injury” caused, in whole or in part, by:

1. Your acts or omissions; or
2. The acts or omissions of those acting on your behalf;

in the performance of your ongoing operations for the additional insurer(s) at the location(s) designated above.

**B.** With respect to the insurance afforded to these additional insureds, the following additional exclusions apply:

This insurance does not apply to “bodily injury” or “property damage” occurring after:

1. All work, including materials, parts or equipment furnished in connection with such work, on the project (other than service, maintenance or repairs) to be performed by or on behalf of the additional insurer(s) at the location of the covered operations has been completed; or
2. That portion of “your work” out of which the injury or damage arises has been put to its intended use by any person or organization other than another contractor or subcontractor engaged in performing operations for a principal as a part of the same project.

**POLICY NUMBER:**

**COMMERCIAL GENERAL LIABILITY  
CG 20 37 07 04**

**THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.**

**ADDITIONAL INSURED – OWNERS, LESSEES, OR  
CONTRACTORS – COMPLETED OPERATIONS**

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

SCHEDULE

<b>Name of Additional Insured Person(s) Or Organization(s):</b>	<b>Location and Description of Completed Operations</b>
The County of Clinton, including all its elected and appointed officials, all its employees and volunteers, all its boards, commissions and/or authorities and their board members, employees and volunteers.	
Information required to complete this Schedule, if not shown above, will be show in the Declarations.	

- C. Section II – Who is An Insured is amended to include as an additional insured the person(s) or organization(s) shown in the Schedule, but only with respect to liability for “bodily injury” or “property damage” caused, in whole or in part, by “your work” at the location designated and described in the schedule of this endorsement performed for that additional insured and included in the “products-completed operations hazard”.

**COUNTY OF CLINTON, IOWA**  
**GOVERNMENTAL IMMUNITIES ENDORSEMENT**

1. Non-waiver of Governmental Immunity. The insurance carrier expressly agrees and states that the purchase of this policy and the including of the County of Clinton, Iowa as an Additional Insured does not waive any of the defenses of governmental immunity available to the County of Clinton, Iowa under Code of Iowa Section 670.4 as it now exists and as it may be amended from time to time.
2. Claims Coverage. The insurance carrier further agrees that this policy of insurance shall cover only those claims not subject to the defense of governmental immunity under the Code of Iowa Section 670.4 as it now exists and as it may be amended from time to time. Those claims not subject to Code of Iowa Section 670.4 shall be covered by the terms and conditions of this insurance policy.
3. Assertion of Government Immunity. The County of Clinton, Iowa shall be responsible for asserting any defense of governmental immunity, and may do so at any time and shall do so upon the timely written request of the insurance carrier.
4. Non-Denial of Coverage. The insurance carrier shall not deny coverage under this policy and the insurance carrier shall not deny any of the rights and benefits accruing to the County of Clinton, Iowa under this policy for reasons of governmental immunity unless and until a court of competent jurisdiction has ruled in favor of the defense(s) of governmental immunity asserted by the County of Clinton, Iowa.

No Other Change in Policy. The above preservation of governmental immunities shall not otherwise change or alter the coverage available under the policy.

**END OF SECTION 005500**



DOCUMENT 007213 – General Conditions of the Contract

1.1 General Conditions of the Contract

- A. “General Conditions of the Contract for Construction”, AIA Document A201, 2007 is hereby incorporated into the Procurement and Contracting Requirements by reference.

END OF DOCUMENT 007213



SUPPLEMENTARY CONDITIONS - PURPOSE

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 remain in effect.

**ARTICLE 2      OWNER**

**2.2      INFORMATION AND SERVICES REQUIRED OF THE OWNER**

Add the following Clause 2.2.3.1 to 2.2.3:

2.2.3.1 The Contractor shall compare information furnished by the Owner (including surveys and soil tests with observable physical conditions) and the Contract Documents and on the basis of such review, shall report to the Owner and Architect any conflicts, errors or omissions.

**ARTICLE 3      CONTRACTOR**

**3.6      TAXES**

Delete Paragraph and substitute the following:

The Contractor shall comply with Section 005400 “Sales Tax Use Exemption”.

**ARTICLE 5      SUBCONTRACTORS**

**5.3      SUBCONTRACTUAL RELATIONS**

Add the following Subparagraph 5.3.2 to 5.3:

5.3.2 If a Contractor, Subcontractor or Sub-Subcontractor solicits the services of another Contractor, Subcontractor or Sub-Subcontractor, the party hired to do the work becomes a Subcontractor subject to provisions of the Contract Documents pertaining to Subcontractors and Sub-Subcontractors as applicable. If applicable to the state where the Project is located, contractors are required to comply with state and city licensing regulations to perform work on the Project.

**ARTICLE 7      CHANGES IN THE WORK**

**7.3      CONSTRUCTION CHANGE DIRECTIVES**

7.3.6 In the first sentence, delete the words “a reasonable allowance for overhead and profit” and insert the words “an allowance for overhead and profit as set forth in Section 012600 “Contract Modification Procedures.”

**ARTICLE 9      PAYMENTS AND COMPLETION**

**9.10      FINAL COMPLETION AND FINAL PAYMENT**

Paragraph 9.10.1; modify the first sentence as follows:

9.10.1 “Upon receipt .....such inspection and, when the Owner and Architect finds the Work acceptable .....is due and payable.”

Add the following Clause 9.10.1.1 to 9.10.1:

9.10.1.1 The Contractor shall maintain the bond or bonds required by the Contract as required by law and at least until sixty (60) days after the Owner declares acceptance of the work of the Contractor and declares final acceptance of the Project. This addendum shall not in any manner relieve the bonding company of any obligations under the bond issued to the Contractor.

Add the following Clauses 9.10.2.1, 9.10.2.2, 9.10.2.3, and 9.10.2.4 to 9.10.2:

9.10.2.1 The affidavit referred to in G.C. 9.10.2(1) shall be on AIA Document G706.

9.10.2.2 Consent of Surety referred to in G.C. 9.10.2(4) shall be on AIA Document G707.

9.10.2.3 The affidavit referred to in G.C. 9.10.2(5) shall be on AIA Document G706A, if required by Owner.

9.10.2.4 AIA Forms referenced herein are available from one of the following addresses:

- .1 The American Institute of Architects, 1735 New York Avenue, N.W., Washington, D.C. 20006.
- .2 AIA Iowa Chapter, 1000 Walnut, Suite 101, Des Moines, Iowa 50309.

## **ARTICLE 11 INSURANCE AND BONDS**

### **11.1 CONTRACTOR'S LIABILITY INSURANCE**

Refer to Document 007316 "Insurance Requirements."

## **ARTICLE 12 UNCOVERING AND CORRECTION OF WORK**

### **12.3 ACCEPTANCE OF NON-CONFORMING WORK**

Delete "as appropriate and equitable" from the sentence and replace with "the entire cost of replacing the work as intended in the Contract Documents."

## **ARTICLE 15 CLAIMS AND DISPUTES**

### **15.1.5 CLAIMS FOR ADDITIONAL TIME**

Add the following Clauses 15.1.5.3 and 15.1.5.4 to 15.1.5:

15.1.5.3 Contractor's written claims for extension of time shall be accompanied by certified copies of records of dates, correspondence, notices, and other relevant information which will serve as proof of the events forming the basis for the claim.

15.1.5.4 Claims for additional time based on delayed shop drawing submittals, delayed material ordering and subsequent delays in shipping or other delays which could have been avoided by vigorous and timely prosecution of the work will not be considered as a valid basis for granting an extension of time.

### **15.4 ARBITRATION**

15.4 Delete entirely and other locations in "General Conditions of the Contract for Construction", AIA Document A201, 2007.

END OF DOCUMENT 007300

## SECTION 011000 - SUMMARY

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 PROJECT INFORMATION

- A. Project Identification: Clinton County Courthouse – Roofing Replacement.
  - 1. Project Location: 239 7<sup>th</sup> Avenue North, Clinton, IA 52732.
- B. Owner: Clinton County, Iowa
  - 1. Owner's Rep.: Corey Johnson – Clinton County Building Maintenance Manager
    - a. 563-543-2160
- C. Architect: IIW P.C., 4155 Pennsylvania Avenue, Dubuque, IA 52002.

#### 1.3 WORK COVERED BY CONTRACT DOCUMENTS

- A. The Work of Project is defined by the Contract Documents and consists of the following:
  - 1. The project consists of roofing replacement for the Clinton County Courthouse. The project will include roofing replacement for the existing portions of the building that are currently covered in asphalt shingles with new asphalt shingles. Work shall also consist of replacement of the existing roof covering on two small low slope roofs. Replacement of metal flashings will also be included as required. Site work and roof replacement of the center clock tower on this building will not be included in the Scope of Work
- B. Type of Contract:
  - 1. Project will be constructed under a single prime contract.

#### 1.4 ACCESS TO SITE

- A. General: Contractor shall have full use of Project site for construction operations during construction period. Contractor's use of Project site is limited only by Owner's right to perform work or to retain other contractors on portions of Project.
- B. Use of Site: Limit use of Project site to areas within the Contract limits indicated. Do not

1. Limits: Confine construction operations to areas indicated on the documents for building demolition and new construction..
- C. Condition of Existing Building: Maintain portions of existing building affected by construction operations in a weather tight condition throughout construction period. Repair damage caused by construction operations.

## 1.5 SPECIFICATION FORMATS AND CONVENTIONS

- A. Specification Format: The Specifications are organized into Divisions and Sections using the 50-division format and CSI/CSC's "MasterFormat" numbering system.
  1. Section Identification: The Specifications use Section numbers and titles to help cross-referencing in the Contract Documents. Sections in the Project Manual are in numeric sequence; however, the sequence is incomplete because all available Section numbers are not used. Consult the Table of Contents at the beginning of the Project Manual to determine numbers and names of Sections in the Contract Documents.
  2. Division 01: Sections in Division 01 govern the execution of the Work of all Sections in the Specifications.
- B. Specification Content: The Specifications use certain conventions for the style of language and the intended meaning of certain terms, words, and phrases when used in particular situations. These conventions are as follows:
  1. Abbreviated Language: Language used in the Specifications and other Contract Documents is abbreviated. Words and meanings shall be interpreted as appropriate. Words implied, but not stated, shall be inferred as the sense requires. Singular words shall be interpreted as plural and plural words shall be interpreted as singular where applicable as the context of the Contract Documents indicates.
  2. Imperative mood and streamlined language are generally used in the Specifications. Requirements expressed in the imperative mood are to be performed by Contractor. Occasionally, the indicative or subjunctive mood may be used in the Section Text for clarity to describe responsibilities that must be fulfilled indirectly by Contractor or by others when so noted.
    - a. The words "shall," "shall be," or "shall comply with," depending on the context, are implied where a colon (:) is used within a sentence or phrase.

## 1.6 MISCELLANEOUS PROVISIONS

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 011000

## SECTION 012100 - ALLOWANCES

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. Section includes administrative and procedural requirements governing allowances.
  - 1. Certain items are specified in the Contract Documents by allowances. Allowances have been established in lieu of additional requirements and to defer selection of actual materials and equipment to a later date when direction will be provided to Contractor. If necessary, additional requirements will be issued by Change Order. Contractor shall include the allowance amounts outlined in Schedule of Allowances in their base bid amount.
- B. Types of allowances include the following:
  - 1. Contingency allowances.

#### 1.3 ACTION SUBMITTALS

- A. Submit proposals for purchase of products or systems included in allowances, in the form specified for Change Orders.

#### 1.4 INFORMATIONAL SUBMITTALS

- A. Submit invoices or delivery slips to show actual quantities of materials delivered to the site for use in fulfillment of each allowance.
- B. Submit time sheets and other documentation to show labor time and cost for installation of allowance items that include installation as part of the allowance.
- C. Coordinate and process submittals for allowance items in same manner as for other portions of the Work.

#### 1.5 CONTINGENCY ALLOWANCES

- A. Use the contingency allowance only as directed by Architect for Owner's purposes. Indicate amounts to be charged to the allowance on all Application for Payment forms.
- B. Change Orders authorizing use of funds from the contingency allowance will include Contractor's related costs and reasonable overhead and profit margins. These costs include delivery, installation, taxes (if applicable to Project), equipment rental, and similar costs. Do not include additional costs for insurance and bonds as these items were included in the original bid.

- C. At Project closeout, credit unused amounts remaining in the contingency allowance to Owner by Change Order.

## 1.6 ADJUSTMENT OF ALLOWANCES

- A. Allowance Adjustment: To adjust allowance amounts, prepare a Change Order proposal based on the difference between purchase amount and the allowance, multiplied by final measurement of work-in-place where applicable. If applicable, include reasonable allowances for cutting losses, tolerances, mixing wastes, normal product imperfections, and similar margins.
  - 1. Include installation costs in purchase amount only where indicated as part of the allowance.
  - 2. If requested, prepare explanation and documentation to substantiate distribution of overhead costs and other margins claimed.
- B. Submit claims for increased costs because of a change in scope or nature of the allowance described in the Contract Documents, whether for the purchase order amount or Contractor's handling, labor, installation, overhead, and profit.
  - 1. Do not include Contractor's or subcontractor's indirect expense in the Change Order cost amount unless it is clearly shown that the nature or extent of work has changed from what could have been foreseen from information in the Contract Documents.
  - 2. No change to Contractor's indirect expense is permitted for selection of higher- or lower-priced materials or systems of the same scope and nature as originally indicated.

## PART 2 - PRODUCTS (Not Used)

## PART 3 - EXECUTION

### 3.1 SCHEDULE OF ALLOWANCES

- A. Allowance No. 1: Include a contingency allowance of \$25,000.00 for Construction Contingency.

END OF SECTION 012100

## SECTION 012500 - SUBSTITUTION PROCEDURES

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. Section includes administrative and procedural requirements for substitutions.
- B. Related Requirements:
  - 1. Division 01 Section "Product Requirements" for requirements for submitting comparable product submittals for products by listed manufacturers.
  - 2. Divisions 02 through 33 Sections for specific requirements and limitations for substitutions.

#### 1.3 DEFINITIONS

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

#### 1.4 ACTION SUBMITTALS

- A. Substitution Requests: Submit three copies of each request for consideration. Identify product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles.
  - 1. Substitution Request Form: Use attached substitution request form at the end of this section..
  - 2. Documentation: Show compliance with requirements for substitutions and the following, as applicable:
    - a. Statement indicating why specified product or fabrication or installation cannot be provided, if applicable.

- b. Coordination information, including a list of changes or revisions needed to other parts of the Work and to construction performed by Owner and separate contractors, which will be necessary to accommodate proposed substitution.
  - c. Detailed comparison of significant qualities of proposed substitution with those of the Work specified. Include annotated copy of applicable Specification Section. Significant qualities may include attributes such as performance, weight, size, durability, visual effect, sustainable design characteristics, warranties, and specific features and requirements indicated. Indicate deviations, if any, from the Work specified.
  - d. Product Data, including drawings and descriptions of products and fabrication and installation procedures.
  - e. Samples, where applicable or requested.
  - f. Certificates and qualification data, where applicable or requested.
  - g. List of similar installations for completed projects with project names and addresses and names and addresses of architects and owners.
  - h. Material test reports from a qualified testing agency indicating and interpreting test results for compliance with requirements indicated.
  - i. Research reports evidencing compliance with building code in effect for the Project.
  - j. Detailed comparison of Contractor's construction schedule using proposed substitution with products specified for the Work, including effect on the overall Contract Time. If specified product or method of construction cannot be provided within the Contract Time, include letter from manufacturer, on manufacturer's letterhead, stating date of receipt of purchase order, lack of availability, or delays in delivery.
  - k. Cost information, including a proposal of change, if any, in the Contract Sum.
  - l. Contractor's certification that proposed substitution complies with requirements in the Contract Documents except as indicated in substitution request, is compatible with related materials, and is appropriate for applications indicated.
  - m. Contractor's waiver of rights to additional payment or time that may subsequently become necessary because of failure of proposed substitution to produce indicated results.
3. Architect's Action: If necessary, Architect will request additional information or documentation for evaluation within seven days of receipt of a request for substitution. Architect will notify Contractor through Construction Manager of acceptance or rejection of proposed substitution within fifteen days of receipt of request, or seven days of receipt of additional information or documentation, whichever is later.
- a. Forms of Acceptance: Change Order, Construction Change Directive, or Architect's Supplemental Instructions for minor changes in the Work.
  - b. Use product specified if Architect does not issue a decision on use of a proposed substitution within time allocated.

## 1.5 QUALITY ASSURANCE

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

## 1.6 PROCEDURES

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

## PART 2 - PRODUCTS

### 2.1 SUBSTITUTIONS

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

- c. Requested substitution is consistent with the Contract Documents and will produce indicated results.
- d. Substitution request is fully documented and properly submitted.
- e. Requested substitution will not adversely affect Contractor's construction schedule.
- f. Requested substitution has received necessary approvals of authorities having jurisdiction.
- g. Requested substitution is compatible with other portions of the Work.
- h. Requested substitution has been coordinated with other portions of the Work.
- i. Requested substitution provides specified warranty.
- j. If requested substitution involves more than one contractor, requested substitution has been coordinated with other portions of the Work, is uniform and consistent, is compatible with other products, and is acceptable to all contractors involved.

PART 3 - EXECUTION (Not Used)

END OF SECTION 012500

**SUBSTITUTION REQUEST – FORM  
(After the Bidding Phase)**

=====  
Project: Clinton County Courthouse Roofing Replacement Substitution Request Number: \_\_\_\_\_

To: \_\_\_\_\_ From: \_\_\_\_\_ Date: \_\_\_\_\_

Re: \_\_\_\_\_ A/E Project Number: \_\_\_\_\_ Contract For: \_\_\_\_\_

=====  
Specification Title: \_\_\_\_\_

Description: \_\_\_\_\_

Section: \_\_\_\_\_ Page: \_\_\_\_\_ Article/Paragraph: \_\_\_\_\_

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

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

Phone: \_\_\_\_\_ Trade Name: \_\_\_\_\_ Model No.: \_\_\_\_\_

Installer: \_\_\_\_\_ Address: \_\_\_\_\_ Phone: \_\_\_\_\_

History:  New Product  2–5 years old  5-10 years old  More than 10 years old

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

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

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

Similar Installation:

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

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

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

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

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

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

The Undersigned certifies:

- Proposed substitution has been fully investigated and determined to be equal or superior in all respects to specified product.
- Same warranty will be furnished for proposed substitution as for specified product.
- Same maintenance service and source of replacement parts, as applicable, is available.
- Proposed substitution will have no adverse effect on other trades and will not affect or delay progress schedule.
- Cost data as stated above is complete. Claims for additional costs related to accepted substitution which may subsequently become apparent are to be waived.
- Proposed substitution does not affect dimensions and functional clearances.
- Payment will be made for changes to building design, including A/E design, detailing, and construction costs by the substitution.
- Coordination, installation, and changes in the Work as necessary for accepted substitution will be complete in all respects.

---

Submitted by: \_\_\_\_\_

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

Firm: \_\_\_\_\_

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

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

Attachments: \_\_\_\_\_

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#### A/E's REVIEW AND ACTION

- Substitution approved - Make submittals in accordance with Specification Section 013300.
- Substitution approved as noted - Make submittals in accordance with Specification Section 013300.
- Substitution rejected - Use specified materials.
- Substitution Request received too late - Use specified materials.

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

Additional Comments:  Contractor  Subcontractor  Supplier  Manufacturer  A/E  \_\_\_\_\_

---

END OF FORM

## SECTION 012600 - CONTRACT MODIFICATION PROCEDURES

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. Section Includes:

- 1. Administrative and procedural requirements for Contract modifications.

- B. Related Requirements:

- 1. Section 012500 "Substitution Procedures" for administrative procedures for handling requests for substitutions made after the Contract award.

#### 1.3 MINOR CHANGES IN THE WORK

- A. Architect will issue supplemental instructions authorizing minor changes in the Work, not involving adjustment to the Contract Sum or the Contract Time, via Clarifications.(ASI)."

#### 1.4 PROPOSAL REQUESTS

- A. Owner-Initiated Proposal Requests: Architect will issue a detailed description of proposed changes in the Work that may require adjustment to the Contract Sum or the Contract Time. If necessary, the description will include supplemental or revised Drawings and Specifications.

- 1. Work Change Proposal Requests issued by the Architect are not instructions either to stop work in progress or to execute the proposed change.
  - 2. Within 20 days after receipt of Proposal Request, submit a quotation estimating cost adjustments to the Contract Sum and the Contract Time necessary to execute the change.
    - a. Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities.
    - b. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
    - c. Include costs of labor and supervision directly attributable to the change.
    - d. Indicate additional time to be added to completion date, if any.

- B. Contractor-Initiated Proposals: If latent or changed conditions require modifications to the Contract, Contractor may initiate a claim by submitting a request for a change to the Architect.

1. Include a statement outlining reasons for the change and the effect of the change on the Work. Provide a complete description of the proposed change. Indicate the effect of the proposed change on the Contract Sum and the Contract Time.
2. Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities.
3. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
4. Include costs of labor and supervision directly attributable to the change.
  - a. Maximum combined allowance for overhead, profit, bonds and insurance, and markup, included in the total cost to the Owner, shall be based on the following:
    - 1) Contractor: For Work performed by Contractor's own forces, 15 percent of the cost.
    - 2) Contractor: For Work performed by Subcontractor, 7.5 percent of the amount due the Subcontractor.
    - 3) For each Subcontractor or Sub-subcontractor involved: For Work performed by that Subcontractor or Sub-subcontractor's own forces, 15 percent of the cost.
    - 4) For each Subcontractor: For Work performed by his Sub-subcontractors, 7.5 percent of the amount due the Sub-subcontractor.
    - 5) To expedite verification of quotations for extras or credits, include a complete cost breakdown, with itemized labor, materials, and subcontract costs, except for proposals less than \$200.00 or for those that are so minor in scope that their propriety can be validated by inspection.
5. Indicate additional time to be added to completion date, if any.
6. Comply with requirements in Section 012500 "Substitution Procedures" if the proposed change requires substitution of one product or system for product or system specified.
7. Proposal Request Form: Use form acceptable to Architect.

#### 1.5 CHANGE ORDER PROCEDURES

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

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 012600

## SECTION 012900 - PAYMENT PROCEDURES

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. Section includes administrative and procedural requirements necessary to prepare and process Applications for Payment.
- B. Related Requirements:
  - 1. Division 01 Section "Contract Modification Procedures" for administrative procedures for handling changes to the Contract.
  - 2. Division 01 Section "Construction Progress Documentation" for administrative requirements governing the preparation and submittal of the Contractor's construction schedule.

#### 1.3 DEFINITIONS

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

#### 1.4 SCHEDULE OF VALUES

- A. Coordination: Coordinate preparation of the schedule of values with preparation of Contractor's construction schedule.
  - 1. Coordinate line items in the schedule of values with other required administrative forms and schedules, including the following:
    - a. Application for Payment forms with continuation sheets.
    - b. Submittal schedule.
    - c. Items required to be indicated as separate activities in Contractor's construction schedule.
  - 2. Submit the schedule of values to Architect at earliest possible date, but no later than seven days before the date scheduled for submittal of initial Applications for Payment.
- B. Format and Content: Use Project Manual table of contents as a guide to establish line items for the schedule of values. Provide at least one line item for each Specification Section.

1. Identification: Include the following Project identification on the schedule of values:
  - a. Project name and location.
  - b. Name of Architect.
  - c. Architect's project number.
  - d. Contractor's name and address.
  - e. Date of submittal.
2. Arrange schedule of values consistent with format of AIA Document G703.
3. Arrange the schedule of values in tabular form with separate columns to indicate the following for each item listed:
  - a. Related Specification Section or Division.
  - b. Description of the Work.
  - c. Name of subcontractor.
  - d. Name of manufacturer or fabricator.
  - e. Name of supplier.
  - f. Change Orders (numbers) that affect value.
  - g. Dollar value of the following, as a percentage of the Contract Sum to nearest one-hundredth percent, adjusted to total 100 percent.
    - 1) Labor.
    - 2) Materials.
    - 3) Equipment.
4. Provide a breakdown of the Contract Sum in enough detail to facilitate continued evaluation of Applications for Payment and progress reports. Coordinate with Project Manual table of contents.
5. Round amounts to nearest whole dollar; total shall equal the Contract Sum.
6. Provide a separate line item in the schedule of values for each part of the Work where Applications for Payment may include materials or equipment purchased or fabricated and stored, but not yet installed.
  - a. Differentiate between items stored on-site and items stored off-site. If required, include evidence of insurance.
7. Provide separate line items in the schedule of values for initial cost of materials, for each subsequent stage of completion, and for total installed value of that part of the Work.
8. Each item in the schedule of values and Applications for Payment shall be complete. Include total cost and proportionate share of general overhead and profit for each item.
  - a. Temporary facilities and other major cost items that are not direct cost of actual work-in-place may be shown either as separate line items in the schedule of values or distributed as general overhead expense, at Contractor's option.
9. Schedule Updating: Update and resubmit the schedule of values before the next Applications for Payment when Change Orders or Construction Change Directives result in a change in the Contract Sum.

## 1.5 APPLICATIONS FOR PAYMENT

- A. Each Application for Payment following the initial Application for Payment shall be consistent with previous applications and payments as certified by Architect and paid for by Owner.
  - 1. Initial Application for Payment, Application for Payment at time of Substantial Completion, and final Application for Payment involve additional requirements.
- B. Payment Application Times: The date for each progress payment is indicated in the Agreement between Owner and Contractor. The period of construction work covered by each Application for Payment is the period indicated in the Agreement.
- C. Payment Application Times: Submit Application for Payment to Architect by the 1st of the month. The period covered by each Application for Payment is one month, ending on the last day of the month.
- D. Application for Payment Forms: Use AIA Document G702 and AIA Document G703 as form for Applications for Payment.
- E. Application Preparation: Complete every entry on form. Notarize and execute by a person authorized to sign legal documents on behalf of Contractor. Architect will return incomplete applications without action.
  - 1. Entries shall match data on the schedule of values and Contractor's construction schedule. Use updated schedules if revisions were made.
  - 2. Include amounts for work completed following previous Application for Payment, whether or not payment has been received. Include only amounts for work completed at time of Application for Payment.
  - 3. Include amounts of Change Orders and Construction Change Directives issued before last day of construction period covered by application.
- F. Stored Materials: Include in Application for Payment amounts applied for materials or equipment purchased or fabricated and stored, but not yet installed. Differentiate between items stored on-site and items stored off-site.
  - 1. Provide certificate of insurance, evidence of transfer of title to Owner, and consent of surety to payment, for stored materials.
  - 2. Provide supporting documentation that verifies amount requested, such as paid invoices. Match amount requested with amounts indicated on documentation; do not include overhead and profit on stored materials.
  - 3. Provide summary documentation for stored materials indicating the following:
    - a. Value of materials previously stored and remaining stored as of date of previous Applications for Payment.
    - b. Value of previously stored materials put in place after date of previous Application for Payment and on or before date of current Application for Payment.
    - c. Value of materials stored since date of previous Application for Payment and remaining stored as of date of current Application for Payment.

- G. Transmittal: Submit three signed and notarized original copies of each Application for Payment to Architect by a method ensuring receipt within 24 hours. One copy shall include waivers of lien and similar attachments if required.
1. Transmit each copy with a transmittal form listing attachments and recording appropriate information about application.
- H. Waivers of Mechanic's Lien: Do not apply to public projects. Refer to Master Builders of Iowa "Public Projects and Lien Waivers" and Iowa Code, Chapter 573.
- I. Initial Application for Payment: Administrative actions and submittals that must precede or coincide with submittal of first Application for Payment include the following:
1. List of subcontractors.
  2. Schedule of values.
  3. Contractor's construction schedule (preliminary if not final).
  4. Products list (preliminary if not final).
  5. Submittal schedule (preliminary if not final).
  6. Copies of building permits.
  7. Initial progress report.
- J. Application for Payment at Substantial Completion: After Architect issues the Certificate of Substantial Completion, submit an Application for Payment showing 100 percent completion for portion of the Work claimed as substantially complete.
1. Include documentation supporting claim that the Work is substantially complete and a statement showing an accounting of changes to the Contract Sum.
  2. This application shall reflect Certificate(s) of Substantial Completion issued previously for Owner occupancy of designated portions of the Work.
- K. Final Payment Application: After completing Project closeout requirements, submit final Application for Payment with releases and supporting documentation not previously submitted and accepted, including, but not limited, to the following:
1. Evidence of completion of Project closeout requirements.
  2. Insurance certificates for products and completed operations where required and proof that taxes, fees, and similar obligations were paid.
  3. Updated final statement, accounting for final changes to the Contract Sum.
  4. AIA Document G706, "Contractor's Affidavit of Payment of Debts and Claims."
  5. AIA Document G707, "Consent of Surety to Final Payment."
  6. Evidence that claims have been settled.
  7. Final liquidated damages settlement statement.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 012900

## SECTION 013100 - PROJECT MANAGEMENT AND COORDINATION

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. Section includes administrative provisions for coordinating construction operations on Project including, but not limited to, the following:
  - 1. General coordination procedures.
  - 2. Coordination drawings.
  - 3. Requests for Information (RFIs).
  - 4. Project meetings.
- B. Each contractor shall participate in coordination requirements. Certain areas of responsibility are assigned to a specific contractor.
- C. Related Requirements:
  - 1. Division 01 Section "Construction Progress Documentation" for preparing and submitting Contractor's construction schedule.
  - 2. Division 01 Section "Execution" for procedures for coordinating general installation and field-engineering services, including establishment of benchmarks and control points.
  - 3. Division 01 Section "Closeout Procedures" for coordinating closeout of the Contract.

#### 1.3 DEFINITIONS

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

#### 1.4 GENERAL COORDINATION PROCEDURES

- A. Coordination: Coordinate construction operations included in different Sections of the Specifications to ensure efficient and orderly installation of each part of the Work. Coordinate construction operations, included in different Sections that depend on each other for proper installation, connection, and operation.
  - 1. Schedule construction operations in sequence required to obtain the best results where installation of one part of the Work depends on installation of other components, before or after its own installation.
  - 2. Coordinate installation of different components to ensure maximum performance and accessibility for required maintenance, service, and repair.

3. Make adequate provisions to accommodate items scheduled for later installation.
- B. Prepare memoranda for distribution to each party involved, outlining special procedures required for coordination. Include such items as required notices, reports, and list of attendees at meetings.
1. Prepare similar memoranda for Owner and separate contractors if coordination of their Work is required.
- C. Administrative Procedures: Coordinate scheduling and timing of required administrative procedures with other construction activities to avoid conflicts and to ensure orderly progress of the Work. Such administrative activities include, but are not limited to, the following:
1. Preparation of Contractor's construction schedule.
  2. Preparation of the schedule of values.
  3. Installation and removal of temporary facilities and controls.
  4. Delivery and processing of submittals.
  5. Progress meetings.
  6. Pre-installation conferences.
  7. Project closeout activities.
  8. Startup and adjustment of systems.

#### 1.5 COORDINATION DRAWINGS

- A. Coordination Drawings, General: Prepare coordination drawings according to requirements in individual Sections, and additionally where installation is not completely shown on Shop Drawings, where limited space availability necessitates coordination, or if coordination is required to facilitate integration of products and materials fabricated or installed by more than one entity.
1. Content: Project-specific information, drawn accurately to a scale large enough to indicate and resolve conflicts. Do not base coordination drawings on standard printed data. Include the following information, as applicable:
    - a. Use applicable Drawings as a basis for preparation of coordination drawings. Prepare sections, elevations, and details as needed to describe relationship of various systems and components.
    - b. Coordinate the addition of trade-specific information to the coordination drawings by multiple contractors in a sequence that best provides for coordination of the information and resolution of conflicts between installed components before submitting for review.
    - c. Indicate functional and spatial relationships of components of architectural, structural, civil, mechanical, and electrical systems.
    - d. Indicate space requirements for routine maintenance and for anticipated replacement of components during the life of the installation.
    - e. Show location and size of access doors required for access to concealed dampers, valves, and other controls.
    - f. Indicate required installation sequences.

- g. Indicate dimensions shown on the Drawings. Specifically note dimensions that appear to be in conflict with submitted equipment and minimum clearance requirements. Provide alternate sketches to Architect indicating proposed resolution of such conflicts. Minor dimension changes and difficult installations will not be considered changes to the Contract.

B. Coordination Drawing Organization: Organize coordination drawings as follows:

1. Floor Plans and Reflected Ceiling Plans: Show architectural and structural elements, and mechanical, plumbing, fire-protection, fire-alarm, and electrical Work. Show locations of visible ceiling-mounted devices relative to acoustical ceiling grid. Supplement plan drawings with section drawings where required to adequately represent the Work.
2. Review: Architect will review coordination drawings to confirm that the Work is being coordinated, but not for the details of the coordination, which are Contractor's responsibility. If Architect determines that coordination drawings are not being prepared in sufficient scope or detail, or are otherwise deficient, Architect will so inform Contractor, who shall make changes as directed and resubmit.
3. Coordination Drawing Prints: Prepare coordination drawing prints according to requirements in Division 01 Section "Submittal Procedures."

1.6 REQUESTS FOR INFORMATION (RFIs)

A. General: Immediately on discovery of the need for additional information or interpretation of the Contract Documents, Contractor shall prepare and submit an RFI in the form included.

1. Architect will return RFIs submitted to Architect by other entities controlled by Contractor with no response.
2. Coordinate and submit RFIs in a prompt manner so as to avoid delays in Contractor's work or work of subcontractors.

B. Content of the RFI: Include a detailed, legible description of item needing information or interpretation and the following:

1. Project name.
2. Project number.
3. Date.
4. Name of Contractor.
5. Name of Architect.
6. RFI number, numbered sequentially.
7. RFI subject.
8. Specification Section number and title and related paragraphs, as appropriate.
9. Drawing number and detail references, as appropriate.
10. Field dimensions and conditions, as appropriate.
11. Contractor's suggested resolution. If Contractor's suggested resolution impacts the Contract Time or the Contract Sum, Contractor shall state impact in the RFI.
12. Contractor's signature.
13. Attachments: Include sketches, descriptions, measurements, photos, Product Data, Shop Drawings, coordination drawings, and other information necessary to fully describe items needing interpretation.

- a. Include dimensions, thicknesses, structural grid references, and details of affected materials, assemblies, and attachments on attached sketches.
- C. RFI Forms: Form included.
  1. Attachments shall be electronic files in Adobe Acrobat PDF format.
- D. Architect's Action: Architect will review each RFI, determine action required, and respond. Allow seven working days for Architect's response for each RFI. RFIs received by Architect after 1:00 p.m. will be considered as received the following working day.
  1. The following Contractor-generated RFIs will be returned without action:
    - a. Requests for approval of submittals.
    - b. Requests for approval of substitutions.
    - c. Requests for approval of Contractor's means and methods.
    - d. Requests for coordination information already indicated in the Contract Documents.
    - e. Requests for adjustments in the Contract Time or the Contract Sum.
    - f. Requests for interpretation of Architect's actions on submittals.
    - g. Incomplete RFIs or inaccurately prepared RFIs.
  2. Architect's action may include a request for additional information, in which case Architect's time for response will date from time of receipt of additional information.
  3. Architect's action on RFIs that may result in a change to the Contract Time or the Contract Sum may be eligible for Contractor to submit Change Proposal according to Division 01 Section "Contract Modification Procedures."
    - a. If Contractor believes the RFI response warrants change in the Contract Time or the Contract Sum, notify Architect in writing within ten days of receipt of the RFI response.
- E. RFI Log: Prepare, maintain, and submit a tabular log of RFIs organized by the RFI number. Submit log weekly. Use CSI Log Form 13.2B or Software log with not less than the following:
  1. Project name.
  2. Name and address of Contractor.
  3. Name and address of Architect.
  4. RFI number including RFIs that were returned without action or withdrawn.
  5. RFI description.
  6. Date the RFI was submitted.
  7. Date Architect's response was received.
- F. On receipt of Architect's action, update the RFI log and immediately distribute the RFI response to affected parties. Review response and notify Architect within seven days if Contractor disagrees with response.

## 1.7 PROJECT MEETINGS

- A. General: Schedule and conduct meetings and conferences at Project site unless otherwise indicated.
1. Attendees: Inform participants and others involved, and individuals whose presence is required, of date and time of each meeting. Notify Owner and Architect of scheduled meeting dates and times.
  2. Agenda: Prepare the meeting agenda. Distribute the agenda to all invited attendees.
  3. Minutes: Entity responsible for conducting meeting will record significant discussions and agreements achieved. Distribute the meeting minutes to everyone concerned, including Owner, Owner's Representative, and Architect, within seven days of the meeting.
- B. Preconstruction Conference: Schedule and conduct a preconstruction conference before starting construction, at a time convenient to Owner and Architect, but no later than 15 days after execution of the Agreement.
1. Conduct the conference to review responsibilities and personnel assignments.
  2. Attendees: Authorized representatives of Owner, Owner's Representative, Architect, and their consultants; Contractor and its superintendent; major subcontractors; suppliers; and other concerned parties shall attend the conference. Participants at the conference shall be familiar with Project and authorized to conclude matters relating to the Work.
  3. Agenda: Discuss items of significance that could affect progress, including the following:
    - a. Tentative construction schedule.
    - b. Phasing.
    - c. Critical work sequencing and long-lead items.
    - d. Designation of key personnel and their duties.
    - e. Lines of communications.
    - f. Procedures for processing field decisions and Change Orders.
    - g. Procedures for RFIs.
    - h. Procedures for testing and inspecting.
    - i. Procedures for processing Applications for Payment.
    - j. Distribution of the Contract Documents.
    - k. Submittal procedures.
    - l. Sustainable design requirements.
    - m. Preparation of record documents.
    - n. Use of the premises and existing building.
    - o. Work restrictions.
    - p. Working hours.
    - q. Owner's occupancy requirements.
    - r. Responsibility for temporary facilities and controls.
    - s. Procedures for moisture and mold control.
    - t. Procedures for disruptions and shutdowns.
    - u. Construction waste management and recycling.
    - v. Parking availability.
    - w. Office, work, and storage areas.
    - x. Equipment deliveries and priorities.
    - y. First aid.
    - z. Security.
    - aa. Progress cleaning.

4. Minutes: Architect will record and distribute meeting minutes to General Contractor for distribution.
- C. Preinstallation Conferences: Conduct a preinstallation conference at Project site before each construction activity that requires coordination with other construction.
1. Attendees: Installer and representatives of manufacturers and fabricators involved in or affected by the installation and its coordination or integration with other materials and installations that have preceded or will follow, shall attend the meeting. Advise Architect, and Owner's Representative of scheduled meeting dates.
  2. Agenda: Review progress of other construction activities and preparations for the particular activity under consideration, including requirements for the following:
    - a. Contract Documents.
    - b. Options.
    - c. Related RFIs.
    - d. Related Change Orders.
    - e. Purchases.
    - f. Deliveries.
    - g. Submittals.
    - h. Review of mockups.
    - i. Possible conflicts.
    - j. Compatibility requirements.
    - k. Time schedules.
    - l. Weather limitations.
    - m. Manufacturer's written instructions.
    - n. Warranty requirements.
    - o. Compatibility of materials.
    - p. Acceptability of substrates.
    - q. Temporary facilities and controls.
    - r. Space and access limitations.
    - s. Regulations of authorities having jurisdiction.
    - t. Testing and inspecting requirements.
    - u. Installation procedures.
    - v. Coordination with other work.
    - w. Required performance results.
    - x. Protection of adjacent work.
    - y. Protection of construction and personnel.
  3. Record significant conference discussions, agreements, and disagreements, including required corrective measures and actions.
  4. Reporting: Distribute minutes of the meeting to each party present and to other parties requiring information.
  5. Do not proceed with installation if the conference cannot be successfully concluded. Initiate whatever actions are necessary to resolve impediments to performance of the Work and reconvene the conference at earliest feasible date.
- D. Owner Progress Meetings: Conduct Owner progress meetings at biweekly intervals.
1. Coordinate dates of meetings with preparation of payment requests.

2. Attendees: Contractor, Owner, Owner's Representative, and Architect. each subcontractor, supplier, and other entity concerned with current progress or involved in planning, coordination, or performance of future activities shall be represented at these meetings. All participants at the meeting shall be familiar with Project and authorized to conclude matters relating to the Work.
3. Agenda: Review and correct or approve minutes of previous progress meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to status of Project.
  - a. Contractor's Construction Schedule: Review progress since the last meeting. Determine whether each activity is on time, ahead of schedule, or behind schedule, in relation to Contractor's construction schedule. Determine how construction behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed within the Contract Time.
    - 1) Review schedule for next period.
  - b. Review present and future needs of each entity present, including the following:
    - 1) Interface requirements.
    - 2) Sequence of operations.
    - 3) Status of submittals.
    - 4) Deliveries.
    - 5) Off-site fabrication.
    - 6) Access.
    - 7) Site utilization.
    - 8) Temporary facilities and controls.
    - 9) Progress cleaning.
    - 10) Quality and work standards.
    - 11) Status of correction of deficient items.
    - 12) Field observations.
    - 13) Status of RFIs.
    - 14) Status of proposal requests.
    - 15) Pending changes.
    - 16) Status of Change Orders.
    - 17) Pending claims and disputes.
    - 18) Documentation of information for payment requests.
4. Minutes: General Contractor will record and distribute the meeting minutes to each party present and to parties requiring information.
  - a. Schedule Updating: Revise Contractor's construction schedule after each progress meeting where revisions to the schedule have been made or recognized. Issue revised schedule concurrently with the report of each meeting.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 013100



## SECTION 013300 - SUBMITTAL PROCEDURES

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. Section includes requirements for the submittal schedule and administrative and procedural requirements for submitting Shop Drawings, Product Data, Samples, and other submittals.
- B. Related Requirements:
  - 1. Division 01 Section "Payment Procedures" for submitting Applications for Payment and the schedule of values.
  - 2. Division 01 Section "Construction Progress Documentation" for submitting schedules and reports, including Contractor's construction schedule.
  - 3. Division 01 Section "Operation and Maintenance Data" for submitting operation and maintenance manuals.
  - 4. Division 01 Section "Project Record Documents" for submitting record Drawings, record Specifications, and record Product Data.

#### 1.3 DEFINITIONS

- A. Action Submittals: Written and graphic information and physical samples that require Architect's responsive action. Action submittals are those submittals indicated in individual Specification Sections as "action submittals."
- B. Informational Submittals: Written and graphic information and physical samples that do not require Architect's responsive action. Submittals may be rejected for not complying with requirements. Informational submittals are those submittals indicated in individual Specification Sections as "informational submittals."
- C. Portable Document Format (PDF): An open standard file format licensed by Adobe Systems used for representing documents in a device-independent and display resolution-independent fixed-layout document format.

#### 1.4 ACTION SUBMITTALS

- A. Submittal Schedule: Submit a schedule of submittals, arranged in chronological order by dates required by construction schedule. Include time required for review, ordering, manufacturing, fabrication, and delivery when establishing dates. Include additional time required for making

corrections or revisions to submittals noted by Architect and additional time for handling and reviewing submittals required by those corrections.

1. Coordinate submittal schedule with list of subcontracts, the schedule of values, and Contractor's construction schedule.
2. Initial Submittal: Submit concurrently with startup construction schedule. Include submittals required during the first 60 days of construction. List those submittals required to maintain orderly progress of the Work and those required early because of long lead time for manufacture or fabrication.
3. Final Submittal: Submit concurrently with the first complete submittal of Contractor's construction schedule.
  - a. Submit revised submittal schedule to reflect changes in current status and timing for submittals.
4. Format: Arrange the following information in a tabular format:
  - a. Scheduled date for first submittal.
  - b. Specification Section number and title.
  - c. Submittal category: Action; informational.
  - d. Name of subcontractor.
  - e. Description of the Work covered.
  - f. Scheduled date for Architect's final release or approval.
  - g. Scheduled date of fabrication.
  - h. Scheduled dates for purchasing.
  - i. Scheduled dates for installation.
  - j. Activity or event number.

#### 1.5 SUBMITTAL ADMINISTRATIVE REQUIREMENTS

- A. General: At Contractor's written request, copies of Architect's CAD files will be provided to Contractor for Contractor's use in connection with Project, subject to the following conditions:
  1. Electronic Files: Electronic copies of CAD Drawings of the Contract Drawings will be provided by Architect for Contractor's use in preparing submittals. The delivery and preparation of documents on electronic media will be an Additional Service paid for by the Contractor. The cost of this Additional Service will be computed in a manner that compensates IIW, P.C. for the cost of preparing the document in the format requested by the outside party and delivering it to the party. The files on the disk will be provided "as is" without warranty of any kind, either expressed or implied. IIW, P.C. does not warrant, guarantee, or make any representations regarding the use, or the results of the use of the files in terms of correctness, accuracy, reliability, or otherwise. The requesting contractor shall also complete the Electronic Media Transfer Agreement as prepared by IIW, P.C. upon request from contractor.
- B. Coordination: Coordinate preparation and processing of submittals with performance of construction activities.
  1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.

2. Submit all submittal items required for each Specification Section concurrently unless partial submittals for portions of the Work are indicated on approved submittal schedule.
  3. Submit action submittals and informational submittals required by the same Specification Section as separate packages under separate transmittals.
  4. Coordinate transmittal of different types of submittals for related parts of the Work so processing will not be delayed because of need to review submittals concurrently for coordination.
    - a. Architect reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.
- C. Processing Time: Allow time for submittal review, including time for resubmittals, as follows. Time for review shall commence on Architect's receipt of submittal. No extension of the Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing, including resubmittals.
1. Initial Review: Allow 10 business days for initial review of each submittal. Allow additional time if coordination with subsequent submittals is required. Architect will advise Contractor when a submittal being processed must be delayed for coordination.
  2. Intermediate Review: If intermediate submittal is necessary, process it in same manner as initial submittal.
  3. Resubmittal Review: Allow 10 business days for review of each resubmittal.
- D. Paper Submittals: Place a permanent label or title block on each submittal item for identification.
1. Indicate name of firm or entity that prepared each submittal on label or title block.
  2. Provide a space approximately 6 by 8 inches on label or beside title block to record Contractor's review and approval markings and action taken by Architect.
  3. Include the following information for processing and recording action taken:
    - a. Project name.
    - b. Date.
    - c. Name of Architect.
    - d. Name of Construction Manager.
    - e. Name of Contractor.
    - f. Name of subcontractor.
    - g. Name of supplier.
    - h. Name of manufacturer.
    - i. Submittal number or other unique identifier, including revision identifier.
      - 1) Submittal number shall use Specification Section number followed by a decimal point and then a sequential number (e.g., 061000.01). Resubmittals shall include an alphabetic suffix after another decimal point (e.g., 061000.01.A).
    - j. Number and title of appropriate Specification Section.
    - k. Drawing number and detail references, as appropriate.
    - l. Location(s) where product is to be installed, as appropriate.
    - m. Other necessary identification.

4. Transmittal for Paper Submittals: Assemble each submittal individually and appropriately for transmittal and handling. Transmit each submittal using a transmittal form provided. Architect will return without review or discard submittals received from sources other than Contractor.
  - a. Transmittal Form for Paper Submittals: Use attached form.
- E. Electronic Submittals: Identify and incorporate information in each electronic submittal file as follows:
  1. Assemble complete submittal package into a single indexed file incorporating submittal requirements of a single Specification Section and transmittal form with links enabling navigation to each item.
  2. Name file with submittal number or other unique identifier, including revision identifier.
    - a. File name shall use project identifier and Specification Section number followed by a decimal point and then a sequential number (e.g., LNHS-061000.01). Resubmittals shall include an alphabetic suffix after another decimal point (e.g., LNHS-061000.01.A).
  3. Provide means for insertion to permanently record Contractor's review and approval markings and action taken by Architect.
  4. Transmittal Form for Electronic Submittals: Use software-generated form from electronic project management software acceptable to Owner, containing the following information:
    - a. Project name.
    - b. Date.
    - c. Name and address of Architect.
    - d. Name of Construction Manager.
    - e. Name of Contractor.
    - f. Name of firm or entity that prepared submittal.
    - g. Names of subcontractor, manufacturer, and supplier.
    - h. Category and type of submittal.
    - i. Submittal purpose and description.
    - j. Specification Section number and title.
    - k. Specification paragraph number or drawing designation and generic name for each of multiple items.
    - l. Drawing number and detail references, as appropriate.
    - m. Location(s) where product is to be installed, as appropriate.
    - n. Related physical samples submitted directly.
    - o. Indication of full or partial submittal.
    - p. Transmittal number, numbered consecutively.
    - q. Submittal and transmittal distribution record.
    - r. Other necessary identification.
    - s. Remarks.
- F. Options: Identify options requiring selection by Architect.
- G. Deviations and Additional Information: On an attached separate sheet, prepared on Contractor's letterhead, record relevant information, requests for data, revisions other than those requested

by Architect on previous submittals, and deviations from requirements in the Contract Documents, including minor variations and limitations. Include same identification information as related submittal.

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

## PART 2 - PRODUCTS

### 2.1 SUBMITTAL PROCEDURES

- A. General Submittal Procedure Requirements: Prepare and submit submittals required by individual Specification Sections. Types of submittals are indicated in individual Specification Sections.
  - 1. Submit electronic submittals via email as PDF electronic files.
    - a. Architect will return annotated file. Annotate and retain one copy of file as an electronic Project record document file.
  - 2. Action Submittals: Submit six paper copies of each submittal unless otherwise indicated. Architect will retain one copy and return all others.
  - 3. Informational Submittals: Submit six paper copies of each submittal unless otherwise indicated. Architect will retain one copy and return all others.
  - 4. Certificates and Certifications Submittals: Provide a statement that includes signature of entity responsible for preparing certification. Certificates and certifications shall be signed by an officer or other individual authorized to sign documents on behalf of that entity.
- B. Product Data: Collect information into a single submittal for each element of construction and type of product or equipment.
  - 1. If information must be specially prepared for submittal because standard published data are not suitable for use, submit as Shop Drawings, not as Product Data.
  - 2. Mark each copy of each submittal to show which products and options are applicable.
  - 3. Include the following information, as applicable:

- a. Manufacturer's catalog cuts.
  - b. Manufacturer's product specifications.
  - c. Standard color charts.
  - d. Statement of compliance with specified referenced standards.
  - e. Testing by recognized testing agency.
  - f. Application of testing agency labels and seals.
  - g. Notation of coordination requirements.
  - h. Availability and delivery time information.
4. For equipment, include the following in addition to the above, as applicable:
    - a. Wiring diagrams showing factory-installed wiring.
    - b. Printed performance curves.
    - c. Operational range diagrams.
    - d. Clearances required to other construction, if not indicated on accompanying Shop Drawings.
  5. Submit Product Data before or concurrent with Samples.
  6. Submit Product Data in the following format:
    - a. PDF electronic file.
    - b. Six paper copies of Product Data unless otherwise indicated. Architect will retain one copy and return all others.
- C. Shop Drawings: Prepare Project-specific information, drawn accurately to scale. Do not base Shop Drawings on reproductions of the Contract Documents or standard printed data.
1. Preparation: Fully illustrate requirements in the Contract Documents. Include the following information, as applicable:
    - a. Identification of products.
    - b. Schedules.
    - c. Compliance with specified standards.
    - d. Notation of coordination requirements.
    - e. Notation of dimensions established by field measurement.
    - f. Relationship and attachment to adjoining construction clearly indicated.
    - g. Seal and signature of professional engineer if specified.
  2. Sheet Size: Except for templates, patterns, and similar full-size drawings, submit Shop Drawings on sheets at least 8-1/2 by 11 inches, but no larger than 24 by 36 inches.
  3. Submit Shop Drawings in the following format:
    - a. PDF electronic file.
    - b. Six opaque (bond) copies of each submittal. Architect will retain one copy and return all others.
    - c. Six opaque copies of each submittal. Architect will retain one copy and return all others.
- D. Samples: Submit Samples for review of kind, color, pattern, and texture for a check of these characteristics with other elements and for a comparison of these characteristics between submittal and actual component as delivered and installed.

1. Transmit Samples that contain multiple, related components such as accessories together in one submittal package.
  2. Identification: Attach label on unexposed side of Samples that includes the following:
    - a. Generic description of Sample.
    - b. Product name and name of manufacturer.
    - c. Sample source.
    - d. Number and title of applicable Specification Section.
    - e. Specification paragraph number and generic name of each item.
  3. Samples for Initial Selection: Submit manufacturer's color charts consisting of units or sections of units showing the full range of colors, textures, and patterns available.
    - a. Number of Samples: Submit one full set(s) of available choices where color, pattern, texture, or similar characteristics are required to be selected from manufacturer's product line. Architect will return submittal with options selected.
- E. Coordination Drawing Submittals: Comply with requirements specified in Division 01 Section "Project Management and Coordination."
- F. Contractor's Construction Schedule: Comply with requirements specified in Division 01 Section "Construction Progress Documentation."
- G. Application for Payment and Schedule of Values: Comply with requirements specified in Division 01 Section "Payment Procedures."
- H. Test and Inspection Reports and Schedule of Tests and Inspections Submittals: Comply with requirements specified in Division 01 Section "Quality Requirements."
- I. Closeout Submittals and Maintenance Material Submittals: Comply with requirements specified in Division 01 Section "Closeout Procedures."
- J. Maintenance Data: Comply with requirements specified in Division 01 Section "Operation and Maintenance Data."
- K. Qualification Data: Prepare written information that demonstrates capabilities and experience of firm or person. Include lists of completed projects with project names and addresses, contact information of architects and owners, and other information specified.
- L. Installer Certificates: Submit written statements on manufacturer's letterhead certifying that Installer complies with requirements in the Contract Documents and, where required, is authorized by manufacturer for this specific Project.
- M. Manufacturer Certificates: Submit written statements on manufacturer's letterhead certifying that manufacturer complies with requirements in the Contract Documents. Include evidence of manufacturing experience where required.
- N. Product Certificates: Submit written statements on manufacturer's letterhead certifying that product complies with requirements in the Contract Documents.

- O. Material Certificates: Submit written statements on manufacturer's letterhead certifying that material complies with requirements in the Contract Documents.
- P. Material Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting test results of material for compliance with requirements in the Contract Documents.
- Q. Product Test Reports: Submit written reports indicating that current product produced by manufacturer complies with requirements in the Contract Documents. Base reports on evaluation of tests performed by manufacturer and witnessed by a qualified testing agency, or on comprehensive tests performed by a qualified testing agency.
- R. Research Reports: Submit written evidence, from a model code organization acceptable to authorities having jurisdiction, that product complies with building code in effect for Project. Include the following information:
  - 1. Name of evaluation organization.
  - 2. Date of evaluation.
  - 3. Time period when report is in effect.
  - 4. Product and manufacturers' names.
  - 5. Description of product.
  - 6. Test procedures and results.
  - 7. Limitations of use.
- S. Preconstruction Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of tests performed before installation of product, for compliance with performance requirements in the Contract Documents.
- T. Compatibility Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of compatibility tests performed before installation of product. Include written recommendations for primers and substrate preparation needed for adhesion.
- U. Field Test Reports: Submit written reports indicating and interpreting results of field tests performed either during installation of product or after product is installed in its final location, for compliance with requirements in the Contract Documents.
- V. Design Data: Prepare and submit written and graphic information, including, but not limited to, performance and design criteria, list of applicable codes and regulations, and calculations. Include list of assumptions and other performance and design criteria and a summary of loads. Include load diagrams if applicable. Provide name and version of software, if any, used for calculations. Include page numbers.

## PART 3 - EXECUTION

### 3.1 CONTRACTOR'S REVIEW

- A. Action and Informational Submittals: Review each submittal and check for coordination with other Work of the Contract and for compliance with the Contract Documents. Note corrections and field dimensions. Mark with approval stamp before submitting to Architect.
- B. Project Closeout and Maintenance Material Submittals: See requirements in Division 01 Section "Closeout Procedures."
- C. Approval Stamp: Stamp each submittal with a uniform, approval stamp. Include Project name and location, submittal number, Specification Section title and number, name of reviewer, date of Contractor's approval, and statement certifying that submittal has been reviewed, checked, and approved for compliance with the Contract Documents.

### 3.2 ARCHITECT'S ACTION

- A. Action Submittals: Architect will review each submittal, make marks to indicate corrections or revisions required, and return it. Architect will stamp each submittal with an action stamp and will mark stamp appropriately to indicate action.
- B. Informational Submittals: Architect will review each submittal and will not return it, or will return it if it does not comply with requirements. Architect will forward each submittal to appropriate party.
- C. Partial submittals prepared for a portion of the Work will be reviewed when use of partial submittals has received prior approval from Architect.
- D. Incomplete submittals are unacceptable, will be considered nonresponsive, and will be returned for resubmittal without review.
- E. Submittals not required by the Contract Documents may be returned by the Architect without action.

END OF SECTION 013300



## SECTION 014000 - QUALITY REQUIREMENTS

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. Section includes administrative and procedural requirements for quality assurance and quality control.
- B. Testing and inspecting services are required to verify compliance with requirements specified or indicated. These services do not relieve Contractor of responsibility for compliance with the Contract Document requirements.
  - 1. Specific quality-assurance and -control requirements for individual construction activities are specified in the Sections that specify those activities. Requirements in those Sections may also cover production of standard products.
  - 2. Specified tests, inspections, and related actions do not limit Contractor's other quality-assurance and -control procedures that facilitate compliance with the Contract Document requirements.
  - 3. Requirements for Contractor to provide quality-assurance and -control services required by Architect, Owner, or authorities having jurisdiction are not limited by provisions of this Section.
- C. Related Requirements:
  - 1. Divisions 02 through 33 Sections for specific test and inspection requirements.

#### 1.3 DEFINITIONS

- A. Quality-Assurance Services: Activities, actions, and procedures performed before and during execution of the Work to guard against defects and deficiencies and substantiate that proposed construction will comply with requirements.
- B. Quality-Control Services: Tests, inspections, procedures, and related actions during and after execution of the Work to evaluate that actual products incorporated into the Work and completed construction comply with requirements. Services do not include contract enforcement activities performed by Architect.
- C. Preconstruction Testing: Tests and inspections performed specifically for Project before products and materials are incorporated into the Work, to verify performance or compliance with specified criteria.

- D. Product Testing: Tests and inspections that are performed by an NRTL, an NVLAP, or a testing agency qualified to conduct product testing and acceptable to authorities having jurisdiction, to establish product performance and compliance with specified requirements.
- E. Source Quality-Control Testing: Tests and inspections that are performed at the source, e.g., plant, mill, factory, or shop.
- F. Field Quality-Control Testing: Tests and inspections that are performed on-site for installation of the Work and for completed Work.
- G. Testing Agency: An entity engaged to perform specific tests, inspections, or both. Testing laboratory shall mean the same as testing agency.
- H. Installer/Applicator/Erector: Contractor or another entity engaged by Contractor as an employee, Subcontractor, or Sub-subcontractor, to perform a particular construction operation, including installation, erection, application, and similar operations.
  - 1. Use of trade-specific terminology in referring to a trade or entity does not require that certain construction activities be performed by accredited or unionized individuals, or that requirements specified apply exclusively to specific trade(s).
- I. Experienced: When used with an entity or individual, "experienced" means having successfully completed a minimum of five previous projects similar in nature, size, and extent to this Project; being familiar with special requirements indicated; and having complied with requirements of authorities having jurisdiction.

#### 1.4 CONFLICTING REQUIREMENTS

- A. Referenced Standards: If compliance with two or more standards is specified and the standards establish different or conflicting requirements for minimum quantities or quality levels, comply with the most stringent requirement. Refer conflicting requirements that are different, but apparently equal, to Architect for a decision before proceeding.
- B. Minimum Quantity or Quality Levels: The quantity or quality level shown or specified shall be the minimum provided or performed. The actual installation may comply exactly with the minimum quantity or quality specified, or it may exceed the minimum within reasonable limits. To comply with these requirements, indicated numeric values are minimum or maximum, as appropriate, for the context of requirements. Refer uncertainties to Architect for a decision before proceeding.

#### 1.5 INFORMATIONAL SUBMITTALS

- A. Contractor's Quality-Control Plan: For quality-assurance and quality-control activities and responsibilities.
- B. Qualification Data: For Contractor's quality-control personnel.

- C. Testing Agency Qualifications: For testing agencies specified in "Quality Assurance" Article to demonstrate their capabilities and experience. Include proof of qualifications in the form of a recent report on the inspection of the testing agency by a recognized authority.
- D. Schedule of Tests and Inspections: Prepare in tabular form and include the following:
  - 1. Specification Section number and title.
  - 2. Entity responsible for performing tests and inspections.
  - 3. Description of test and inspection.
  - 4. Identification of applicable standards.
  - 5. Identification of test and inspection methods.
  - 6. Number of tests and inspections required.
  - 7. Time schedule or time span for tests and inspections.
  - 8. Requirements for obtaining samples.
  - 9. Unique characteristics of each quality-control service.

## 1.6 REPORTS AND DOCUMENTS

- A. Test and Inspection Reports: Prepare and submit certified written reports specified in other Sections. Include the following:
  - 1. Date of issue.
  - 2. Project title and number.
  - 3. Name, address, and telephone number of testing agency.
  - 4. Dates and locations of samples and tests or inspections.
  - 5. Names of individuals making tests and inspections.
  - 6. Description of the Work and test and inspection method.
  - 7. Identification of product and Specification Section.
  - 8. Complete test or inspection data.
  - 9. Test and inspection results and an interpretation of test results.
  - 10. Record of temperature and weather conditions at time of sample taking and testing and inspecting.
  - 11. Comments or professional opinion on whether tested or inspected Work complies with the Contract Document requirements.
  - 12. Name and signature of laboratory inspector.
  - 13. Recommendations on retesting and reinspecting.
- B. Manufacturer's Technical Representative's Field Reports: Prepare written information documenting manufacturer's technical representative's tests and inspections specified in other Sections. Include the following:
  - 1. Name, address, and telephone number of technical representative making report.
  - 2. Statement on condition of substrates and their acceptability for installation of product.
  - 3. Statement that products at Project site comply with requirements.
  - 4. Summary of installation procedures being followed, whether they comply with requirements and, if not, what corrective action was taken.
  - 5. Results of operational and other tests and a statement of whether observed performance complies with requirements.
  - 6. Statement whether conditions, products, and installation will affect warranty.
  - 7. Other required items indicated in individual Specification Sections.

- C. **Factory-Authorized Service Representative's Reports:** Prepare written information documenting manufacturer's factory-authorized service representative's tests and inspections specified in other Sections. Include the following:
  - 1. Name, address, and telephone number of factory-authorized service representative making report.
  - 2. Statement that equipment complies with requirements.
  - 3. Results of operational and other tests and a statement of whether observed performance complies with requirements.
  - 4. Statement whether conditions, products, and installation will affect warranty.
  - 5. Other required items indicated in individual Specification Sections.
- D. **Permits, Licenses, and Certificates:** For Owner's records, submit copies of permits, licenses, certifications, inspection reports, releases, jurisdictional settlements, notices, receipts for fee payments, judgments, correspondence, records, and similar documents, established for compliance with standards and regulations bearing on performance of the Work.

## 1.7 QUALITY ASSURANCE

- A. **General:** Qualifications paragraphs in this article establish the minimum qualification levels required; individual Specification Sections specify additional requirements.
- B. **Manufacturer Qualifications:** A firm experienced in manufacturing products or systems similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.
- C. **Fabricator Qualifications:** A firm experienced in producing products similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.
- D. **Installer Qualifications:** A firm or individual experienced in installing, erecting, or assembling work similar in material, design, and extent to that indicated for this Project, whose work has resulted in construction with a record of successful in-service performance.
- E. **Professional Engineer Qualifications:** A professional engineer who is legally qualified to practice in jurisdiction where Project is located and who is experienced in providing engineering services of the kind indicated. Engineering services are defined as those performed for installations of the system, assembly, or product that are similar in material, design, and extent to those indicated for this Project.
- F. **Specialists:** Certain Specification Sections require that specific construction activities shall be performed by entities who are recognized experts in those operations. Specialists shall satisfy qualification requirements indicated and shall be engaged for the activities indicated.
  - 1. Requirements of authorities having jurisdiction shall supersede requirements for specialists.
- G. **Testing Agency Qualifications:** An NRTL, an NVLAP, or an independent agency with the experience and capability to conduct testing and inspecting indicated, as documented according

to ASTM E 329; and with additional qualifications specified in individual Sections; and, where required by authorities having jurisdiction, that is acceptable to authorities.

1. NRTL: A nationally recognized testing laboratory according to 29 CFR 1910.7.
  2. NVLAP: A testing agency accredited according to NIST's National Voluntary Laboratory Accreditation Program.
- H. Manufacturer's Technical Representative Qualifications: An authorized representative of manufacturer who is trained and approved by manufacturer to observe and inspect installation of manufacturer's products that are similar in material, design, and extent to those indicated for this Project.
- I. Factory-Authorized Service Representative Qualifications: An authorized representative of manufacturer who is trained and approved by manufacturer to inspect installation of manufacturer's products that are similar in material, design, and extent to those indicated for this Project.
- J. Preconstruction Testing: Where testing agency is indicated to perform preconstruction testing for compliance with specified requirements for performance and test methods, comply with the following:
1. Contractor responsibilities include the following:
    - a. Provide test specimens representative of proposed products and construction.
    - b. Submit specimens in a timely manner with sufficient time for testing and analyzing results to prevent delaying the Work.
    - c. Provide sizes and configurations of test assemblies, mockups, and laboratory mockups to adequately demonstrate capability of products to comply with performance requirements.
    - d. Build site-assembled test assemblies and mockups using installers who will perform same tasks for Project.
    - e. Build laboratory mockups at testing facility using personnel, products, and methods of construction indicated for the completed Work.
  2. Testing Agency Responsibilities: Submit a certified written report of each test, inspection, and similar quality-assurance service to Architect through Construction Manager], with copy to Contractor. Interpret tests and inspections and state in each report whether tested and inspected work complies with or deviates from the Contract Documents.

## 1.8 QUALITY CONTROL

- A. Owner Responsibilities: Where quality-control services are indicated as Owner's responsibility, Owner will engage a qualified testing agency to perform these services.
1. Owner will furnish Contractor with names, addresses, and telephone numbers of testing agencies engaged and a description of types of testing and inspecting they are engaged to perform.
  2. Payment for these services will be made from testing and inspecting allowances, as authorized by Change Orders.

3. Costs for retesting and reinspecting construction that replaces or is necessitated by work that failed to comply with the Contract Documents will be charged to Contractor.
- B. Contractor Responsibilities: Tests and inspections not explicitly assigned to Owner are Contractor's responsibility. Perform additional quality-control activities required to verify that the Work complies with requirements, whether specified or not.
1. Unless otherwise indicated, provide quality-control services specified and those required by authorities having jurisdiction. Perform quality-control services required of Contractor by authorities having jurisdiction, whether specified or not.
  2. Where services are indicated as Contractor's responsibility, engage a qualified testing agency to perform these quality-control services.
    - a. Contractor shall not employ same entity engaged by Owner, unless agreed to in writing by Owner.
  3. Notify testing agencies at least 24 hours in advance of time when Work that requires testing or inspecting will be performed.
  4. Where quality-control services are indicated as Contractor's responsibility, submit a certified written report, in duplicate, of each quality-control service.
  5. Testing and inspecting requested by Contractor and not required by the Contract Documents are Contractor's responsibility.
  6. Submit additional copies of each written report directly to authorities having jurisdiction, when they so direct.
- C. Manufacturer's Field Services: Where indicated, engage a factory-authorized service representative to inspect field-assembled components and equipment installation, including service connections. Report results in writing as specified in Division 01 Section "Submittal Procedures."
- D. Manufacturer's Technical Services: Where indicated, engage a manufacturer's technical representative to observe and inspect the Work. Manufacturer's technical representative's services include participation in preinstallation conferences, examination of substrates and conditions, verification of materials, observation of Installer activities, inspection of completed portions of the Work, and submittal of written reports.
- E. Retesting/Reinspecting: Regardless of whether original tests or inspections were Contractor's responsibility, provide quality-control services, including retesting and reinspecting, for construction that replaced Work that failed to comply with the Contract Documents.
- F. Testing Agency Responsibilities: Cooperate with Architect and Contractor in performance of duties. Provide qualified personnel to perform required tests and inspections.
1. Notify Architect and Contractor promptly of irregularities or deficiencies observed in the Work during performance of its services.
  2. Determine the location from which test samples will be taken and in which in-situ tests are conducted.
  3. Conduct and interpret tests and inspections and state in each report whether tested and inspected work complies with or deviates from requirements.
  4. Submit a certified written report, in duplicate, of each test, inspection, and similar quality-control service through Contractor.

5. Do not release, revoke, alter, or increase the Contract Document requirements or approve or accept any portion of the Work.
  6. Do not perform any duties of Contractor.
- G. Associated Services: Cooperate with agencies performing required tests, inspections, and similar quality-control services, and provide reasonable auxiliary services as requested. Notify agency sufficiently in advance of operations to permit assignment of personnel. Provide the following:
1. Access to the Work.
  2. Incidental labor and facilities necessary to facilitate tests and inspections.
  3. Adequate quantities of representative samples of materials that require testing and inspecting. Assist agency in obtaining samples.
  4. Facilities for storage and field curing of test samples.
  5. Delivery of samples to testing agencies.
  6. Preliminary design mix proposed for use for material mixes that require control by testing agency.
  7. Security and protection for samples and for testing and inspecting equipment at Project site.
- H. Coordination: Coordinate sequence of activities to accommodate required quality-assurance and -control services with a minimum of delay and to avoid necessity of removing and replacing construction to accommodate testing and inspecting.
1. Schedule times for tests, inspections, obtaining samples, and similar activities.

## PART 2 - PRODUCTS (Not Used)

## PART 3 - EXECUTION

### 3.1 REPAIR AND PROTECTION

- A. General: On completion of testing, inspecting, sample taking, and similar services, repair damaged construction and restore substrates and finishes.
1. Provide materials and comply with installation requirements specified in other Specification Sections or matching existing substrates and finishes. Restore patched areas and extend restoration into adjoining areas with durable seams that are as invisible as possible. Comply with the Contract Document requirements for cutting and patching in Division 01 Section "Execution."
- B. Protect construction exposed by or for quality-control service activities.
- C. Repair and protection are Contractor's responsibility, regardless of the assignment of responsibility for quality-control services.

END OF SECTION 014000



## SECTION 014200 - REFERENCES

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 DEFINITIONS

- A. General: Basic Contract definitions are included in the Conditions of the Contract.
- B. "Approved": When used to convey Architect's action on Contractor's submittals, applications, and requests, "approved" is limited to Architect's duties and responsibilities as stated in the Conditions of the Contract.
- C. "Directed": A command or instruction by Architect. Other terms including "requested," "authorized," "selected," "required," and "permitted" have the same meaning as "directed."
- D. "Indicated": Requirements expressed by graphic representations or in written form on Drawings, in Specifications, and in other Contract Documents. Other terms including "shown," "noted," "scheduled," and "specified" have the same meaning as "indicated."
- E. "Regulations": Laws, ordinances, statutes, and lawful orders issued by authorities having jurisdiction, and rules, conventions, and agreements within the construction industry that control performance of the Work.
- F. "Furnish": Supply and deliver to Project site, ready for unloading, unpacking, assembly, installation, and similar operations.
- G. "Install": Operations at Project site including unloading, temporarily storing, unpacking, assembling, erecting, placing, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning, and similar operations.
- H. "Provide": Furnish and install, complete and ready for the intended use.
- I. "Project Site": Space available for performing construction activities. The extent of Project site is shown on Drawings and may or may not be identical with the description of the land on which Project is to be built.

#### 1.3 INDUSTRY STANDARDS

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

- B. Publication Dates: Comply with standards in effect as of date of the Contract Documents unless otherwise indicated.
- C. Copies of Standards: Each entity engaged in construction on Project should be familiar with industry standards applicable to its construction activity. Copies of applicable standards are not bound with the Contract Documents.
  - 1. Where copies of standards are needed to perform a required construction activity, obtain copies directly from publication source.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 014200

## SECTION 015000 - TEMPORARY FACILITIES AND CONTROLS

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. Section includes requirements for temporary utilities, support facilities, and security and protection facilities.
- B. Related Requirements:
  - 1. Division 01 Section "Summary" for work restrictions and limitations on utility interruptions.

#### 1.3 USE CHARGES

- A. General: Installation and removal of and use charges for temporary facilities shall be included in the Contract Sum unless otherwise indicated. Allow other entities to use temporary services and facilities without cost, including, but not limited to, Owner's construction forces, Architect, occupants of Project, testing agencies, and authorities having jurisdiction.
- B. Water and Sewer Service from Existing System: Water from Owner's existing water system is available for use without metering and without payment of use charges. Provide connections and extensions of services as required for construction operations.
- C. Electric Power Service from Existing System: Electric power from Owner's existing system is available for use without metering and without payment of use charges. Provide connections and extensions of services as required for construction operations.

#### 1.4 INFORMATIONAL SUBMITTALS

- A. Fire-Safety Program: Show compliance with requirements of NFPA 241 and authorities having jurisdiction. Indicate Contractor personnel responsible for management of fire-prevention program.
- B. Moisture-Protection Plan: Describe procedures and controls for protecting materials and construction from water absorption and damage.
  - 1. Describe delivery, handling, and storage provisions for materials subject to water absorption or water damage.

2. Indicate procedures for discarding water-damaged materials, protocols for mitigating water intrusion into completed Work, and replacing water-damaged Work.
3. Indicate sequencing of work that requires water, such as sprayed fire-resistive materials, plastering, and terrazzo grinding, and describe plans for dealing with water from these operations. Show procedures for verifying that wet construction has dried sufficiently to permit installation of finish materials.

#### 1.5 QUALITY ASSURANCE

- A. Electric Service: Comply with NECA, NEMA, and UL standards and regulations for temporary electric service. Install service to comply with NFPA 70.
- B. Tests and Inspections: Arrange for authorities having jurisdiction to test and inspect each temporary utility before use. Obtain required certifications and permits.

#### 1.6 PROJECT CONDITIONS

- A. Temporary Use of Permanent Facilities: Engage Installer of each permanent service to assume responsibility for operation, maintenance, and protection of each permanent service during its use as a construction facility before Owner's acceptance, regardless of previously assigned responsibilities.

### PART 2 - PRODUCTS

#### 2.1 TEMPORARY FACILITIES

- A. Field Offices, General: Prefabricated or mobile units with serviceable finishes, temperature controls, and foundations adequate for normal loading.

#### 2.2 EQUIPMENT

- A. Fire Extinguishers: Portable, UL rated; with class and extinguishing agent as required by locations and classes of fire exposures.

### PART 3 - EXECUTION

#### 3.1 INSTALLATION, GENERAL

- A. Locate facilities where they will serve Project adequately and result in minimum interference with performance of the Work. Relocate and modify facilities as required by progress of the Work.
  1. Locate facilities to limit site disturbance as specified in Division 01 Section "Summary."

- B. Provide each facility ready for use when needed to avoid delay. Do not remove until facilities are no longer needed or are replaced by authorized use of completed permanent facilities.

### 3.2 TEMPORARY UTILITY INSTALLATION

- A. General: Install temporary service or connect to existing service.
  - 1. Arrange with utility company, Owner, and existing users for time when service can be interrupted, if necessary, to make connections for temporary services.
- B. Water Service: Connect to Owner's existing water service facilities. Clean and maintain water service facilities in a condition acceptable to Owner. At Substantial Completion, restore these facilities to condition existing before initial use.
- C. Sanitary Facilities: Provide temporary toilets, wash facilities, and drinking water for use of construction personnel. Comply with requirements of authorities having jurisdiction for type, number, location, operation, and maintenance of fixtures and facilities.
- D. Isolation of Work Areas in Occupied Facilities: Prevent dust, fumes, and odors from entering occupied areas.
  - 1. Prior to commencing work, isolate the HVAC system in area where work is to be performed according to coordination drawings.
    - a. Maintain negative air pressure within work area using HEPA-equipped air-filtration units, starting with commencement of temporary partition construction, and continuing until removal of temporary partitions is complete.
  - 2. Maintain dust partitions during the Work. Use vacuum collection attachments on dust-producing equipment. Isolate limited work within occupied areas using portable dust-containment devices.
  - 3. Perform daily construction cleanup and final cleanup using approved, HEPA-filter-equipped vacuum equipment.

### 3.3 SUPPORT FACILITIES INSTALLATION

- A. General: Comply with the following:
  - 1. Maintain support facilities until Architect schedules Substantial Completion inspection. Remove before Substantial Completion. Personnel remaining after Substantial Completion will be permitted to use permanent facilities, under conditions acceptable to Owner.
- B. Parking: Use designated areas of Owner's existing parking areas for construction personnel.
- C. Project Signs: Provide Project signs as indicated. Unauthorized signs are not permitted.
  - 1. Identification Signs: Provide Project identification signs as indicated on Drawings.
  - 2. Temporary Signs: Provide other signs as indicated and as required to inform public and individuals seeking entrance to Project.

- a. Provide temporary, directional signs for construction personnel and visitors.
- 3. Maintain and touchup signs so they are legible at all times.
- D. Waste Disposal Facilities: Provide waste-collection containers in sizes adequate to handle waste from construction operations. Comply with requirements of authorities having jurisdiction. Comply with progress cleaning requirements in Division 01 Section "Execution."

### 3.4 SECURITY AND PROTECTION FACILITIES INSTALLATION

- A. Protection of Existing Facilities: Protect existing vegetation, equipment, structures, utilities, and other improvements at Project site and on adjacent properties, except those indicated to be removed or altered. Repair damage to existing facilities.
- B. Environmental Protection: Provide protection, operate temporary facilities, and conduct construction as required to comply with environmental regulations and that minimize possible air, waterway, and subsoil contamination or pollution or other undesirable effects.
  - 1. Comply with work restrictions specified in Division 01 Section "Summary."
- C. Site Enclosure Fence: Before construction operations begin furnish and install site enclosure fence in a manner that will prevent people and animals from easily entering site except by entrance gates.
  - 1. Extent of Fence: As required to enclose entire Project site or portion determined sufficient to accommodate construction operations.
  - 2. Maintain security by limiting number of keys and restricting distribution to authorized personnel. Furnish one set of keys to Owner.
- D. Security Enclosure and Lockup: Install temporary enclosure around partially completed areas of construction. Provide lockable entrances to prevent unauthorized entrance, vandalism, theft, and similar violations of security. Lock entrances at end of each work day.
- E. Barricades, Warning Signs, and Lights: Comply with requirements of authorities having jurisdiction for erecting structurally adequate barricades, including warning signs and lighting.
- F. Temporary Enclosures: Provide temporary enclosures for protection of construction, in progress and completed, from exposure, foul weather, other construction operations, and similar activities. Provide temporary weathertight enclosure for building exterior.
  - 1. Where heating or cooling is needed and permanent enclosure is incomplete, insulate temporary enclosures.

### 3.5 MOISTURE AND MOLD CONTROL

- A. Contractor's Moisture-Protection Plan: Avoid trapping water in finished work. Document visible signs of mold that may appear during construction.
- B. Exposed Construction Phase: Before installation of weather barriers, when materials are subject to wetting and exposure and to airborne mold spores, protect as follows:

1. Protect porous materials from water damage.
  2. Protect stored and installed material from flowing or standing water.
  3. Keep porous and organic materials from coming into prolonged contact with concrete.
  4. Remove standing water from decks.
  5. Keep deck openings covered or dammed.
- C. Partially Enclosed Construction Phase: After installation of weather barriers but before full enclosure and conditioning of building, when installed materials are still subject to infiltration of moisture and ambient mold spores, protect as follows:
1. Do not load or install drywall or other porous materials or components, or items with high organic content, into partially enclosed building.
  2. Keep interior spaces reasonably clean and protected from water damage.
  3. Periodically collect and remove waste containing cellulose or other organic matter.
  4. Discard or replace water-damaged material.
  5. Do not install material that is wet.
  6. Discard, replace, or clean stored or installed material that begins to grow mold.
  7. Perform work in a sequence that allows any wet materials adequate time to dry before enclosing the material in drywall or other interior finishes.
- D. Controlled Construction Phase of Construction: After completing and sealing of the building enclosure but prior to the full operation of permanent HVAC systems, maintain as follows:
1. Control moisture and humidity inside building by maintaining effective dry-in conditions.
  2. Use permanent HVAC system to control humidity.
  3. Comply with manufacturer's written instructions for temperature, relative humidity, and exposure to water limits.

### 3.6 OPERATION, TERMINATION, AND REMOVAL

- A. Supervision: Enforce strict discipline in use of temporary facilities. To minimize waste and abuse, limit availability of temporary facilities to essential and intended uses.
- B. Maintenance: Maintain facilities in good operating condition until removal.
1. Maintain operation of temporary enclosures, heating, cooling, humidity control, ventilation, and similar facilities on a 24-hour basis where required to achieve indicated results and to avoid possibility of damage.
- C. Temporary Facility Changeover: Do not change over from using temporary security and protection facilities to permanent facilities until Substantial Completion.
- D. Termination and Removal: Remove each temporary facility when need for its service has ended, when it has been replaced by authorized use of a permanent facility, or no later than Substantial Completion. Complete or, if necessary, restore permanent construction that may have been delayed because of interference with temporary facility. Repair damaged Work, clean exposed surfaces, and replace construction that cannot be satisfactorily repaired.
1. Materials and facilities that constitute temporary facilities are property of Contractor. Owner reserves right to take possession of Project identification signs.

2. Remove temporary roads and paved areas not intended for or acceptable for integration into permanent construction. Where area is intended for landscape development, remove soil and aggregate fill that do not comply with requirements for fill or subsoil. Remove materials contaminated with road oil, asphalt and other petrochemical compounds, and other substances that might impair growth of plant materials or lawns. Repair or replace street paving, curbs, and sidewalks at temporary entrances, as required by authorities having jurisdiction.
3. At Substantial Completion, repair, renovate, and clean permanent facilities used during construction period. Comply with final cleaning requirements specified in Division 01 Section "Closeout Procedures."

END OF SECTION 015000

## SECTION 017300 - EXECUTION

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. Section includes general administrative and procedural requirements governing execution of the Work including, but not limited to, the following:

1. Construction layout.
2. Field engineering and surveying.
3. Installation of the Work.
4. Cutting and patching.
5. Coordination of Owner-installed products.
6. Progress cleaning.
7. Starting and adjusting.
8. Protection of installed construction.
9. Correction of the Work.

- B. Related Requirements:

1. Division 01 Section "Summary" for limits on use of Project site.
2. Division 01 Section "Submittal Procedures" for submitting surveys.
3. Division 01 Section "Closeout Procedures" for submitting final property survey with Project Record Documents, recording of Owner-accepted deviations from indicated lines and levels, and final cleaning.
4. Division 02 Section "Selective Structure Demolition" for demolition and removal of selected portions of the building.

#### 1.3 DEFINITIONS

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

#### 1.4 INFORMATIONAL SUBMITTALS

- A. Landfill Receipts: Submit copy of receipts issued by a landfill facility, licensed to accept hazardous materials, for hazardous waste disposal.

## 1.5 QUALITY ASSURANCE

- A. Land Surveyor Qualifications: A professional land surveyor who is legally qualified to practice in jurisdiction where Project is located and who is experienced in providing land-surveying services of the kind indicated.
- B. Cutting and Patching: Comply with requirements for and limitations on cutting and patching of construction elements.
  - 1. Structural Elements: When cutting and patching structural elements, notify Architect of locations and details of cutting and await directions from Architect before proceeding. Shore, brace, and support structural elements during cutting and patching. Do not cut and patch structural elements in a manner that could change their load-carrying capacity or increase deflection
  - 2. Operational Elements: Do not cut and patch operating elements and related components in a manner that results in reducing their capacity to perform as intended or that results in increased maintenance or decreased operational life or safety. Operational elements include the following:
    - a. Primary operational systems and equipment.
    - b. Fire separation assemblies.
    - c. Air or smoke barriers.
    - d. Fire-suppression systems.
    - e. Mechanical systems piping and ducts.
    - f. Control systems.
    - g. Communication systems.
    - h. Fire-detection and -alarm systems.
    - i. Conveying systems.
    - j. Electrical wiring systems.
    - k. Operating systems of special construction.
  - 3. Other Construction Elements: Do not cut and patch other construction elements or components in a manner that could change their load-carrying capacity, that results in reducing their capacity to perform as intended, or that results in increased maintenance or decreased operational life or safety. Other construction elements include but are not limited to the following:
    - a. Water, moisture, or vapor barriers.
    - b. Membranes and flashings.
    - c. Exterior curtain-wall construction.
    - d. Sprayed fire-resistive material.
    - e. Equipment supports.
    - f. Piping, ductwork, vessels, and equipment.
    - g. Noise- and vibration-control elements and systems.
  - 4. Visual Elements: Do not cut and patch construction in a manner that results in visual evidence of cutting and patching. Do not cut and patch exposed construction in a manner that would, in Architect's opinion, reduce the building's aesthetic qualities. Remove and replace construction that has been cut and patched in a visually unsatisfactory manner.

- C. Cutting and Patching Conference: Before proceeding, meet at Project site with parties involved in cutting and patching, including mechanical and electrical trades. Review areas of potential interference and conflict. Coordinate procedures and resolve potential conflicts before proceeding.
- D. Manufacturer's Installation Instructions: Obtain and maintain on-site manufacturer's written recommendations and instructions for installation of products and equipment.

## PART 2 - PRODUCTS (Not Used)

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Existing Conditions: The existence and location of underground and other utilities and construction indicated as existing are not guaranteed. Before beginning sitework, investigate and verify the existence and location of underground utilities, and other construction affecting the Work.
  - 1. Before construction, verify the location and invert elevation at points of connection of sanitary sewer, storm sewer, and water-service piping; underground electrical services, and other utilities.
  - 2. Furnish location data for work related to Project that must be performed by public utilities serving Project site.
- B. Examination and Acceptance of Conditions: Before proceeding with each component of the Work, examine substrates, areas, and conditions, with Installer or Applicator present where indicated, for compliance with requirements for installation tolerances and other conditions affecting performance. Record observations.
  - 1. Examine roughing-in for mechanical and electrical systems to verify actual locations of connections before equipment and fixture installation.
  - 2. Examine walls, floors, and roofs for suitable conditions where products and systems are to be installed.
  - 3. Verify compatibility with and suitability of substrates, including compatibility with existing finishes or primers.

### 3.2 PREPARATION

- A. Existing Utility Information: Furnish information to local utility Owner that is necessary to adjust, move, or relocate existing utility structures, utility poles, lines, services, or other utility appurtenances located in or affected by construction. Coordinate with authorities having jurisdiction.
- B. Field Measurements: Take field measurements as required to fit the Work properly. Recheck measurements before installing each product. Where portions of the Work are indicated to fit to other construction, verify dimensions of other construction by field measurements before

fabrication. Coordinate fabrication schedule with construction progress to avoid delaying the Work.

- C. Space Requirements: Verify space requirements and dimensions of items shown diagrammatically on Drawings.
- D. Review of Contract Documents and Field Conditions: Immediately on discovery of the need for clarification of the Contract Documents caused by differing field conditions outside the control of Contractor, submit a request for information to Architect according to requirements in Division 01 Section "Project Management and Coordination."

### 3.3 CONSTRUCTION LAYOUT

- A. Verification: Before proceeding to lay out the Work, verify layout information shown on Drawings, in relation to the property survey and existing benchmarks. If discrepancies are discovered, notify Architect promptly.

### 3.4 INSTALLATION

- A. General: Locate the Work and components of the Work accurately, in correct alignment and elevation, as indicated.
  - 1. Make vertical work plumb and make horizontal work level.
  - 2. Where space is limited, install components to maximize space available for maintenance and ease of removal for replacement.
  - 3. Conceal pipes, ducts, and wiring in finished areas unless otherwise indicated.
- B. Comply with manufacturer's written instructions and recommendations for installing products in applications indicated.
- C. Install products at the time and under conditions that will ensure the best possible results. Maintain conditions required for product performance until Substantial Completion.
- D. Conduct construction operations so no part of the Work is subjected to damaging operations or loading in excess of that expected during normal conditions of occupancy.
- E. Sequence the Work and allow adequate clearances to accommodate movement of construction items on site and placement in permanent locations.
- F. Tools and Equipment: Do not use tools or equipment that produce harmful noise levels.
- G. Templates: Obtain and distribute to the parties involved templates for work specified to be factory prepared and field installed. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing products to comply with indicated requirements.
- H. Attachment: Provide blocking and attachment plates and anchors and fasteners of adequate size and number to securely anchor each component in place, accurately located and aligned with other portions of the Work. Where size and type of attachments are not indicated, verify size and type required for load conditions.

1. Mounting Heights: Where mounting heights are not indicated, mount components at heights directed by Architect.
  2. Allow for building movement, including thermal expansion and contraction.
  3. Coordinate installation of anchorages. Furnish setting drawings, templates, and directions for installing anchorages, including sleeves, concrete inserts, anchor bolts, and items with integral anchors, that are to be embedded in concrete or masonry. Deliver such items to Project site in time for installation.
- I. Joints: Make joints of uniform width. Where joint locations in exposed work are not indicated, arrange joints for the best visual effect. Fit exposed connections together to form hairline joints.
- J. Hazardous Materials: Use products, cleaners, and installation materials that are not considered hazardous.

### 3.5 CUTTING AND PATCHING

- A. Cutting and Patching, General: Employ skilled workers to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time, and complete without delay.
1. Cut in-place construction to provide for installation of other components or performance of other construction, and subsequently patch as required to restore surfaces to their original condition.
- B. Existing Warranties: Remove, replace, patch, and repair materials and surfaces cut or damaged during installation or cutting and patching operations, by methods and with materials so as not to void existing warranties.
- C. Temporary Support: Provide temporary support of work to be cut.
- D. Protection: Protect in-place construction during cutting and patching to prevent damage. Provide protection from adverse weather conditions for portions of Project that might be exposed during cutting and patching operations.
- E. Adjacent Occupied Areas: Where interference with use of adjoining areas or interruption of free passage to adjoining areas is unavoidable, coordinate cutting and patching according to requirements in Division 01 Section "Summary."
- F. Cutting: Cut in-place construction by sawing, drilling, breaking, chipping, grinding, and similar operations, including excavation, using methods least likely to damage elements retained or adjoining construction. If possible, review proposed procedures with original Installer; comply with original Installer's written recommendations.
1. In general, use hand or small power tools designed for sawing and grinding, not hammering and chopping. Cut holes and slots neatly to minimum size required, and with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use.
  2. Finished Surfaces: Cut or drill from the exposed or finished side into concealed surfaces.
  3. Concrete and Masonry: Cut using a cutting machine, such as an abrasive saw or a diamond-core drill.
  4. Excavating and Backfilling: Comply with requirements in applicable Division 31 Sections where required by cutting and patching operations.

5. Mechanical and Electrical Services: Cut off pipe or conduit in walls or partitions to be removed. Cap, valve, or plug and seal remaining portion of pipe or conduit to prevent entrance of moisture or other foreign matter after cutting.
  6. Proceed with patching after construction operations requiring cutting are complete.
- G. Patching: Patch construction by filling, repairing, refinishing, closing up, and similar operations following performance of other work. Patch with durable seams that are as invisible as practicable. Provide materials and comply with installation requirements specified in other Sections, where applicable.
1. Inspection: Where feasible, test and inspect patched areas after completion to demonstrate physical integrity of installation.
  2. Exposed Finishes: Restore exposed finishes of patched areas and extend finish restoration into retained adjoining construction in a manner that will minimize evidence of patching and refinishing.
    - a. Clean piping, conduit, and similar features before applying paint or other finishing materials.
    - b. Restore damaged pipe covering to its original condition.
  3. Floors and Walls: Where walls or partitions that are removed extend one finished area into another, patch and repair floor and wall surfaces in the new space. Provide an even surface of uniform finish, color, texture, and appearance. Remove in-place floor and wall coverings and replace with new materials, if necessary, to achieve uniform color and appearance.
    - a. Where patching occurs in a painted surface, prepare substrate and apply primer and intermediate paint coats appropriate for substrate over the patch, and apply final paint coat over entire unbroken surface containing the patch. Provide additional coats until patch blends with adjacent surfaces.
  4. Ceilings: Patch, repair, or rehang in-place ceilings as necessary to provide an even-plane surface of uniform appearance.
  5. Exterior Building Enclosure: Patch components in a manner that restores enclosure to a weathertight condition and ensures thermal and moisture integrity of building enclosure.
- H. Cleaning: Clean areas and spaces where cutting and patching are performed. Remove paint, mortar, oils, putty, and similar materials from adjacent finished surfaces.

### 3.6 OWNER-INSTALLED PRODUCTS

- A. Site Access: Provide access to Project site for Owner's construction personnel.
- B. Coordination: Coordinate construction and operations of the Work with work performed by Owner's construction personnel.
  1. Construction Schedule: Inform Owner of Contractor's preferred construction schedule for Owner's portion of the Work. Adjust construction schedule based on a mutually agreeable timetable. Notify Owner if changes to schedule are required due to differences in actual construction progress.

2. Preinstallation Conferences: Include Owner's construction personnel at preinstallation conferences covering portions of the Work that are to receive Owner's work. Attend preinstallation conferences conducted by Owner's construction personnel if portions of the Work depend on Owner's construction.

### 3.7 PROGRESS CLEANING

- A. General: Clean Project site and work areas daily, including common areas. Enforce requirements strictly. Dispose of materials lawfully.
  1. Comply with requirements in NFPA 241 for removal of combustible waste materials and debris.
  2. Do not hold waste materials more than seven days during normal weather or three days if the temperature is expected to rise above 80 deg F.
  3. Containerize hazardous and unsanitary waste materials separately from other waste. Mark containers appropriately and dispose of legally, according to regulations.
    - a. Use containers intended for holding waste materials of type to be stored.
  4. Coordinate progress cleaning for joint-use areas where Contractor and other contractors are working concurrently.
- B. Site: Maintain Project site free of waste materials and debris.
- C. Work Areas: Clean areas where work is in progress to the level of cleanliness necessary for proper execution of the Work.
  1. Remove liquid spills promptly.
  2. Where dust would impair proper execution of the Work, broom-clean or vacuum the entire work area, as appropriate.
- D. Installed Work: Keep installed work clean. Clean installed surfaces according to written instructions of manufacturer or fabricator of product installed, using only cleaning materials specifically recommended. If specific cleaning materials are not recommended, use cleaning materials that are not hazardous to health or property and that will not damage exposed surfaces.
- E. Concealed Spaces: Remove debris from concealed spaces before enclosing the space.
- F. Exposed Surfaces in Finished Areas: Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Substantial Completion.
- G. Waste Disposal: Do not bury or burn waste materials on-site. Do not wash waste materials down sewers or into waterways. Comply with waste disposal requirements in Division 01 Section "Temporary Facilities and Controls."
- H. During handling and installation, clean and protect construction in progress and adjoining materials already in place. Apply protective covering where required to ensure protection from damage or deterioration at Substantial Completion.

- I. Clean and provide maintenance on completed construction as frequently as necessary through the remainder of the construction period. Adjust and lubricate operable components to ensure operability without damaging effects.
- J. Limiting Exposures: Supervise construction operations to assure that no part of the construction, completed or in progress, is subject to harmful, dangerous, damaging, or otherwise deleterious exposure during the construction period.

### 3.8 STARTING AND ADJUSTING

- A. Coordinate startup and adjusting of equipment and operating components with requirements in Division 01 Section "General Commissioning Requirements."
- B. Start equipment and operating components to confirm proper operation. Remove malfunctioning units, replace with new units, and retest.
- C. Adjust equipment for proper operation. Adjust operating components for proper operation without binding.
- D. Test each piece of equipment to verify proper operation. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.
- E. Manufacturer's Field Service: Comply with qualification requirements in Division 01 Section "Quality Requirements."

### 3.9 PROTECTION OF INSTALLED CONSTRUCTION

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

END OF SECTION 017300

## SECTION 017329 - CUTTING AND PATCHING

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. This Section includes procedural requirements for cutting and patching.

#### 1.3 DEFINITIONS

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

#### 1.4 SUBMITTALS

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

## 1.5 QUALITY ASSURANCE

- A. Structural Elements: Do not cut and patch structural elements in a manner that could change their load-carrying capacity or load-deflection ratio.
- B. Operational Elements: Do not cut and patch operating elements and related components in a manner that results in reducing their capacity to perform as intended or that result in increased maintenance or decreased operational life or safety. Operating elements include the following:
  - 1. Primary operational systems and equipment.
  - 2. Fire-suppression systems.
  - 3. Mechanical systems piping and ducts.
  - 4. Control systems.
  - 5. Communication systems.
  - 6. Conveying systems.
  - 7. Electrical wiring systems.
  - 8. Operating systems of special construction in Division 13 Sections.
- C. Miscellaneous Elements: Do not cut and patch miscellaneous elements or related components in a manner that could change their load-carrying capacity that results in reducing their capacity to perform as intended, or that result in increased maintenance or decreased operational life or safety. Miscellaneous elements include the following:
  - 1. Water, moisture, or vapor barriers.
  - 2. Membranes and flashings.
  - 3. Exterior curtain-wall construction.
  - 4. Equipment supports.
  - 5. Piping, ductwork, vessels, and equipment.
  - 6. Noise- and vibration-control elements and systems.
- D. Visual Requirements: Do not cut and patch construction in a manner that results in visual evidence of cutting and patching. Do not cut and patch construction exposed on the exterior or in occupied spaces in a manner that would, in Architect's opinion, reduce the building's aesthetic qualities. Remove and replace construction that has been cut and patched in a visually unsatisfactory manner.

## 1.6 WARRANTY

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

## PART 2 - PRODUCTS

### 2.1 MATERIALS

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

## PART 3 - EXECUTION

### 3.1 EXAMINATION

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

### 3.2 PREPARATION

- A. Temporary Support: Provide temporary support of Work to be cut.
- B. Protection: Protect in-place construction during cutting and patching to prevent damage. Provide protection from adverse weather conditions for portions of Project that might be exposed during cutting and patching operations.
- C. Adjoining Areas: Avoid interference with use of adjoining areas or interruption of free passage to adjoining areas.

### 3.3 PERFORMANCE

- A. General: Employ skilled workers to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time, and complete without delay.
  - 1. Cut in-place construction to provide for installation of other components or performance of other construction, and subsequently patch as required to restore surfaces to their original condition.
- B. Cutting: Cut in-place construction by sawing, drilling, breaking, chipping, grinding, and similar operations, including excavation, using methods least likely to damage elements retained or adjoining construction. If possible, review proposed procedures with original Installer; comply with original Installer's written recommendations.
  - 1. In general, use hand or small power tools designed for sawing and grinding, not hammering and chopping. Cut holes and slots as small as possible, neatly to size required, and with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use.
  - 2. Finished Surfaces: Cut or drill from the exposed or finished side into concealed surfaces.
  - 3. Concrete and Masonry: Cut using a cutting machine, such as an abrasive saw or a diamond-core drill.
  - 4. Excavating and Backfilling: Comply with requirements in applicable Division 31 Sections where required by cutting and patching operations.

5. Mechanical and Electrical Services: Cut off pipe or conduit in walls or partitions to be removed. Cap, valve, or plug and seal remaining portion of pipe or conduit to prevent entrance of moisture or other foreign matter after cutting.
  6. Proceed with patching after construction operations requiring cutting are complete.
- C. Patching: Patch construction by filling, repairing, refinishing, closing up, and similar operations following performance of other Work. Patch with durable seams that are as invisible as possible. Provide materials and comply with installation requirements specified in other Sections.
1. Inspection: Where feasible, test and inspect patched areas after completion to demonstrate integrity of installation.
  2. Exposed Finishes: Restore exposed finishes of patched areas and extend finish restoration into retained adjoining construction in a manner that will eliminate evidence of patching and refinishing.
    - a. Clean piping, conduit, and similar features before applying paint or other finishing materials.
    - b. Restore damaged pipe covering to its original condition.
  3. Floors and Walls: Where walls or partitions that are removed extend one finished area into another, patch and repair floor and wall surfaces in the new space. Provide an even surface of uniform finish, color, texture, and appearance. Remove in-place floor and wall coverings and replace with new materials, if necessary, to achieve uniform color and appearance.
    - a. Where patching occurs in a painted surface, apply primer and intermediate paint coats over the patch and apply final paint coat over entire unbroken surface containing the patch. Provide additional coats until patch blends with adjacent surfaces.
  4. Ceilings: Patch, repair, or re-hang in-place ceilings as necessary to provide an even-plane surface of uniform appearance.
- D. Cleaning: Clean areas and spaces where cutting and patching are performed. Completely remove paint, mortar, oils, putty, and similar materials.

END OF SECTION 017329

## SECTION 017700 - CLOSEOUT PROCEDURES

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. Section includes administrative and procedural requirements for contract closeout, including, but not limited to, the following:
  - 1. Substantial Completion procedures.
  - 2. Final completion procedures.
  - 3. Warranties.
  - 4. Final cleaning.
  - 5. Repair of the Work.
- B. Related Requirements:
  - 1. Division 01 Section "Execution" for progress cleaning of Project site.
  - 2. Division 01 Section "Operation and Maintenance Data" for operation and maintenance manual requirements.
  - 3. Division 01 Section "Project Record Documents" for submitting record Drawings, record Specifications, and record Product Data.
  - 4. Divisions 02 through 33 Sections for specific closeout and special cleaning requirements for the Work in those Sections.

#### 1.3 ACTION SUBMITTALS

- A. Product Data: For cleaning agents.
- B. Contractor's List of Incomplete Items: Initial submittal at Substantial Completion.
- C. Certified List of Incomplete Items: Final submittal at Final Completion.

#### 1.4 CLOSEOUT SUBMITTALS

- A. Certificates of Release: From authorities having jurisdiction.
- B. Certificate of Insurance: For continuing coverage.
- C. Field Report: For pest control inspection.

## 1.5 MAINTENANCE MATERIAL SUBMITTALS

- A. Schedule of Maintenance Material Items: For maintenance material submittal items specified in other Sections.

## 1.6 SUBSTANTIAL COMPLETION PROCEDURES

- A. Contractor's List of Incomplete Items: Prepare and submit a list of items to be completed and corrected (Contractor's punch list), indicating the value of each item on the list and reasons why the Work is incomplete.

- B. Submittals Prior to Substantial Completion: Complete the following a minimum of 10 days prior to requesting inspection for determining date of Substantial Completion. List items below that are incomplete at time of request.

1. Certificates of Release: Obtain and submit releases from authorities having jurisdiction permitting Owner unrestricted use of the Work and access to services and utilities. Include occupancy permits, operating certificates, and similar releases.
2. Submit closeout submittals specified in other Division 01 Sections, including project record documents, operation and maintenance manuals, final completion construction photographic documentation, damage or settlement surveys, property surveys, and similar final record information.
3. Submit closeout submittals specified in individual Divisions 02 through 33 Sections, including specific warranties, workmanship bonds, maintenance service agreements, final certifications, and similar documents.
4. Submit maintenance material submittals specified in individual Divisions 02 through 33 Sections, including tools, spare parts, extra materials, and similar items, and deliver to location designated by Architect. Label with manufacturer's name and model number where applicable.

- a. Schedule of Maintenance Material Items: Prepare and submit schedule of maintenance material submittal items, including name and quantity of each item and name and number of related Specification Section. Obtain Architect's signature for receipt of submittals.

5. Submit test/adjust/balance records.
6. Submit sustainable design submittals required in Division 01 sustainable design requirements Section and in individual Division 02 through 33 Sections.
7. Submit changeover information related to Owner's occupancy, use, operation, and maintenance.

- C. Procedures Prior to Substantial Completion: Complete the following a minimum of 10 days prior to requesting inspection for determining date of Substantial Completion. List items below that are incomplete at time of request.

1. Advise Owner of pending insurance changeover requirements.
2. Make final changeover of permanent locks and deliver keys to Owner. Advise Owner's personnel of changeover in security provisions.
3. Complete startup and testing of systems and equipment.
4. Perform preventive maintenance on equipment used prior to Substantial Completion.

5. Instruct Owner's personnel in operation, adjustment, and maintenance of products, equipment, and systems. Submit demonstration and training video recordings specified in Division 01 Section "Demonstration and Training."
  6. Advise Owner of changeover in heat and other utilities.
  7. Participate with Owner in conducting inspection and walkthrough with local emergency responders.
  8. Terminate and remove temporary facilities from Project site, along with mockups, construction tools, and similar elements.
  9. Complete final cleaning requirements, including touchup painting.
  10. Touch up and otherwise repair and restore marred exposed finishes to eliminate visual defects.
- D. Inspection: Submit a written request for inspection to determine Substantial Completion a minimum of 10 days prior to date the work will be completed and ready for final inspection and tests. On receipt of request, Architect will either proceed with inspection or notify Contractor of unfulfilled requirements. Architect will prepare the Certificate of Substantial Completion after inspection or will notify Contractor of items, either on Contractor's list or additional items identified by Architect, that must be completed or corrected before certificate will be issued.
1. Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.
  2. Results of completed inspection will form the basis of requirements for final completion.

#### 1.7 FINAL COMPLETION PROCEDURES

- A. Submittals Prior to Final Completion: Before requesting final inspection for determining final completion, complete the following:
1. Submit a final Application for Payment according to Division 01 Section "Payment Procedures."
  2. Certified List of Incomplete Items: Submit certified copy of Architect's Substantial Completion inspection list of items to be completed or corrected (punch list), endorsed and dated by Architect. Certified copy of the list shall state that each item has been completed or otherwise resolved for acceptance.
  3. Certificate of Insurance: Submit evidence of final, continuing insurance coverage complying with insurance requirements.
  4. Submit pest-control final inspection report.
- B. Inspection: Submit a written request for final inspection to determine acceptance a minimum of 10 days prior to date the work will be completed and ready for final inspection and tests. On receipt of request, Architect will either proceed with inspection or notify Contractor of unfulfilled requirements. Architect will prepare a final Certificate for Payment after inspection or will notify Contractor of construction that must be completed or corrected before certificate will be issued.
1. Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.

## 1.8 LIST OF INCOMPLETE ITEMS (PUNCH LIST)

- A. Organization of List: Include name and identification of each space and area affected by construction operations for incomplete items and items needing correction including, if necessary, areas disturbed by Contractor that are outside the limits of construction.
1. Organize list of spaces in sequential order, starting with exterior areas first.
  2. Organize items applying to each space by major element, including categories for ceiling, individual walls, floors, equipment, and building systems.
  3. Include the following information at the top of each page:
    - a. Project name.
    - b. Date.
    - c. Name of Architect.
    - d. Name of Contractor.
    - e. Page number.
  4. Submit list of incomplete items in the following format:
    - a. MS Excel electronic file. Architect will return annotated file.

## 1.9 SUBMITTAL OF PROJECT WARRANTIES

- A. Time of Submittal: Submit written warranties on request of Architect for designated portions of the Work where commencement of warranties other than date of Substantial Completion is indicated, or when delay in submittal of warranties might limit Owner's rights under warranty.
- B. Partial Occupancy: Submit properly executed warranties within 15 days of completion of designated portions of the Work that are completed and occupied or used by Owner during construction period by separate agreement with Contractor.
- C. Organize warranty documents into an orderly sequence based on the table of contents of Project Manual.
1. Bind warranties and bonds in heavy-duty, three-ring, vinyl-covered, loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive 8-1/2-by-11-inch paper.
  2. Provide heavy paper dividers with plastic-covered tabs for each separate warranty. Mark tab to identify the product or installation. Provide a typed description of the product or installation, including the name of the product and the name, address, and telephone number of Installer.
  3. Identify each binder on the front and spine with the typed or printed title "WARRANTIES," Project name, and name of Contractor.
  4. Warranty Electronic File: Scan warranties and bonds and assemble complete warranty and bond submittal package into a single indexed electronic PDF file with links enabling navigation to each item. Provide bookmarked table of contents at beginning of document.
- D. Provide additional copies of each warranty to include in operation and maintenance manuals.

## PART 2 - PRODUCTS

### 2.1 MATERIALS

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

## PART 3 - EXECUTION

### 3.1 FINAL CLEANING

- A. General: Perform final cleaning. Conduct cleaning and waste-removal operations to comply with local laws and ordinances and Federal and local environmental and antipollution regulations.
- B. Cleaning: Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit to condition expected in an average commercial building cleaning and maintenance program. Comply with manufacturer's written instructions.
  - 1. Complete the following cleaning operations before requesting inspection for certification of Substantial Completion for entire Project or for a designated portion of Project:
    - a. Clean Project site, yard, and grounds, in areas disturbed by construction activities, including landscape development areas, of rubbish, waste material, litter, and other foreign substances.
    - b. Sweep paved areas broom clean. Remove petrochemical spills, stains, and other foreign deposits.
    - c. Rake grounds that are neither planted nor paved to a smooth, even-textured surface.
    - d. Remove tools, construction equipment, machinery, and surplus material from Project site.
    - e. Remove snow and ice to provide safe access to building.
    - f. Clean exposed exterior and interior hard-surfaced finishes to a dirt-free condition, free of stains, films, and similar foreign substances. Avoid disturbing natural weathering of exterior surfaces. Restore reflective surfaces to their original condition.
    - g. Remove debris and surface dust from limited access spaces, including roofs, plenums, shafts, trenches, equipment vaults, manholes, attics, and similar spaces.
    - h. Sweep concrete floors broom clean in unoccupied spaces.
    - i. Vacuum carpet and similar soft surfaces, removing debris and excess nap; clean according to manufacturer's recommendations if visible soil or stains remain.
    - j. Clean transparent materials, including mirrors and glass in doors and windows. Remove glazing compounds and other noticeable, vision-obscuring materials. Polish mirrors and glass, taking care not to scratch surfaces.
    - k. Remove labels that are not permanent.

- l. Wipe surfaces of mechanical and electrical equipment, and similar equipment. Remove excess lubrication, paint and mortar droppings, and other foreign substances.
  - m. Clean plumbing fixtures to a sanitary condition, free of stains, including stains resulting from water exposure.
  - n. Replace disposable air filters and clean permanent air filters. Clean exposed surfaces of diffusers, registers, and grills.
  - o. Clean ducts, blowers, and coils if units were operated without filters during construction or that display contamination with particulate matter on inspection.
    - 1) Clean HVAC system in compliance with NADCA Standard 1992-01. Provide written report on completion of cleaning.
  - p. Clean light fixtures, lamps, globes, and reflectors to function with full efficiency.
  - q. Leave Project clean and ready for occupancy.
- C. Construction Waste Disposal: Comply with waste disposal requirements in Division 01 Section "Temporary Facilities and Controls."

### 3.2 REPAIR OF THE WORK

- A. Complete repair and restoration operations before requesting inspection for determination of Substantial Completion.
- B. Repair or remove and replace defective construction. Repairing includes replacing defective parts, refinishing damaged surfaces, touching up with matching materials, and properly adjusting operating equipment. Where damaged or worn items cannot be repaired or restored, provide replacements. Remove and replace operating components that cannot be repaired. Restore damaged construction and permanent facilities used during construction to specified condition.
  - 1. Remove and replace chipped, scratched, and broken glass, reflective surfaces, and other damaged transparent materials.
  - 2. Touch up and otherwise repair and restore marred or exposed finishes and surfaces. Replace finishes and surfaces that already show evidence of repair or restoration.
    - a. Do not paint over "UL" and other required labels and identification, including mechanical and electrical nameplates. Remove paint applied to required labels and identification.
  - 3. Replace parts subject to operating conditions during construction that may impede operation or reduce longevity.
  - 4. Replace burned-out bulbs, bulbs noticeably dimmed by hours of use, and defective and noisy starters in fluorescent and mercury vapor fixtures to comply with requirements for new fixtures.

END OF SECTION 017700

## SECTION 017823 - OPERATION AND MAINTENANCE DATA

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. Section includes administrative and procedural requirements for preparing operation and maintenance manuals, including the following:
  - 1. Operation and maintenance documentation directory.
  - 2. Emergency manuals.
  - 3. Operation manuals for systems, subsystems, and equipment.
  - 4. Product maintenance manuals.
  - 5. Systems and equipment maintenance manuals.
- B. Related Requirements:
  - 1. Division 01 Section "Submittal Procedures" for submitting copies of submittals for operation and maintenance manuals.
  - 2. Divisions 02 through 33 Sections for specific operation and maintenance manual requirements for the Work in those Sections.

#### 1.3 DEFINITIONS

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

#### 1.4 CLOSEOUT SUBMITTALS

- A. Manual Content: Operations and maintenance manual content is specified in individual Specification Sections to be reviewed at the time of Section submittals. Submit reviewed manual content formatted and organized as required by this Section.
  - 1. Architect will comment on whether content of operations and maintenance submittals are acceptable.
  - 2. Where applicable, clarify and update reviewed manual content to correspond to revisions and field conditions.
- B. Format: Submit operations and maintenance manuals in the following format:

1. Three paper copies. Include a complete operation and maintenance directory. Enclose title pages and directories in clear plastic sleeves.

## PART 2 - PRODUCTS

### 2.1 OPERATION AND MAINTENANCE DOCUMENTATION DIRECTORY

- A. Directory: Prepare a single, comprehensive directory of emergency, operation, and maintenance data and materials, listing items and their location to facilitate ready access to desired information. Include a section in the directory for each of the following:
  1. List of documents.
  2. List of systems.
  3. List of equipment.
  4. Table of contents.
- B. List of Systems and Subsystems: List systems alphabetically. Include references to operation and maintenance manuals that contain information about each system.
- C. List of Equipment: List equipment for each system, organized alphabetically by system. For pieces of equipment not part of system, list alphabetically in separate list.
- D. Tables of Contents: Include a table of contents for each emergency, operation, and maintenance manual.
- E. Identification: In the documentation directory and in each operation and maintenance manual, identify each system, subsystem, and piece of equipment with same designation used in the Contract Documents. If no designation exists, assign a designation according to ASHRAE Guideline 4, "Preparation of Operating and Maintenance Documentation for Building Systems."

### 2.2 REQUIREMENTS FOR EMERGENCY, OPERATION, AND MAINTENANCE MANUALS

- A. Organization: Unless otherwise indicated, organize each manual into a separate section for each system and subsystem, and a separate section for each piece of equipment not part of a system. Each manual shall contain the following materials, in the order listed:
  1. Title page.
  2. Table of contents.
  3. Manual contents.
- B. Title Page: Include the following information:
  1. Subject matter included in manual.
  2. Name and address of Project.
  3. Name and address of Owner.
  4. Date of submittal.
  5. Name and contact information for Contractor.
  6. Name and contact information for Construction Manager.

7. Name and contact information for Architect.
  8. Name and contact information for Commissioning Authority.
  9. Names and contact information for major consultants to the Architect that designed the systems contained in the manuals.
  10. Cross-reference to related systems in other operation and maintenance manuals.
- C. Table of Contents: List each product included in manual, identified by product name, indexed to the content of the volume, and cross-referenced to Specification Section number in Project Manual.
1. If operation or maintenance documentation requires more than one volume to accommodate data, include comprehensive table of contents for all volumes in each volume of the set.
- D. Manual Contents: Organize into sets of manageable size. Arrange contents alphabetically by system, subsystem, and equipment. If possible, assemble instructions for subsystems, equipment, and components of one system into a single binder.
- E. Manuals, Electronic Files: Submit manuals in the form of a multiple file composite electronic PDF file for each manual type required.
1. Electronic Files: Use electronic files prepared by manufacturer where available. Where scanning of paper documents is required, configure scanned file for minimum readable file size.
  2. File Names and Bookmarks: Enable bookmarking of individual documents based on file names. Name document files to correspond to system, subsystem, and equipment names used in manual directory and table of contents. Group documents for each system and subsystem into individual composite bookmarked files, then create composite manual, so that resulting bookmarks reflect the system, subsystem, and equipment names in a readily navigated file tree. Configure electronic manual to display bookmark panel on opening file.
- F. Manuals, Paper Copy: Submit manuals in the form of hard copy, bound and labeled volumes.
1. Binders: Heavy-duty, three-ring, vinyl-covered, loose-leaf binders, in thickness necessary to accommodate contents, sized to hold 8-1/2-by-11-inch paper; with clear plastic sleeve on spine to hold label describing contents and with pockets inside covers to hold folded oversize sheets.
    - a. If two or more binders are necessary to accommodate data of a system, organize data in each binder into groupings by subsystem and related components. Cross-reference other binders if necessary to provide essential information for proper operation or maintenance of equipment or system.
    - b. Identify each binder on front and spine, with printed title "OPERATION AND MAINTENANCE MANUAL," Project title or name, and subject matter of contents, and indicate Specification Section number on bottom of spine. Indicate volume number for multiple-volume sets.
  2. Dividers: Heavy-paper dividers with plastic-covered tabs for each section of the manual. Mark each tab to indicate contents. Include typed list of products and major components

of equipment included in the section on each divider, cross-referenced to Specification Section number and title of Project Manual.

3. Protective Plastic Sleeves: Transparent plastic sleeves designed to enclose diagnostic software storage media for computerized electronic equipment.
4. Supplementary Text: Prepared on 8-1/2-by-11-inch white bond paper.
5. Drawings: Attach reinforced, punched binder tabs on drawings and bind with text.
  - a. If oversize drawings are necessary, fold drawings to same size as text pages and use as foldouts.
  - b. If drawings are too large to be used as foldouts, fold and place drawings in labeled envelopes and bind envelopes in rear of manual. At appropriate locations in manual, insert typewritten pages indicating drawing titles, descriptions of contents, and drawing locations.

## 2.3 EMERGENCY MANUALS

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

## 2.4 OPERATION MANUALS

- A. Content: In addition to requirements in this Section, include operation data required in individual Specification Sections and the following information:
1. System, subsystem, and equipment descriptions. Use designations for systems and equipment indicated on Contract Documents.
  2. Performance and design criteria if Contractor has delegated design responsibility.
  3. Operating standards.
  4. Operating procedures.
  5. Operating logs.
  6. Wiring diagrams.
  7. Control diagrams.
  8. Piped system diagrams.
  9. Precautions against improper use.
  10. License requirements including inspection and renewal dates.
- B. Descriptions: Include the following:
1. Product name and model number. Use designations for products indicated on Contract Documents.
  2. Manufacturer's name.
  3. Equipment identification with serial number of each component.
  4. Equipment function.
  5. Operating characteristics.
  6. Limiting conditions.
  7. Performance curves.
  8. Engineering data and tests.
  9. Complete nomenclature and number of replacement parts.
- C. Operating Procedures: Include the following, as applicable:
1. Startup procedures.
  2. Equipment or system break-in procedures.
  3. Routine and normal operating instructions.
  4. Regulation and control procedures.
  5. Instructions on stopping.
  6. Normal shutdown instructions.
  7. Seasonal and weekend operating instructions.
  8. Required sequences for electric or electronic systems.
  9. Special operating instructions and procedures.
- D. Systems and Equipment Controls: Describe the sequence of operation, and diagram controls as installed.
- E. Piped Systems: Diagram piping as installed, and identify color-coding where required for identification.

## 2.5 PRODUCT MAINTENANCE MANUALS

- A. Content: Organize manual into a separate section for each product, material, and finish. Include source information, product information, maintenance procedures, repair materials and sources, and warranties and bonds, as described below.
- B. Source Information: List each product included in manual, identified by product name and arranged to match manual's table of contents. For each product, list name, address, and telephone number of Installer or supplier and maintenance service agent, and cross-reference Specification Section number and title in Project Manual and drawing or schedule designation or identifier where applicable.
- C. Product Information: Include the following, as applicable:
  - 1. Product name and model number.
  - 2. Manufacturer's name.
  - 3. Color, pattern, and texture.
  - 4. Material and chemical composition.
  - 5. Reordering information for specially manufactured products.
- D. Maintenance Procedures: Include manufacturer's written recommendations and the following:
  - 1. Inspection procedures.
  - 2. Types of cleaning agents to be used and methods of cleaning.
  - 3. List of cleaning agents and methods of cleaning detrimental to product.
  - 4. Schedule for routine cleaning and maintenance.
  - 5. Repair instructions.
- E. Repair Materials and Sources: Include lists of materials and local sources of materials and related services.
- F. Warranties and Bonds: Include copies of warranties and bonds and lists of circumstances and conditions that would affect validity of warranties or bonds.
  - 1. Include procedures to follow and required notifications for warranty claims.

## 2.6 SYSTEMS AND EQUIPMENT MAINTENANCE MANUALS

- A. Content: For each system, subsystem, and piece of equipment not part of a system, include source information, manufacturers' maintenance documentation, maintenance procedures, maintenance and service schedules, spare parts list and source information, maintenance service contracts, and warranty and bond information, as described below.
- B. Source Information: List each system, subsystem, and piece of equipment included in manual, identified by product name and arranged to match manual's table of contents. For each product, list name, address, and telephone number of Installer or supplier and maintenance service agent, and cross-reference Specification Section number and title in Project Manual and drawing or schedule designation or identifier where applicable.

- C. **Manufacturers' Maintenance Documentation:** Manufacturers' maintenance documentation including the following information for each component part or piece of equipment:
  - 1. Standard maintenance instructions and bulletins.
  - 2. Drawings, diagrams, and instructions required for maintenance, including disassembly and component removal, replacement, and assembly.
  - 3. Identification and nomenclature of parts and components.
  - 4. List of items recommended to be stocked as spare parts.
  
- D. **Maintenance Procedures:** Include the following information and items that detail essential maintenance procedures:
  - 1. Test and inspection instructions.
  - 2. Troubleshooting guide.
  - 3. Precautions against improper maintenance.
  - 4. Disassembly; component removal, repair, and replacement; and reassembly instructions.
  - 5. Aligning, adjusting, and checking instructions.
  - 6. Demonstration and training video recording, if available.
  
- E. **Maintenance and Service Schedules:** Include service and lubrication requirements, list of required lubricants for equipment, and separate schedules for preventive and routine maintenance and service with standard time allotment.
  - 1. **Scheduled Maintenance and Service:** Tabulate actions for daily, weekly, monthly, quarterly, semiannual, and annual frequencies.
  - 2. **Maintenance and Service Record:** Include manufacturers' forms for recording maintenance.
  
- F. **Spare Parts List and Source Information:** Include lists of replacement and repair parts, with parts identified and cross-referenced to manufacturers' maintenance documentation and local sources of maintenance materials and related services.
  
- G. **Maintenance Service Contracts:** Include copies of maintenance agreements with name and telephone number of service agent.
  
- H. **Warranties and Bonds:** Include copies of warranties and bonds and lists of circumstances and conditions that would affect validity of warranties or bonds.
  - 1. Include procedures to follow and required notifications for warranty claims.

## PART 3 - EXECUTION

### 3.1 MANUAL PREPARATION

- A. **Operation and Maintenance Documentation Directory:** Prepare a separate manual that provides an organized reference to emergency, operation, and maintenance manuals.

- B. Emergency Manual: Assemble a complete set of emergency information indicating procedures for use by emergency personnel and by Owner's operating personnel for types of emergencies indicated.
- C. Product Maintenance Manual: Assemble a complete set of maintenance data indicating care and maintenance of each product, material, and finish incorporated into the Work.
- D. Operation and Maintenance Manuals: Assemble a complete set of operation and maintenance data indicating operation and maintenance of each system, subsystem, and piece of equipment not part of a system.
  - 1. Engage a factory-authorized service representative to assemble and prepare information for each system, subsystem, and piece of equipment not part of a system.
  - 2. Prepare a separate manual for each system and subsystem, in the form of an instructional manual for use by Owner's operating personnel.
- E. Manufacturers' Data: Where manuals contain manufacturers' standard printed data, include only sheets pertinent to product or component installed. Mark each sheet to identify each product or component incorporated into the Work. If data include more than one item in a tabular format, identify each item using appropriate references from the Contract Documents. Identify data applicable to the Work and delete references to information not applicable.
  - 1. Prepare supplementary text if manufacturers' standard printed data are not available and where the information is necessary for proper operation and maintenance of equipment or systems.
- F. Drawings: Prepare drawings supplementing manufacturers' printed data to illustrate the relationship of component parts of equipment and systems and to illustrate control sequence and flow diagrams. Coordinate these drawings with information contained in record Drawings to ensure correct illustration of completed installation.
  - 1. Do not use original project record documents as part of operation and maintenance manuals.
  - 2. Comply with requirements of newly prepared record Drawings in Division 01 Section "Project Record Documents."
- G. Comply with Division 01 Section "Closeout Procedures" for schedule for submitting operation and maintenance documentation.

END OF SECTION 017823

## SECTION 070150.19 - PREPARATION FOR REROOFING

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. Section Includes:

- 1. Full tear-off of roof areas indicated.
- 2. Removal of base flashings.

- B. Related Requirements:

- 1. Section 011000 "Summary" for use of the premises and phasing requirements.
- 2. Section 015000 "Temporary Facilities and Controls" for temporary construction and environmental-protection measures for reroofing preparation.

#### 1.3 DEFINITIONS

- A. Roofing Terminology: Definitions in ASTM D 1079 and glossary of NRCA's "The NRCA Roofing and Waterproofing Manual" apply to work of this Section.
- B. Roof Re-Cover Preparation: Existing roofing system is to remain and be prepared for new roof installed over it.
- C. Full Roof Tear-Off: Removal of existing roofing system from deck.
- D. Partial Roof Tear-Off: Removal of selected components and accessories from existing roofing system.

#### 1.4 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. Shop Drawings: Include plans, sections, and details.

#### 1.5 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For Installer.
  - 1. Include certificate that Installer is approved by warrantor of existing roofing system.

- B. Photographs or Videotape: Show existing conditions of adjoining construction and site improvements, including exterior and interior finish surfaces, that might be misconstrued as having been damaged by reroofing operations. Submit before Work begins.

## 1.6 QUALITY ASSURANCE

- A. Regulatory Requirements: Comply with governing EPA notification regulations before beginning roofing removal. Comply with hauling and disposal regulations of authorities having jurisdiction.

## 1.7 FIELD CONDITIONS

- A. Existing Roofing System: Single ply membranes and asphalt shingles.
- B. Protect building to be reroofed, adjacent buildings, walkways, site improvements, exterior plantings, and landscaping from damage or soiling from reroofing operations.
- C. Maintain access to existing walkways, corridors, and other adjacent occupied or used facilities.
- D. Weather Limitations: Proceed with reroofing preparation only when existing and forecasted weather conditions permit Work to proceed without water entering existing roofing system or building.
  - 1. Remove only as much roofing in one day as can be made watertight in the same day.
- E. Hazardous Materials: It is not expected that hazardous materials, such as asbestos-containing materials, will be encountered in the Work.
  - 1. Hazardous materials will be removed by Owner before start of the Work. Existing roof will be left no less watertight than before removal.
  - 2. 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.

## PART 2 - PRODUCTS –(NOT USED)

## PART 3 - EXECUTION

### 3.1 PREPARATION

- A. Shut off rooftop utilities and service piping before beginning the Work.
- B. Coordinate with Owner to shut down air-intake equipment in the vicinity of the Work. Cover air-intake louvers before proceeding with reroofing work that could affect indoor air quality or activate smoke detectors in the ductwork.
- C. During removal operations, have sufficient and suitable materials on-site to facilitate rapid installation of temporary protection in the event of unexpected rain.

- D. Maintain roof drainage in functioning condition to ensure roof drainage at end of each workday. Prevent debris from entering or blocking roof gutters and downspouts.

### 3.2 ROOF TEAR-OFF

- A. General: Notify Owner each day of extent of roof tear-off proposed for that day and obtain authorization to proceed.
- B. Full Roof Tear-Off: Where indicated, remove existing roofing and other roofing system components down to the deck.
  - 1. Remove asphalt shingles and underlayment down to existing wood roof decking (two layers of shingles).
  - 2. Remove all metal flashings in areas to receive new flashing and shingles.
  - 3. Remove fasteners from deck.

### 3.3 DECK PREPARATION

- A. Inspect deck after tear-off of roofing system.
- B. If broken or loose fasteners that secure deck panels to one another or to structure are observed, or if deck appears or feels inadequately attached, immediately notify Architect. Do not proceed with installation until directed by Architect.
- C. If deck surface is unsuitable for receiving new roofing or if structural integrity of deck is suspect, immediately notify Architect. Do not proceed with installation until directed by Architect.
- D. Replace roof decking as directed by Architect. Roof decking replacement will be paid for by adjusting the Contract Sum or by the use of the contingency allowance included in the Contract Documents.

### 3.4 BASE FLASHING REMOVAL

- A. Remove existing base flashings. Clean substrates of contaminants, such as asphalt, sheet materials, dirt, and debris.

### 3.5 DISPOSAL

- A. Collect demolished materials and place in containers. Promptly dispose of demolished materials. Do not allow demolished materials to accumulate on-site.
  - 1. Storage or sale of demolished items or materials on-site is not permitted.
- B. Transport and legally dispose of demolished materials off Owner's property.

END OF SECTION 070150.19



## SECTION 073113 - ASPHALT SHINGLES

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. Section Includes:
  - 1. Asphalt shingles.
  - 2. Underlayment.
  - 3. Metal flashing and trim.

#### 1.3 DEFINITION

- A. Roofing Terminology: See ASTM D 1079 and glossary of NRCA's "The NRCA Roofing and Waterproofing Manual" for definitions of terms related to roofing work in this Section.

#### 1.4 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. Samples: For each exposed product and for each color and texture specified.
  - 1. Asphalt Shingles: Full size.
  - 2. Ridge and Hip Cap Shingles: Full size.
  - 3. Exposed Valley Lining: 12 inches square.

#### 1.5 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For Installer.
- B. Product Test Reports: For each type of asphalt shingle and underlayment product indicated, for tests performed by manufacturer and witnessed by a qualified testing agency.
- C. Evaluation Reports: For synthetic underlayment from ICC-ES or other testing and inspecting agency acceptable to authorities having jurisdiction, indicating that product is suitable for intended use under applicable building codes.
- D. Sample Warranty: For manufacturer's warranty.

## 1.6 CLOSEOUT SUBMITTALS

- A. Maintenance Data: For asphalt shingles to include in maintenance manuals.

## 1.7 MAINTENANCE MATERIAL SUBMITTALS

- A. Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
  - 1. Asphalt Shingles: 100 sq. ft. of each type, in unbroken bundles.

## 1.8 QUALITY ASSURANCE

- A. Installer Qualifications: An authorized representative who is trained and approved by manufacturer.

## 1.9 DELIVERY, STORAGE, AND HANDLING

- A. Store roofing materials in a dry, well-ventilated location protected from weather, sunlight, and moisture according to manufacturer's written instructions.
- B. Store underlayment rolls on end on pallets or other raised surfaces. Do not double stack rolls.
- C. Protect unused roofing materials from weather, sunlight, and moisture when left overnight or when roofing work is not in progress.
- D. Handle, store, and place roofing materials in a manner to prevent damage to roof deck or structural supporting members.

## 1.10 FIELD CONDITIONS

- A. Environmental Limitations: Install self-adhering sheet underlayment within the range of ambient and substrate temperatures recommended in writing by manufacturer.

## 1.11 WARRANTY

- A. Manufacturer's Warranty: Manufacturer agrees to repair or replace asphalt shingles that fail within specified warranty period.
  - 1. Failures include, but are not limited to, the following:
    - a. Manufacturing defects.
  - 2. Material Warranty Period: 40 years from date of Substantial Completion, prorated, with first 20 years nonprorated.
  - 3. Wind-Speed Warranty Period: Asphalt shingles will resist blow-off or damage caused by wind speeds of up to 110 mph for 15 years from date of Substantial Completion.

4. Algae-Resistance Warranty Period: Asphalt shingles will not discolor for 20 years from date of Substantial Completion.
- B. Roofing Installer's Warranty: On warranty form at end of this Section, signed by Installer, in which Installer agrees to repair or replace components of asphalt-shingle roofing that fail in materials or workmanship within specified warranty period.
1. Warranty Period: Two years from date of Substantial Completion.

## PART 2 - PRODUCTS

### 2.1 GLASS-FIBER-REINFORCED ASPHALT SHINGLES

- A. Three-Tab-Strip, SBS-Modified Asphalt Shingles: ASTM D 3462/D 3462M, glass-fiber reinforced, mineral-granule surfaced, and self-sealing; with tabs regularly spaced and complying with UL 2218, Class 4.
1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:
    - a. GAF
    - b. CertainTeed Roofing Corporation.
  2. Strip Size: Manufacturer's standard
  3. Color and Blends: As selected by Architect from manufacturer's full range.
- B. Hip and Ridge Shingles: Manufacturer's standard units to match asphalt shingles.

### 2.2 UNDERLAYMENT MATERIALS

- A. Self-Adhering Sheet Underlayment, Polyethylene Faced: ASTM D 1970/D 1970M, minimum of 40-mil- thick, slip-resisting, polyethylene-film-reinforced top surface laminated to SBS-modified asphalt adhesive, with release backing; cold applied. Provide primer for adjoining concrete or masonry surfaces to receive underlayment.
1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:
    - a. Carlisle Coatings & Waterproofing Inc.
    - b. CertainTeed Roofing Corporation.
    - c. GCP Applied Technologies Inc. (formerly Grace Construction Products).
    - d. Owens Corning.

## 2.3 ACCESSORIES

- A. Asphalt Roofing Cement: ASTM D 4586, Type II, asbestos free.
- B. Roofing Nails: ASTM F 1667; aluminum, stainless-steel, copper, or hot-dip galvanized-steel wire shingle nails, minimum 0.120-inch- diameter, sharp-pointed, with a minimum 3/8-inch-diameter flat head and of sufficient length to penetrate 3/4 inch into solid wood decking.
  - 1. Shank: Barbed
  - 2. Where nails are in contact with metal flashing, use nails made from same metal as flashing.

## 2.4 METAL FLASHING AND TRIM

- A. General: Comply with requirements in Section 076200 "Sheet Metal Flashing and Trim."
  - 1. Sheet Metal: Minimum 16 oz. Copper
- B. Fabricate sheet metal flashing and trim to comply with recommendations in SMACNA's "Architectural Sheet Metal Manual" that apply to design, dimensions, metal, and other characteristics of the item.
  - 1. Apron Flashings: Fabricate with lower flange a minimum of 4 inches over and beyond each side of downslope asphalt shingles and 6 inches up the vertical surface.
  - 2. Step Flashings: Fabricate with a headlap of 2 inches and a minimum extension of 4 inches over the underlying asphalt shingle and up the vertical surface.
  - 3. Cricket or Backer Flashings: Fabricate with concealed flange extending a minimum of 18 inches beneath upslope asphalt shingles and 6 inches beyond each side of chimney and 6 inches above the roof plane.
  - 4. Open-Valley Flashings: Fabricate in lengths not exceeding 10 feet with 1-inch- high, inverted-V profile at center of valley and equal flange widths of 12 inches.
  - 5. Drip Edges: Fabricate in lengths not exceeding 10 feet with 2-inch roof-deck flange and 1-1/2-inch fascia flange with 3/8-inch drip at lower edge.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.
  - 1. Examine roof sheathing to verify that sheathing joints are supported by framing and blocking or metal clips and that installation is within flatness tolerances.
  - 2. Verify that substrate is sound, dry, smooth, clean, sloped for drainage, and completely anchored; and that provisions have been made for flashings and penetrations through asphalt shingles.
- B. Prepare written report, endorsed by Installer, listing conditions detrimental to performance of the Work.

- C. Proceed with installation only after unsatisfactory conditions have been corrected.

### 3.2 UNDERLAYMENT INSTALLATION

- A. General: Comply with underlayment manufacturer's written installation instructions applicable to products and applications indicated unless more stringent requirements apply.
- B. Self-Adhering Sheet Underlayment: Install, wrinkle free, on roof deck. Comply with low-temperature installation restrictions of underlayment manufacturer if applicable. Install lapped in direction that sheds water. Lap sides not less than 3-1/2 inches. Lap ends not less than 6 inches staggered 24 inches between courses. Roll laps with roller. Cover underlayment within seven days. Install on all surfaces to receive asphalt shingles.
- C. Metal-Flashed, Open-Valley Underlayment: Install two layers of minimum 36-inch- wide underlayment centered in valley. Stagger end laps between layers at least 72 inches. Lap ends of each layer at least 12 inches in direction to shed water, and seal with asphalt roofing cement. Fasten each layer to roof deck.
  - 1. Lap roof-deck underlayment over first layer of valley underlayment at least 6 inches.

### 3.3 METAL FLASHING INSTALLATION

- A. General: Install metal flashings and other sheet metal to comply with requirements in Section 076200 "Sheet Metal Flashing and Trim."
  - 1. Install metal flashings according to recommendations in ARMA's "Residential Asphalt Roofing Manual" and NRCA's "NRCA Guidelines for Asphalt Shingle Roof Systems."
- B. Apron Flashings: Extend lower flange over and beyond each side of downslope asphalt shingles and up the vertical surface.
- C. Step Flashings: Install with a headlap of 2 inches and extend over the underlying asphalt shingle and up the vertical surface. Fasten to roof deck only.
- D. Cricket or Backer Flashings: Install against the roof-penetrating element extending concealed flange beneath upslope asphalt shingles and beyond each side.
- E. Open-Valley Flashings: Install centered in valleys, lapping ends at least 8 inches in direction to shed water. Fasten upper end of each length to roof deck beneath overlap.
  - 1. Adhere 9-inch- wide strip of self-adhering sheet to metal flanges and to self-adhering sheet underlayment.
- F. Rake Drip Edges: Install rake drip-edge flashings over underlayment and fasten to roof deck.
- G. Eave Drip Edges: Install eave drip-edge flashings below underlayment and fasten to roof sheathing.
- H. Pipe Flashings: Form flashing around pipe penetrations and asphalt shingles. Fasten and seal to asphalt shingles as recommended by manufacturer.

- I. All flashing fasteners to match flashing materials.

### 3.4 ASPHALT-SHINGLE INSTALLATION

- A. General: Install asphalt shingles according to manufacturer's written instructions, recommendations in ARMA's "Residential Asphalt Roofing Manual," and recommendations in NRCA's "NRCA Guidelines for Asphalt Shingle Roof Systems."
- B. Install starter strip along lowest roof edge, consisting of an asphalt-shingle strip with tabs removed with self-sealing strip face up at roof edge.
  - 1. Extend asphalt shingles 1/2 inch over fasciae at eaves and rakes.
  - 2. Install starter strip along rake edge.
- C. Install first and remaining courses of asphalt shingles stair-stepping diagonally across roof deck with manufacturer's recommended offset pattern at succeeding courses, maintaining uniform exposure.
- D. Install asphalt shingles by single-strip column or racking method, maintaining uniform exposure. Install full-length first course followed by cut second course, repeating alternating pattern in succeeding courses.
- E. Fasten asphalt-shingle strips with roofing nails located according to manufacturer's written instructions.
  - 1. Where roof slope exceeds 21:12, seal asphalt shingles with asphalt roofing cement spots after fastening with additional roofing nails.
  - 2. When ambient temperature during installation is below 50 deg F seal asphalt shingles with asphalt roofing cement spots.
- F. Open Valleys: Cut and fit asphalt shingles at open valleys, trimming upper concealed corners of shingle strips. Maintain uniform width of exposed open valley from highest to lowest point.
  - 1. Set valley edge of asphalt shingles in a 3-inch- wide bed of asphalt roofing cement.
  - 2. Do not nail asphalt shingles to metal open-valley flashings.
- G. Hip and Ridge Shingles: Maintain same exposure of cap shingles as roofing shingle exposure. Lap cap shingles at ridges to shed water away from direction of prevailing winds. Fasten with roofing nails of sufficient length to penetrate sheathing.

END OF SECTION 073113

## SECTION 075556 - FLUID-APPLIED MEMBRANE ROOFING

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. Section includes reinforced and unreinforced, cold fluid-applied membrane roofing.

#### 1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. Shop Drawings: For roofing system. Include plans, elevations, sections, details, and attachments to other work.

#### 1.4 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For Installer
- B. Manufacturer Certificates: Signed by roofing manufacturer certifying that roofing system complies with requirements specified in "Performance Requirements" Article.
  - 1. Submit evidence of compliance with performance requirements.
- C. Product Test Reports: For components of roofing system, tests performed by manufacturer and witnessed by a qualified testing agency.
- D. Sample Warranties: For manufacturer's special warranties.

#### 1.5 CLOSEOUT SUBMITTALS

- A. Maintenance Data: For roofing system to include in maintenance manuals.

#### 1.6 QUALITY ASSURANCE

- A. Installer Qualifications: A qualified firm that is approved, authorized, or licensed by roofing system manufacturer to install manufacturer's product and that is eligible to receive manufacturer's special warranty.

## 1.7 DELIVERY, STORAGE, AND HANDLING

- A. Deliver roofing materials to Project site in original containers with seals unbroken and labeled with manufacturer's name, product brand name and type, date of manufacture, approval or listing agency markings, and directions for storing and mixing with other components.
- B. Handle and store roofing materials, and place equipment in a manner to avoid significant or permanent damage to deck or structural supporting members.
- C. Protect materials from physical damage and from deterioration by sunlight, moisture, soiling, and other sources. Store in a dry location. Comply with manufacturer's written instructions for handling, storing, and protecting during installation.

## 1.8 PROJECT CONDITIONS

- A. Environmental Limitations: Apply roofing within the range of ambient and substrate temperatures recommended by roofing system manufacturer. Do not apply roofing to a damp or wet substrate.
  - 1. Do not apply roofing in snow, rain, fog, or mist.
  - 2. Do not apply roofing when air temperature is below 42 degrees Fahrenheit.
  - 3. Contractor must complete a moisture scan of all roofs to receive fluid-applied membrane roofing. A copy of the moisture scan must be submitted to manufacturer as a requirement for warranty issuance.

## 1.9 WARRANTY

- A. Special Warranty: Manufacturer agrees to repair or replace components of roofing system that fail in materials or workmanship within specified warranty period.
  - 1. Warranty Period: 20 years from date of Substantial Completion, based on GAF Weather Stopper® Integrated System Limited Warranty.
    - a. Project must be registered with roofing manufacturer.

## PART 2 - PRODUCTS

### 2.1 MANUFACTURERS

- A. Source Limitations: Obtain roofing materials from single source from single manufacturer.

### 2.2 PERFORMANCE REQUIREMENTS

- A. General Performance: Installed roofing and base flashings shall withstand specified uplift pressures, thermally induced movement, and exposure to weather without failure due to defective manufacture, fabrication, installation, or other defects in construction. Roofing and base flashings shall remain watertight.

- B. Material Compatibility: Roofing materials shall be compatible with one another and adjacent materials under conditions of service and application required, as demonstrated by roofing manufacturer based on testing and field experience.

### 2.3 ROOFING MEMBRANE

- A. Water-based, acrylic, reflective, highly flexible liquid-applied membrane designed to protect and provide reflectivity to EPDM and other single-ply roofs.
  - 1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:
    - a. GAF – TOPCOAT EPDM Coating
      - 1) Application Rate: 1 gallon/100 sq. ft. per coat
      - 2) Application Method: Airless sprayer
      - 3) Application Temp: (surface): 42°-120°F
      - 4) Drying Time (75°F, 50% RH): Approximately 24 hours per coat Wet Mil Thickness: (1.0 Gallon/100SF) - 16 wet mils
      - 5) Dry Mil Thickness:(1.0 Gallon/100SF) - 8 dry mils
      - 6) Total Solids (by weight): 65% ± 2%
      - 7) Total Solids (by volume): 52% ± 2%
      - 8) Specific Gravity: 1.32 ± 0.1
      - 9) Weight per Gallon: 11.0 ± 0.5 lbs
      - 10) Viscosity (75°F): 15,000 ± 2,000 cps
      - 11) Tensile Strength: 200 psi
      - 12) Clean-Up: Water before curing

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements and other conditions affecting performance of the Work:
  - 1. Verify that roof openings and penetrations are in place, curbs are set and braced, and roof drain bodies are securely clamped in place.
  - 2. Verify that wood cants, blocking, curbs, and nailers are securely anchored to roof deck at penetrations and terminations.
  - 3. Verify that concrete substrate is visibly dry and free of moisture. Test for capillary moisture by plastic sheet method according to ASTM D 4263.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

### 3.2 PREPARATION

- A. Examine substrate to receive coating. Do not proceed with new roofing until adhesion has been verified by test patches, other preparatory work has been completed, and unsatisfactory conditions have been corrected in a manner acceptable to manufacturer.

- B. Treatment of Damaged/Deteriorated EPDM: Any areas where EPDM has torn, cracked, and/or buckled must be repaired using similar products. Any wet insulation must be replaced as part of the roofing repair.
- C. Substrate Cleaning: Apply TOPCOAT® EPDM System Cleaner at a rate of 1 gal per 500 sq. ft. Cleaner should be applied with industrial garden pump sprayer. The roof substrate must then be carefully pressure-washed with water with an approximate working pressure of 2,000 psi (depending on condition of roof) to remove remaining dirt, dust, chalking, loose materials, etc.  
  
Take care not to damage the roof surface or force water into the roof system. Use hot water and mild detergent to remove grease and/or oils from the roof substrate. If mildew or algae are present, use bleach to treat these areas, and then pressure-wash.
- D. Substrate must be clean, completely dry, and free of any debris before application of any primer and roof membrane.
- E. Mask off adjoining surfaces not receiving roofing to prevent spillage from affecting other construction.
- F. Prevent materials from entering and clogging roof drains and conductors and from spilling or migrating onto surfaces of other construction. Remove roof-drain plugs when no work is taking place or when rain is forecast.

### 3.3 ROOFING MEMBRANE APPLICATION

- A. All roof penetration areas, splits, drains, and scuppers must be treated with a 6" strip of Flashing Fabric embedded into FlexSeal. At flashings where there is changing of plane, the Flashing Fabric should be applied 3" up the vertical and 3" onto the horizontal. Feather the FlexSeal to the existing EPDM substrate and allow to dry at least 24 hours.
- B. All existing EPDM membrane seams and joints must be treated with a 6" wide area of Flashing Fabric and Flashing Grade.
- C. After at least 24 hours drying time, inspect preparatory/flashing work for problem areas (i.e., gaps, cracks, fishmouths, air pockets, etc.) to ensure that work is complete and satisfactory. Repair any deficiencies, as required.
- D. Membrane Application:
  1. Spray-apply base coat at a rate required by manufacturer, as primer coat. Allow at least 24 hours drying time and inspect the base/primer coat for defects, flaws, or gaps. Correct any unsatisfactory conditions prior to proceeding.
  2. Spray-apply finish coat (same color as base coat) of at a rate required by manufacturer. Finish coat should not be applied unless the base coat is clean, dry, and will provide proper adhesion.
  3. Allow at least 24 hours drying time prior to allowing foot traffic or inspection of the roof. After 24 hours have elapsed, inspect the final roof surface for flaws, gaps, insufficient thickness, etc., and repair any unsatisfactory conditions.
    - a. Specified membrane thicknesses are minimum 40 mils field and 75 mils on roof penetration details and problem seams.
  4. Cover all existing termination bars at all penetrations, terminations and edges.

### 3.4 FIELD QUALITY CONTROL

- A. Flood Testing: Flood test each roofing area for leaks, according to recommendations in ASTM D 5957, after completing roofing and flashing but before overlying construction is placed. Install temporary containment assemblies, plug or dam drains, and flood with potable water.
  - 1. Flood to an average depth of 2-1/2 inches with a minimum depth of 1 inch.
  - 2. Flood each area for 24 hours.
  - 3. After flood testing, repair leaks, repeat flood tests, and make further repairs until roofing and flashing installation are watertight.
- B. Final Roof Inspection: Arrange for roofing system manufacturer's technical personnel to inspect roofing installation on completion.
  - 1. Notify Architect and Owner 48 hours in advance of date and time of inspection.

### 3.5 PROTECTING AND CLEANING

- A. Protect roofing system from damage and wear during remainder of construction period. When remaining construction does not affect or endanger roofing, inspect roofing for deterioration and damage, describing its nature and extent in a written report, with copies to Architect and Owner.
- B. Correct deficiencies in or remove roofing system that does not comply with requirements, repair substrates, and repair or reinstall roofing system to a condition free of damage and deterioration at time of Substantial Completion and according to warranty requirements.
- C. Clean spillage and soiling from adjacent construction using cleaning agents and procedures recommended by manufacturer of affected construction.

END OF SECTION 075556



## SECTION 076200 - SHEET METAL FLASHING AND TRIM

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. Section Includes:
  - 1. Break formed sheet metal fabrications.
  - 2. Break formed sheet metal reglets with counterflashing.

#### 1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Shop Drawings: Include the following:
  - 1. Identify material, thickness, weight, and finish for each item and location in Project.
  - 2. Details for forming sheet metal flashing and trim, including profiles, shapes, seams, and dimensions, including fasteners, clips, cleats, and attachments to adjoining work.
  - 3. Details for joining, supporting, and securing sheet metal flashing and trim, including layout of fasteners, cleats, clips, and other attachments. Include pattern of seams.
  - 4. Details of termination points and assemblies, including fixed points.
  - 5. Details of special conditions.
  - 6. Details of connections to adjoining work.
- C. Samples for Initial Selection: Minimum 3-inch by 4-inch piece of actual metal used with selected color applied.

#### 1.4 QUALITY ASSURANCE

- A. Sheet Metal Flashing and Trim Standards: Comply with SMACNA's "Architectural Sheet Metal Manual." Conform to dimensions and profiles shown unless more stringent requirements are indicated.

#### 1.5 DELIVERY, STORAGE, AND HANDLING

- A. Deliver sheet metal flashing materials and fabrications undamaged. Protect sheet metal flashing and trim materials and fabrications during transportation and handling.

- B. Unload, store, and install sheet metal flashing materials and fabrications in a manner to prevent bending, warping, twisting, and surface damage.
- C. Stack materials on platforms or pallets, covered with suitable weathertight and ventilated covering. Do not store sheet metal flashing and trim materials in contact with other materials that might cause staining, denting, or other surface damage.

## 1.6 WARRANTY

- A. Special Warranty on Painted Finishes: Manufacturer's standard form in which manufacturer agrees to repair finish or replace manufactured roof specialties that show evidence of deterioration of factory-applied finishes within specified warranty period.
  - 1. Fluoropolymer Finish: Deterioration includes, but is not limited to, the following:
    - a. Color fading more than 5 Hunter units when tested according to ASTM D 2244.
    - b. Chalking in excess of a No. 8 rating when tested according to ASTM D 4214.
    - c. Cracking, checking, peeling, or failure of paint to adhere to bare metal.
  - 2. Finish Warranty Period: 20 years from date of Substantial Completion.

## PART 2 - PRODUCTS

### 2.1 PERFORMANCE REQUIREMENTS

- A. General: Sheet metal flashing and trim assemblies shall withstand wind loads, structural movement, thermally induced movement, and exposure to weather without failure due to defective manufacture, fabrication, installation, or other defects in construction. Completed sheet metal flashing and trim shall not rattle, leak, or loosen, and shall remain watertight.
- B. Sheet Metal Standard for Flashing and Trim: Comply with NRCA's "The NRCA Roofing Manual" and SMACNA's "Architectural Sheet Metal Manual" requirements for dimensions and profiles shown unless more stringent requirements are indicated.
- C. Sheet Metal Standard for Copper: Comply with CDA's "Copper in Architecture Handbook." Conform to dimensions and profiles shown unless more stringent requirements are indicated.
- 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. Base calculations on surface temperatures of materials due to both solar heat gain and nighttime-sky heat loss.
  - 1. Temperature Change: 120 deg F ambient; 180 deg F material surfaces.

## 2.2 SHEET METALS

- A. Prepainted, Zinc-Coated Steel Sheet: ASTM A 653/A 653M, G90 coating designation, structural quality, and prepainted by the coil-coating process to comply with ASTM A 755/A 755M.
  - 1. Steel Finish: Smooth.
  - 2. Exposed Coil-Coated Finish: AAMA 621. Two-coat fluoropolymer finish containing not less than 70 percent PVDF resin by weight in color coat. Prepare, pretreat, and apply coating to exposed metal surfaces to comply with coating and resin manufacturers' written instructions.
    - a. Colors: To be selected by Architect.
- B. Copper Sheet: ASTM B 370, cold-rolled copper sheet, H00 or H01 temper.
  - 1. Nonpatinated, Exposed, Lacquered Finish: Finish designations for copper alloys comply with system defined in NAAMM's "Metal Finishes Manual for Architectural and Metal Products."
    - a. Brushed Satin (Lacquered): M32-06x (Mechanical Finish: directionally textured, medium satin; with clear organic coating); coating of "Incralac," waterborne, methyl methacrylate copolymer lacquer with UV inhibitor, applied by air spray in two coats per manufacturer's written instructions to total thickness of 1 mil.

## 2.3 MISCELLANEOUS MATERIALS

- A. General: Provide materials and types of fasteners, solder, protective coatings, sealants, and other miscellaneous items as required for complete sheet metal flashing and trim installation and as recommended by manufacturer of primary sheet metal unless otherwise indicated.
- B. Fasteners: Wood screws, annular threaded nails, self-tapping screws, self-locking rivets and bolts, and other suitable fasteners designed to withstand design loads and recommended by manufacturer of primary sheet metal.
  - 1. General: Blind fasteners or self-drilling screws, gasketed, with hex-washer head.
    - a. Exposed Fasteners: Heads matching color of sheet metal using plastic caps or factory-applied coating. Provide metal-backed EPDM or PVC sealing washers under heads of exposed fasteners bearing on weather side of metal.
    - b. Blind Fasteners: High-strength aluminum or stainless-steel rivets suitable for metal being fastened.
    - c. Spikes and Ferrules: Same material as gutter; with spike with ferrule matching internal gutter width.
  - 2. Fasteners for Copper Sheet: Copper, hardware bronze or passivated Series 300 stainless steel.
- C. Solder:

1. For Copper: ASTM B 32, Grade Sn50, 50 percent tin and 50 percent lead with maximum lead content of 0.2 percent.
- D. Sealant Tape: Pressure-sensitive, 100 percent solids, polyisobutylene compound sealant tape with release-paper backing. Provide permanently elastic, nonsag, nontoxic, nonstaining tape 1/2 inch wide and 1/8 inch thick.
- E. Butyl Sealant: ASTM C 1311, single-component, solvent-release butyl rubber sealant; polyisobutylene plasticized; heavy bodied for hooked-type expansion joints with limited movement.
- F. Epoxy Seam Sealer: Two-part, noncorrosive, aluminum seam-cementing compound, recommended by aluminum manufacturer for exterior nonmoving joints, including riveted joints.
- G. Bituminous Coating: Cold-applied asphalt emulsion according to ASTM D 1187.
- H. Asphalt Roofing Cement: ASTM D 4586, asbestos free, of consistency required for application

#### 2.4 FABRICATION, GENERAL

- A. General: Custom fabricate sheet metal flashing and trim to comply with recommendations in SMACNA's "Architectural Sheet Metal Manual" that apply to design, dimensions, metal, and other characteristics of item indicated. Shop fabricate items where practicable. Obtain field measurements for accurate fit before shop fabrication.
- B. Fabricate sheet metal flashing and trim without excessive oil canning, buckling, and tool marks and true to line and levels indicated, with exposed edges folded back to form hems.
- C. Sealed Joints: Form nonexpansion but movable joints in metal to accommodate elastomeric sealant to comply with SMACNA recommendations.
- D. Conceal fasteners and expansion provisions on exposed-to-view sheet metal flashing and trim, unless otherwise indicated.

#### 2.5 LOW-SLOPE ROOF SHEET METAL FABRICATIONS

- A. General: Fabricate in minimum 96-inch long, but not exceeding 10-foot long, sections. Fabricate vertical faces with bottom edge formed outward 1/4 inch to form drip and hemmed 1/2 inch on underside. Furnish with 6-inch wide, joint cover plates. Shop fabricate interior and exterior corners.
- B. Roof Edge Flashing (Gravel Stop, Fascia Cap): Prepainted, zinc-coated steel sheet, 0.0276 inch thick, unless indicated otherwise.
- C. Joint Cover Plates: Fabricate from same material intended for roof edge flashings and copings.
- D. Cleats: Fabricate from galvanized steel sheet, 0.0336 inch thick.

## 2.6 MISCELLANEOUS SHEET METAL FABRICATIONS

- A. Reglets and Counterflashing: Units of type, material, and profile required, formed to provide secure interlocking of separate reglet and counterflashing pieces.
  - 1. Material: Prepainted, zinc-coated steel sheet, 0.0276 inch thick.
  - 2. Type: Surface-mounted with slotted holes for fastening to substrate, with neoprene or other suitable weatherproofing washers, and with channel for sealant at top edge.
  - 3. Type: For masonry application, with offset top flange for embedment in masonry mortar joint.
- B. Counterflashings: Manufactured units in lengths not exceeding 10 feet designed to fit into reglets and compress against base flashings with joints lapped.
  - 1. Material and color to match reglets.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine substrates, areas, and conditions to verify actual locations, dimensions and other conditions affecting performance of work.
  - 1. Verify that substrate is sound, dry, smooth, clean, sloped for drainage, and securely anchored.
  - 2. Proceed with installation only after unsatisfactory conditions have been corrected.

### 3.2 INSTALLATION, GENERAL

- A. Install sheet metal work to comply with SMACNA's "Architectural Sheet Metal Manual."
- B. Anchor sheet metal flashing and trim and other components of the Work securely in place, with provisions for thermal and structural movement. Use fasteners, sealants, and other miscellaneous items as required to complete sheet metal flashing and trim system.
  - 1. Install sheet metal flashing and trim true to line and levels indicated. Provide uniform, neat seams.
  - 2. Install exposed sheet metal flashing and trim without excessive oil canning, buckling, and tool marks.
  - 3. Torch cutting of sheet metal flashing and trim is not permitted.
- C. Expansion Provisions: Provide for thermal expansion of exposed flashing and trim. Space movement joints at a maximum of 10 feet with no joints allowed within 24 inches of corner or intersection.
- D. Fasteners: 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.

- E. Conceal fasteners and expansion provisions where possible in exposed work and locate to minimize possibility of leakage. Cover and seal fasteners and anchors as required for a tight installation.

### 3.3 ROOF FLASHING INSTALLATION

- A. General: Install sheet metal flashing and trim to comply with performance requirements and SMACNA's "Architectural Sheet Metal Manual." Provide concealed fasteners where possible, set units true to line, and level as indicated. Install work with laps, joints, and seams that will be permanently watertight and weather resistant.
- B. Install sheet metal flashing and trim to fit substrates and to result in watertight performance. Verify shapes and dimensions of surfaces to be covered before fabricating sheet metal.
- C. Install flashing with joints and seams that will be permanently watertight and weather resistant.
  - 1. Joint Style: 1/2 inch gap between ends of roof edge flashing, covered with 2-inch wide strip of Eternabond tape. Install specified sealant on both sides of tape. Conceal joint with exposed joint cover plates set in the beads sealant. Do not install sealant- at temperatures below 40 deg F.
- D. Roof Edge Flashing: Interlock bottom edge of roof edge flashing with continuous cleat anchored to substrate at staggered 3-inch centers.

### 3.4 WALL FLASHING INSTALLATION

- A. General: Install sheet metal wall flashing to intercept and exclude penetrating moisture . Coordinate installation of wall flashing with installation of masonry and roofing membrane system.
- B. Counterflashings: Coordinate installation of counterflashings with installation of base flashings. Insert counterflashings in reglets and fit tightly to base flashings. Extend counterflashings 4 inches over base flashings. Lap counterflashing joints a minimum of 4 inches and bed with elastomeric sealant.

### 3.5 CLEANING AND PROTECTION

- A. Clean off excess sealants.
- B. Remove temporary protective coverings and strippable films as sheet metal flashing and trim are installed. On completion of installation, clean finished surfaces, including removing unused fasteners, metal filings, pop rivet stems, and pieces of flashing. Maintain in a clean condition during construction.
- C. Replace sheet metal flashing and trim that have been damaged or that have deteriorated beyond successful repair by finish touchup or similar minor repair procedures.

END OF SECTION 076200

## SECTION 079200 - JOINT SEALANTS

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. Section Includes:

- 1. Silicone joint sealants.
- 2. Urethane joint sealants.

- B. Related Sections:

- 1. Division 04 Section "Unit Masonry" for masonry control and expansion joint fillers and gaskets.
- 2. Division 08 Section "Glazing" for glazing sealants.
- 3. Division 09 Section "Gypsum Board" for sealing perimeter joints.
- 4. Division 09 Section "Tiling" for sealing tile joints.

#### 1.3 PRECONSTRUCTION TESTING

- A. Preconstruction Compatibility and Adhesion Testing: Submit to joint-sealant manufacturers, for testing indicated below, samples of materials that will contact or affect joint sealants.

- 1. Use ASTM C 1087 to determine whether priming and other specific joint preparation techniques are required to obtain rapid, optimum adhesion of joint sealants to joint substrates.
- 2. Submit not fewer than eight pieces of each kind of material, including joint substrates, shims, joint-sealant backings, secondary seals, and miscellaneous materials.
- 3. Schedule sufficient time for testing and analyzing results to prevent delaying the Work.
- 4. For materials failing tests, obtain joint-sealant manufacturer's written instructions for corrective measures including use of specially formulated primers.
- 5. Testing will not be required if joint-sealant manufacturers submit joint preparation data that are based on previous testing, not older than 24 months, of sealant products for adhesion to, and compatibility with, joint substrates and other materials matching those submitted.

- B. Preconstruction Field-Adhesion Testing: Before installing sealants, field test their adhesion to Project joint substrates as follows:

- 1. Locate test joints where indicated on Project or, if not indicated, as directed by Architect.
- 2. Conduct field tests for each application indicated below:

- a. Each kind of sealant and joint substrate indicated.
- 3. Notify Architect seven days in advance of dates and times when test joints will be erected.
- 4. Arrange for tests to take place with joint-sealant manufacturer's technical representative present.
  - a. Test Method: Test joint sealants according to Method A, Field-Applied Sealant Joint Hand Pull Tab, in Appendix X1 in ASTM C 1193 or Method A, Tail Procedure, in ASTM C 1521.
    - 1) For joints with dissimilar substrates, verify adhesion to each substrate separately; extend cut along one side, verifying adhesion to opposite side. Repeat procedure for opposite side.
- 5. Report whether sealant failed to adhere to joint substrates or tore cohesively. Include data on pull distance used to test each kind of product and joint substrate. For sealants that fail adhesively, retest until satisfactory adhesion is obtained.
- 6. Evaluation of Preconstruction Field-Adhesion-Test Results: Sealants not evidencing adhesive failure from testing, in absence of other indications of noncompliance with requirements, will be considered satisfactory. Do not use sealants that fail to adhere to joint substrates during testing.

#### 1.4 ACTION SUBMITTALS

- A. Product Data: For each joint-sealant product indicated.
- B. Samples for Initial Selection: Manufacturer's color charts consisting of strips of cured sealants showing the full range of colors available for each product exposed to view.
- C. Samples for Verification: For each kind and color of joint sealant required, provide Samples with joint sealants in 1/2-inch wide joints formed between two 6-inch long strips of material matching the appearance of exposed surfaces adjacent to joint sealants.
- D. Joint-Sealant Schedule: Include the following information:
  - 1. Joint-sealant application, joint location, and designation.
  - 2. Joint-sealant manufacturer and product name.
  - 3. Joint-sealant formulation.
  - 4. Joint-sealant color.

#### 1.5 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For qualified Installer and testing agency.
- B. Product Certificates: For each kind of joint sealant and accessory, from manufacturer.
- C. Sealant, Waterproofing, and Restoration Institute (SWRI) Validation Certificate: For each sealant specified to be validated by SWRI's Sealant Validation Program.

- D. Product Test Reports: Based on evaluation of comprehensive tests performed by a qualified testing agency, indicating that sealants comply with requirements.
- E. Preconstruction Compatibility and Adhesion Test Reports: From sealant manufacturer, indicating the following:
  - 1. Materials forming joint substrates and joint-sealant backings have been tested for compatibility and adhesion with joint sealants.
  - 2. Interpretation of test results and written recommendations for primers and substrate preparation needed for adhesion.
- F. Preconstruction Field-Adhesion Test Reports: Indicate which sealants and joint preparation methods resulted in optimum adhesion to joint substrates based on testing specified in "Preconstruction Testing" Article.
- G. Field-Adhesion Test Reports: For each sealant application tested.
- H. Warranties: Sample of special warranties.

#### 1.6 QUALITY ASSURANCE

- A. Installer Qualifications: Manufacturer's authorized representative who is trained and approved for installation of units required for this Project.
- B. Source Limitations: Obtain each kind of joint sealant from single source from single manufacturer.
- C. Product Testing: Test joint sealants using a qualified testing agency.
  - 1. Testing Agency Qualifications: An independent testing agency qualified according to ASTM C 1021 to conduct the testing indicated.
  - 2. Test according to SWRI's Sealant Validation Program for compliance with requirements specified by reference to ASTM C 920 for adhesion and cohesion under cyclic movement, adhesion-in-peel, and indentation hardness.
- D. Mockups: Install sealant in mockups of assemblies specified in other Sections that are indicated to receive joint sealants specified in this Section. Use materials and installation methods specified in this Section.

#### 1.7 PROJECT CONDITIONS

- A. Do not proceed with installation of joint sealants under the following conditions:
  - 1. When ambient and substrate temperature conditions are outside limits permitted by joint-sealant manufacturer or are below 40 deg F.
  - 2. When joint substrates are wet.
  - 3. Where joint widths are less than those allowed by joint-sealant manufacturer for applications indicated.
  - 4. Where contaminants capable of interfering with adhesion have not yet been removed from joint substrates.

## 1.8 WARRANTY

- A. Special Installer's Warranty: Manufacturer's standard form in which Installer agrees to repair or replace joint sealants that do not comply with performance and other requirements specified in this Section within specified warranty period.
  - 1. Warranty Period: Two years from date of Substantial Completion.

## PART 2 - PRODUCTS

### 2.1 MATERIALS, GENERAL

- A. Compatibility: Provide joint sealants, backings, and other related materials that are compatible with one another and with joint substrates under conditions of service and application, as demonstrated by joint-sealant manufacturer, based on testing and field experience.
- B. VOC Content of Interior Sealants: Sealants and sealant primers used inside the weatherproofing system shall comply with the following limits for VOC content when calculated according to 40 CFR 59, Subpart D (EPA Method 24):
  - 1. Architectural Sealants: 250 g/L.
  - 2. Sealant Primers for Nonporous Substrates: 250 g/L.
  - 3. Sealant Primers for Porous Substrates: 775 g/L.
- C. Low-Emitting Interior Sealants: Sealants and sealant primers used inside the weatherproofing system shall comply with the testing and product requirements of the California Department of Health Services' "Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers."
- D. Liquid-Applied Joint Sealants: Comply with ASTM C 920 and other requirements indicated for each liquid-applied joint sealant specified, including those referencing ASTM C 920 classifications for type, grade, class, and uses related to exposure and joint substrates.
  - 1. Suitability for Immersion in Liquids. Where sealants are indicated for Use I for joints that will be continuously immersed in liquids, provide products that have undergone testing according to ASTM C 1247. Liquid used for testing sealants is deionized water, unless otherwise indicated.
- E. Stain-Test-Response Characteristics: Where sealants are specified to be non-staining to porous substrates, provide products that have undergone testing according to ASTM C 1248 and have not stained porous joint substrates indicated for Project.
- F. Colors of Exposed Joint Sealants: As selected by Architect from manufacturer's full range.

### 2.2 URETHANE JOINT SEALANTS

- A. Single-Component, Nonsag, Urethane Joint Sealant: ASTM C 920, Type S, Grade NS, Class 100/50, for Use NT.

1. Products: Provide one of the following:
    - a. BASF Building Systems; Sonolastic NP1.
    - b. Pecora Corporation; Dynatrol I-XL.
    - c. Sika Corporation, Construction Products Division; Sikaflex - 1a.
    - d. Tremco Incorporated; Vulkem 116.
  2. Applications: Typical exterior joints (vertical and overhead).
- B. Multicomponent, Nonsag, Urethane Joint Sealant: ASTM C 920, Type M, Grade NS, Class 50, for Use NT.
1. Products: Subject to compliance with requirements, provide one of the following:
    - a. Pecora Corporation; Dynatrol II.
    - b. Polymeric Systems, Inc.; PSI-270.
    - c. Tremco Incorporated; Dymeric 240.

### 2.3 JOINT SEALANT BACKING

- A. General: Provide sealant backings of material that are non-staining; are compatible with joint substrates, sealants, primers, and other joint fillers; and are approved for applications indicated by sealant manufacturer based on field experience and laboratory testing.
- B. Cylindrical Sealant Backings: ASTM C 1330, type approved in writing by joint-sealant manufacturer for joint application indicated, and of size and density to control sealant depth and otherwise contribute to producing optimum sealant performance.
- C. Bond-Breaker Tape: Polyethylene tape or other plastic tape recommended by sealant manufacturer for preventing sealant from adhering to rigid, inflexible joint-filler materials or joint surfaces at back of joint. Provide self-adhesive tape where applicable.

### 2.4 MISCELLANEOUS MATERIALS

- A. Primer: Material recommended by joint-sealant manufacturer where required for adhesion of sealant to joint substrates indicated, as determined from preconstruction joint-sealant-substrate tests and field tests.
- B. Cleaners for Nonporous Surfaces: Chemical cleaners acceptable to manufacturers of sealants and sealant backing materials, free of oily residues or other substances capable of staining or harming joint substrates and adjacent nonporous surfaces in any way, and formulated to promote optimum adhesion of sealants to joint substrates.
- C. Masking Tape: Non-staining, nonabsorbent material compatible with joint sealants and surfaces adjacent to joints.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine joints indicated to receive joint sealants, with Installer present, for compliance with requirements for joint configuration, installation tolerances, and other conditions affecting joint-sealant performance.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

### 3.2 PREPARATION

- A. Surface Cleaning of Joints: Clean out joints immediately before installing joint sealants to comply with joint-sealant manufacturer's written instructions and the following requirements:
  - 1. Remove all foreign material from joint substrates that could interfere with adhesion of joint sealant, including dust, paints (except for permanent, protective coatings tested and approved for sealant adhesion and compatibility by sealant manufacturer), old joint sealants, oil, grease, waterproofing, water repellents, water, surface dirt, and frost.
  - 2. Clean porous joint substrate surfaces by brushing, grinding, mechanical abrading, or a combination of these methods to produce a clean, sound substrate capable of developing optimum bond with joint sealants. Remove loose particles remaining after cleaning operations above by vacuuming or blowing out joints with oil-free compressed air. Porous joint substrates include the following:
    - a. Concrete.
    - b. Masonry.
  - 3. Remove laitance and form-release agents from concrete.
  - 4. Clean nonporous joint substrate surfaces with chemical cleaners or other means that do not stain, harm substrates, or leave residues capable of interfering with adhesion of joint sealants. Nonporous joint substrates include the following:
    - a. Metal.
- B. Joint Priming: Prime joint substrates where recommended by joint-sealant manufacturer or as indicated by preconstruction joint-sealant-substrate tests or prior experience. Apply primer to comply with joint-sealant manufacturer's written instructions. Confine primers to areas of joint-sealant bond; do not allow spillage or migration onto adjoining surfaces.
- C. Masking Tape: Use masking tape where required to prevent contact of sealant or primer with adjoining surfaces that otherwise would be permanently stained or damaged by such contact or by cleaning methods required to remove sealant smears. Remove tape immediately after tooling without disturbing joint seal.

### 3.3 INSTALLATION OF JOINT SEALANTS

- A. General: Comply with joint-sealant manufacturer's written installation instructions for products and applications indicated, unless more stringent requirements apply.

- B. Sealant Installation Standard: Comply with recommendations in ASTM C 1193 for use of joint sealants as applicable to materials, applications, and conditions indicated.
- C. Install sealant backings of kind indicated to support sealants during application and at position required to produce cross-sectional shapes and depths of installed sealants relative to joint widths that allow optimum sealant movement capability.
  - 1. Do not leave gaps between ends of sealant backings.
  - 2. Do not stretch, twist, puncture, or tear sealant backings.
  - 3. Remove absorbent sealant backings that have become wet before sealant application and replace them with dry materials.
- D. Install bond-breaker tape behind sealants where sealant backings are not used between sealants and backs of joints.
- E. Install sealants using proven techniques that comply with the following and at the same time backings are installed:
  - 1. Place sealants so they directly contact and fully wet joint substrates.
  - 2. Completely fill recesses in each joint configuration.
  - 3. Produce uniform, cross-sectional shapes and depths relative to joint widths that allow optimum sealant movement capability.
- F. Tooling of Nonsag Sealants: Immediately after sealant application and before skinning or curing begins, tool sealants according to requirements specified in subparagraphs below to form smooth, uniform beads of configuration indicated; to eliminate air pockets; and to ensure contact and adhesion of sealant with sides of joint.
  - 1. Remove excess sealant from surfaces adjacent to joints.
  - 2. Use tooling agents that are approved in writing by sealant manufacturer and that do not discolor sealants or adjacent surfaces.
  - 3. Provide concave joint profile per Figure 8A in ASTM C 1193, unless otherwise indicated.
  - 4. Provide flush joint profile where indicated per Figure 8B in ASTM C 1193.
  - 5. Provide recessed joint configuration of recess depth and at locations indicated per Figure 8C in ASTM C 1193.
    - a. Use masking tape to protect surfaces adjacent to recessed tooled joints.

### 3.4 FIELD QUALITY CONTROL

- A. Field-Adhesion Testing: Field test joint-sealant adhesion to joint substrates as follows:
  - 1. Extent of Testing: Test completed and cured sealant joints as follows:
    - a. Perform 3 tests for the first 5 of joint length for each kind of sealant and joint substrate.

2. Test Method: Test joint sealants according to Method A, Field-Applied Sealant Joint Hand Pull Tab, in Appendix X1 in ASTM C 1193 or Method A, Tail Procedure, in ASTM C 1521.
  - a. For joints with dissimilar substrates, verify adhesion to each substrate separately; extend cut along one side, verifying adhesion to opposite side. Repeat procedure for opposite side.
3. Inspect tested joints and report on the following:
  - a. Whether sealants filled joint cavities and are free of voids.
  - b. Whether sealant dimensions and configurations comply with specified requirements.
  - c. Whether sealants in joints connected to pulled-out portion failed to adhere to joint substrates or tore cohesively. Include data on pull distance used to test each kind of product and joint substrate. Compare these results to determine if adhesion passes sealant manufacturer's field-adhesion hand-pull test criteria.
4. Record test results in a field-adhesion-test log. Include dates when sealants were installed, names of persons who installed sealants, test dates, test locations, whether joints were primed, adhesion results and percent elongations, sealant fill, sealant configuration, and sealant dimensions.
5. Repair sealants pulled from test area by applying new sealants following same procedures used originally to seal joints. Ensure that original sealant surfaces are clean and that new sealant contacts original sealant.

- B. Evaluation of Field-Adhesion Test Results: Sealants not evidencing adhesive failure from testing or noncompliance with other indicated requirements will be considered satisfactory. Remove sealants that fail to adhere to joint substrates during testing or to comply with other requirements. Retest failed applications until test results prove sealants comply with indicated requirements.

### 3.5 CLEANING

- A. Clean off excess sealant or sealant smears adjacent to joints as the Work progresses by methods and with cleaning materials approved in writing by manufacturers of joint sealants and of products in which joints occur.

### 3.6 PROTECTION

- A. Protect joint sealants during and after curing period from contact with contaminating substances and from damage resulting from construction operations or other causes so sealants are without deterioration or damage at time of Substantial Completion. If, despite such protection, damage or deterioration occurs, cut out and remove damaged or deteriorated joint sealants immediately so installations with repaired areas are indistinguishable from original work.

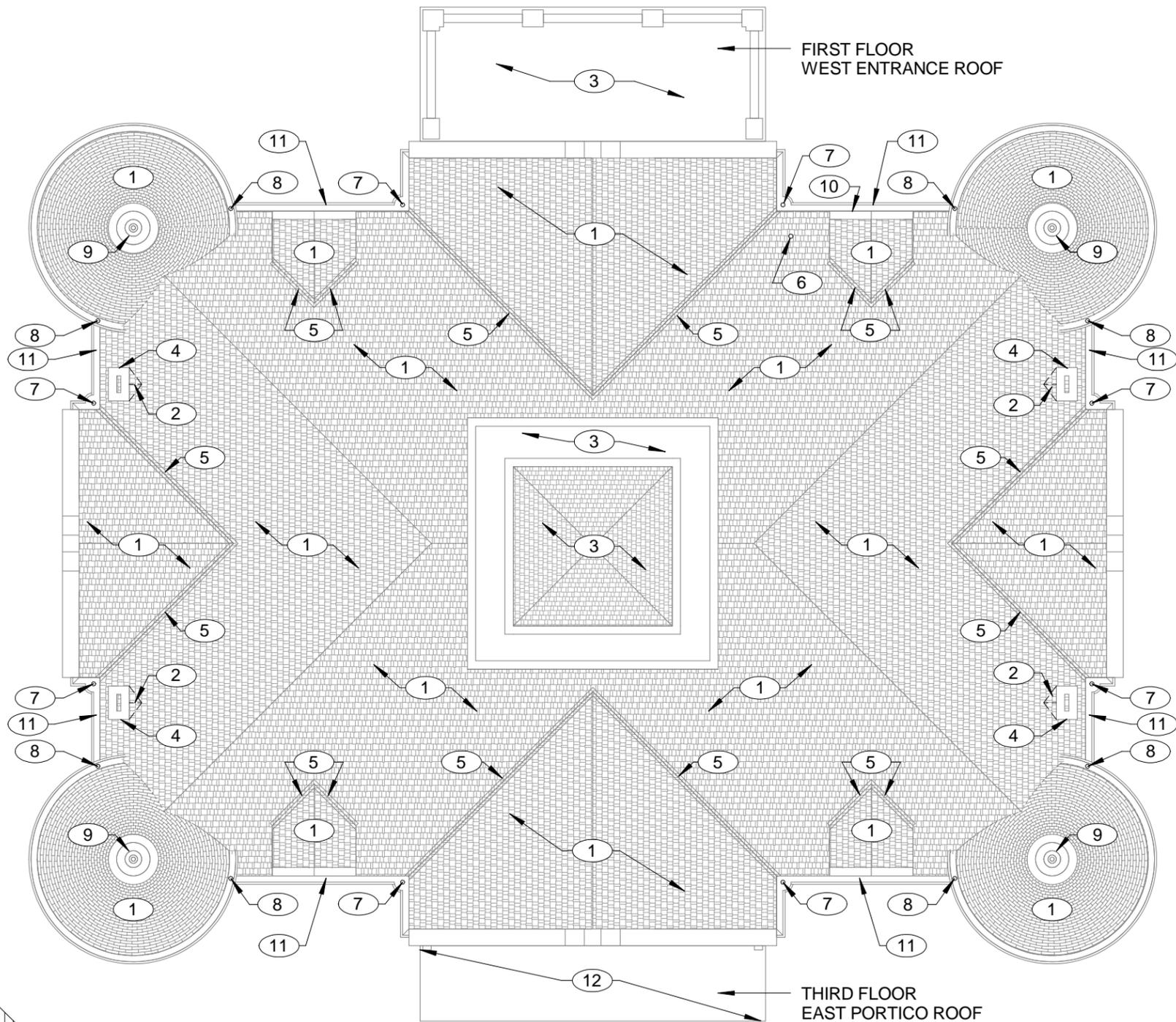
END OF SECTION 079200

GENERAL ROOF DEMOLITION NOTES

1. ANY DAMAGE TO ADJACENT SURFACES, FINISHES OR ACCESSORIES DURING THE DEMOLITION OR PROPOSED CONSTRUCTION PHASE SHALL BE REPAIRED TO MATCH THE EXISTING CONDITION BY THE DISCIPLINE WHOSE WORK RESULTED IN THE DAMAGE.
2. CONTRACTOR SHALL VISIT THE BUILDING AND SITE BEFORE SUBMITTING A PROPOSAL AND SHALL FAMILIARIZE HIMSELF WITH ALL CONDITIONS THAT AFFECT HIS PROPOSED AND REMODELING WORK. ANY QUESTIONS, AMBIGUITIES, CONFLICTS, ETC. SHALL BE RESOLVED WITH THE ARCHITECT PRIOR TO BIDDING. CONTRACTOR SHALL VISIT AND INSPECT THE WORK SO THAT HE WILL INCLUDE ALL NECESSARY ITEMS OF WORK IN HIS BID. UTMOST COORDINATION BETWEEN TRADES WILL BE NECESSARY.
3. CONTRACTOR TO PROVIDE ALL INDICATED AND REQUIRED DEMOLITION WORK EXCEPT WHERE SPECIFICALLY INDICATED TO BE PROVIDED BY OTHER CONTRACTS OR SHOWN BY OTHER DISCIPLINES AS THEIR WORK.
4. CONTRACTOR SHALL PROTECT EXISTING LANDSCAPING AND WALKS DURING DURATION OF PROJECT.
5. USE MATERIALS TO MATCH OR RESEMBLE EXISTING AND HAVE SAME FINISHES AS THOSE REMOVED AND/OR ADJACENT MATERIALS UNLESS OTHERWISE NOTED.
6. UNLESS NOTED OTHERWISE, ALL ITEMS OR MATERIALS INDICATED TO BE REMOVED SHALL BE DISPOSED OF BY THE CORRESPONDING DISCIPLINE PERFORMING THE RELATED WORK, ALSO SEE MECHANICAL AND ELECTRICAL DRAWINGS.
7. REMODELING, MODIFYING, PATCHING AND REPAIR OF EXISTING BUILDING COMPONENTS SHALL BE DONE AS REQUIRED TO PRODUCE FINISHED WORK EQUAL IN QUALITY TO THE PROPOSED WORK AS SPECIFIED AND DETAILED. CUTTING AND PATCHING SHALL BE THE RESPONSIBILITY OF THE TRADE WHOSE WORK RESULTS IN THE NEED FOR CUTTING AND PATCHING UNLESS A SPECIFIC CONTRACTOR IS CALLED OUT ON THE DRAWINGS. QUALITY OF WORKMANSHIP, MATERIALS AND QUALITY OF FINISH SHALL BE EQUAL TO THE LEVEL ESTABLISHED FOR SIMILAR PROPOSED WORK. EXCEPT WHERE EXISTING APPEARANCE IS TO BE MATCHED TO PROVIDE CONTINUITY.

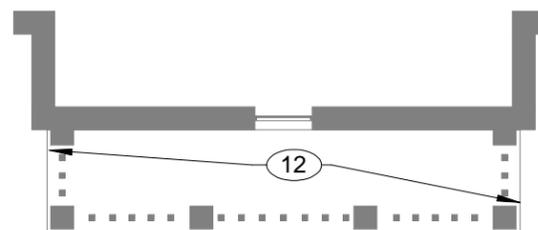
DEMOLITION NOTES

- 1 REMOVE ALL EXISTING ROOFING DOWN TO EXISTING ROOF DECK. REMOVE ALL ASSOCIATED UNDERLAYMENT, METAL FLASHINGS AND ASSOCIATED FASTENERS AS REQUIRED FOR INSTALLATION OF NEW ROOFING AND FLASHINGS.
- 2 REMOVE EXISTING ROOF CRICKET AT CHIMNEY.
- 3 EXISTING ROOFING TO REMAIN - PROTECT ROOFING FOR DURATION OF PROJECT.
- 4 EXISTING CHIMNEY AND METAL CAP TO REMAIN.
- 5 REMOVE EXISTING VALLEY FLASHING
- 6 REMOVE EXISTING VENT PIPE BOOT
- 7 EXISTING ROOF DRAIN TO REMAIN. PROTECT TO ENSURE NO DEBRIS ENTERS OR COVERS DRAIN.
- 8 REMOVE EXISTING DOWNSPOUT FROM TOWER GUTTER TO MAIN ROOF GUTTER & SALVAGE
- 9 REMOVE EXISTING DECORATIVE TOWER ROOF FINAL, TYP OF 4. AND SALVAGE
- 10 EXISTING LIGHTNING PROTECTION CABLE. REMOVE AND REINSTALL AS REQUIRED FOR ALL DEMOLITION AND NEW CONSTRUCTION WORK. COORDINATE WITH OWNER.
- 11 EXISTING GUTTER AND MEMBRANE GUTTER LINING TO REMAIN. CLEAN EXISTING MEMBRANE LINING AND PREP FOR INSTALLATION OF FLUID APPLIED MEMBRANE ROOFING ON ALL SURFACES OF EXISTING GUTTER.
- 12 EXISTING FULLY ADHERED EPDM ROOFING MEMBRANE AND TERMINATIONS TO REMAIN. CLEAN EXISTING MEMBRANE AND PREP FOR INSTALLATION OF FLUID APPLIED MEMBRANE ROOFING ON ALL SURFACES OF EXISTING ROOFING.



ROOF PLAN DEMOLITION

1/16" = 1'-0"



ROOF DEMOLITION PLAN - EAST PORTICO (2ND FLOOR)

1/16" = 1'-0"



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DEMOLITION ROOF PLAN  
CLINTON COUNTY COURTHOUSE  
ROOFING REPLACEMENT  
1900 North Third Street  
Clinton, Iowa 52733-2957

Project Description:

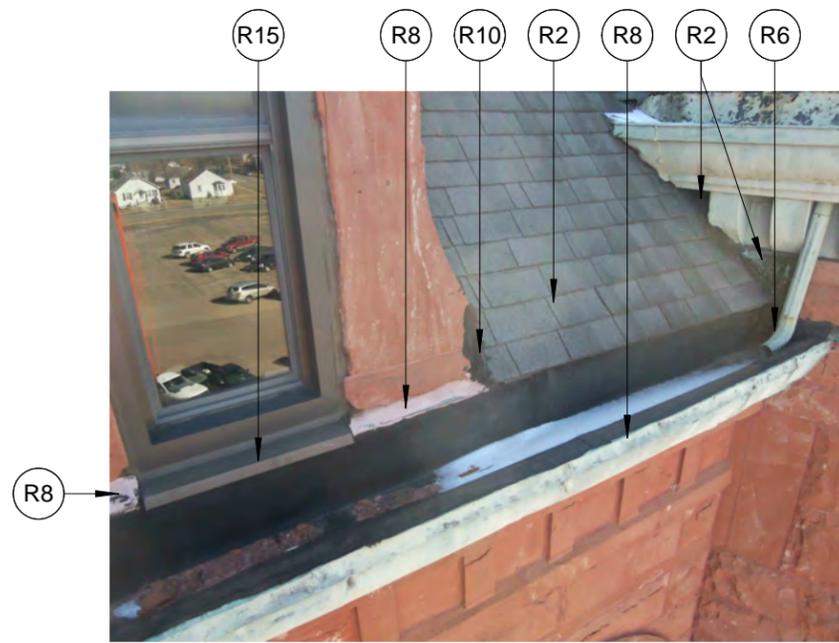
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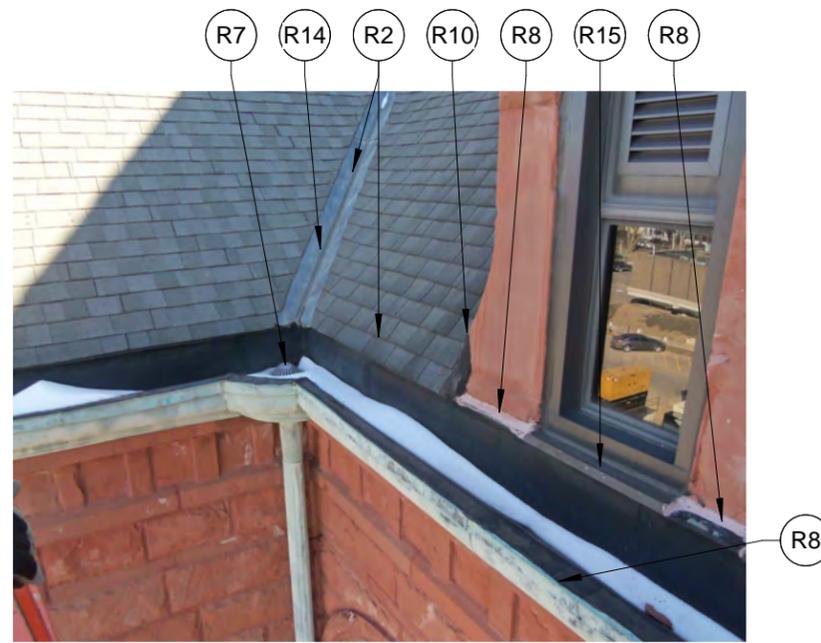


Project No: 15164

Drawing Issue Information:  
Project Mgr: MRF  
Issued for Bidding:  
Drawn By: DDB  
Issued For Construction:



**1** TYPICAL ROOF EAVE  
NOT TO SCALE

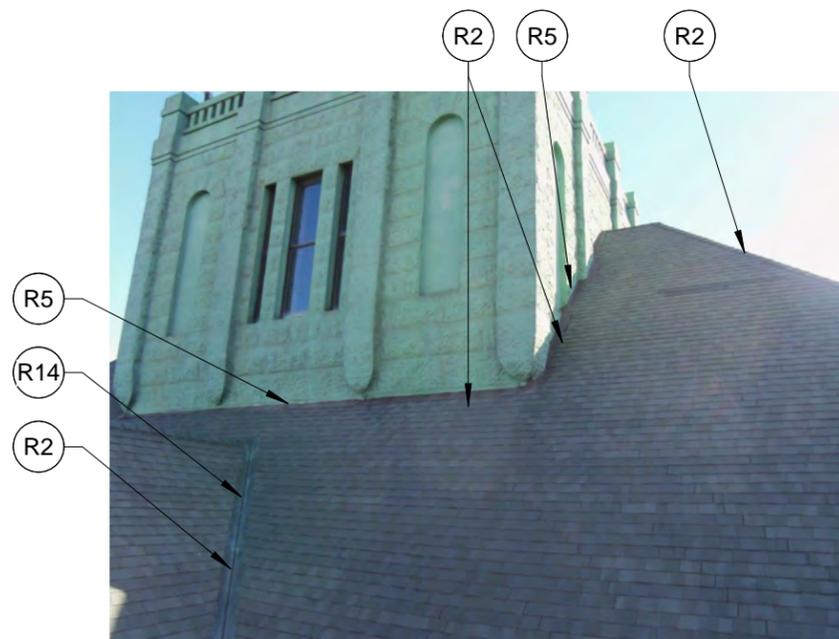


**2** TYPICAL ROOF VALLEY  
NOT TO SCALE

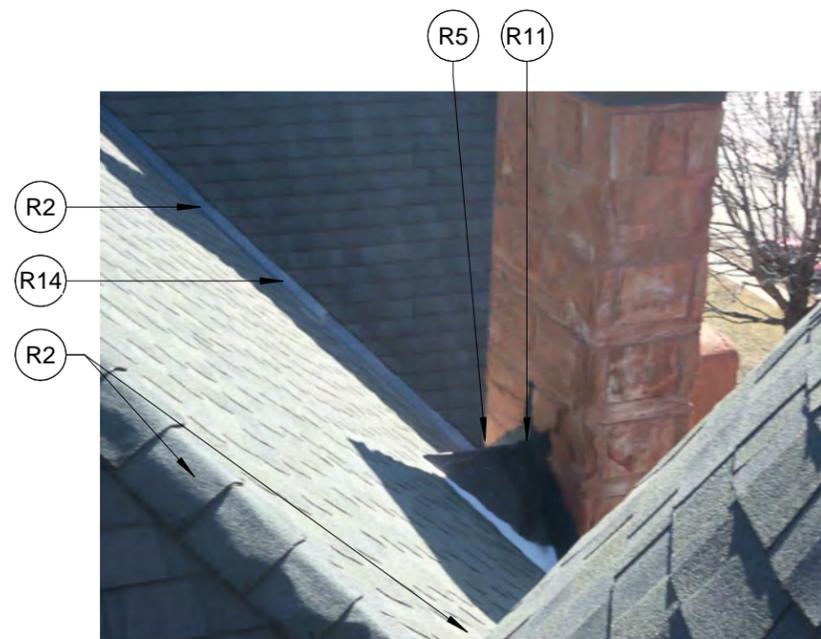


**3** TYPICAL LINED GUTTER  
NOT TO SCALE

SEE SHEET A3.0 FOR ROOF PLAN KEY NOTES



**4** TYPICAL ROOF AT TOWER  
NOT TO SCALE

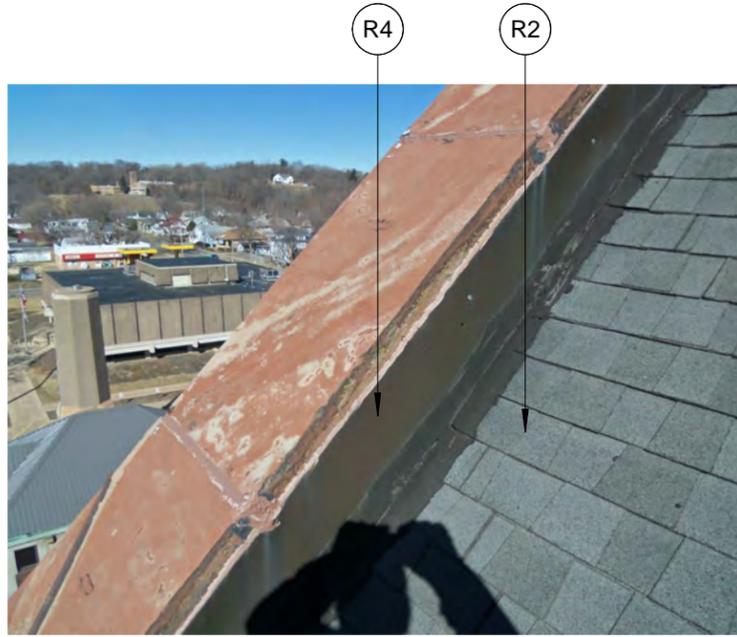


**5** TYPICAL CHIMNEY CRICKET  
NOT TO SCALE



**6** TYPICAL ROOF CAP  
NOT TO SCALE

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			4/27/2016	Date
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**1** TYPICAL GABLE PARAPET  
NOT TO SCALE



**2** TYPICAL DORMER  
NOT TO SCALE



**3** ROOF TO WALL  
NOT TO SCALE

SEE SHEET A3.0 FOR ROOF PLAN KEY NOTES



**4** ROOF AT PORTICO  
NOT TO SCALE



**5** ROOF TO WALL AT PORTICO  
NOT TO SCALE



**6** TYPICAL ROOF EDGE AT PORTICO ROOF  
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EXISTING PHOTOS  
CLINTON COUNTY COURTHOUSE  
ROOFING REPLACEMENT  
1900 North Third Street  
Clinton, Iowa 52733-2957

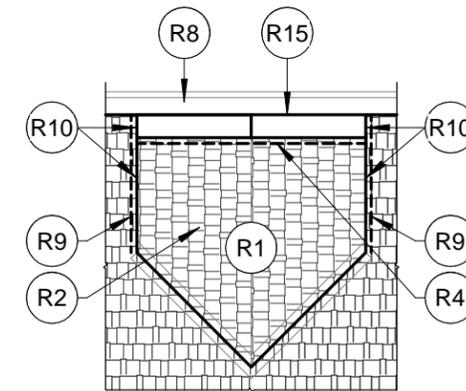
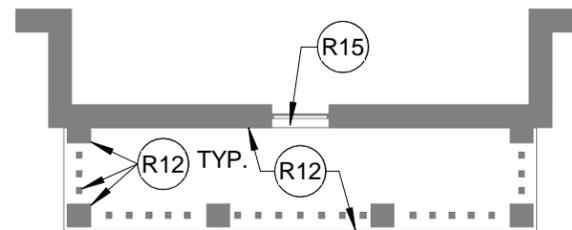
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	CONSTRUCTION DOCUMENTS	4/27/2016	

Drawing Issue Information:  
Project Mgr: MRF  
Issued for Bidding:  
Drawn By: DDB  
Issued For Construction:

ROOF PLAN KEY NOTES

- R1 INSTALL ASPHALT SHINGLES, HIP AND RIDGE SHINGLES OVER UNDERLAYMENT PER SPECIFICATIONS. COVER ALL ROOF DECK WITH UNDERLAYMENT.
- R2 INSTALL UNDERLAYMENT AT ALL EAVES, RAKES, VALLEYS, HIPs, RIDGES, VENTS, AND CHIMNEYS. EXTEND UNDERLAYMENT 4" MINIMUM UP VERTICAL SURFACE AT ROOF TO WALL CONDITION. INSTALL ASPHALT SHINGLE ROOFING AND UNDERLAYMENT. SEE PHOTOS: 1, 2, 3, 4, 5, & 6 / A1.1 ALSO 1 & 2 / A1.2
- R3 EXTEND SHINGLES AND UNDERLAYMENT A MIN. OF 8" UNDER BOTTOM OF DECORATIVE TOWER ROOF FINIAL. REINSTALL MOUNTING BRACKETS AND DECORATIVE TOWER ROOF FINIAL AFTER INSTALLATION OF SHINGLES. SEE PHOTO: 6 / A1.1
- R4 INSTALL ROOF TO WALL STEP FLASHING AND COUNTER FLASHING AT ALL PARAPET WALLS. CUT JOINT IN STONE FOR COUNTER FLASHING AND APPLY SEALANT. SEE PHOTO: 2 / A1.1
- R5 INSTALL ROOF TO WALL STEP FLASHING AND COUNTER FLASHING AT ALL SIDES OF EXISTING CHIMNEYS (TYP OF 4) AND CLOCK TOWER. CUT JOINT IN STONE FOR COUNTER FLASHING AND APPLY SEALANT. SEE PHOTOS: 4 & 5 / A1.1
- R6 REINSTALL SALVAGED DOWNSPOUT FROM TOWER GUTTER TO MAIN ROOF GUTTER. SEE PHOTO: 1 / A1.1
- R7 INSTALL FLUID APPLIED MEMBRANE ROOFING AROUND ENTIRE ROOF DRAIN AND INTO VERTICAL LEADER FOR COMPLETE SEAL. SEE PHOTOS: 2 & 3 / A1.1
- R8 INSTALL FLUID APPLIED MEMBRANE ROOFING OVER EXISTING EPDM AT EXISTING GUTTERS. COVER ALL EXISTING MEMBRANE TERMINATIONS AND EXTEND ON TO STONE. SEE PHOTOS: 1, 2, & 3 / A1.1
- R9 INSTALL ASPHALT SHINGLE ROOFING AND UNDERLAYMENT AT VERTICAL FACE OF DORMERS. PROVIDE METAL EDGE AND TERMINATION TO MATCH WHAT WAS REMOVED. SEE PHOTO: 2 / A1.2
- R10 INSTALL ROOF TO WALL STEP FLASHING AND COUNTER FLASHING AT ALL DORMER WALLS. CUT JOINT IN STONE FOR COUNTER FLASHING AND APPLY SEALANT. SEE PHOTOS: 1, 2, 3 & 4 / A1.1 & 2 / A1.2
- R11 INSTALL METAL ROOF CHIMNEY CRICKET FLASHING. SEE PHOTO: 5 / A1.2
- R12 INSTALL FLUID APPLIED MEMBRANE ROOFING OVER EXISTING EPDM AT EAST PORTICO ROOFS. COVER EXISTING MEMBRANE TERMINATIONS AND EXTEND ON TO STONE FACE FOR PROPER ADHESION. SEE PHOTOS: 3, 4, 5, & 6 / A1.2
- R13 INSTALL BOOT AND SEALANT AT EXISTING VENT THRU ROOF
- R14 INSTALL VALLEY FLASHING. SEE PHOTO: 2 / A1.1
- R15 EXTEND FLUID APPLIED MEMBRANE ROOFING UNDER EXISTING WINDOW FLASHING AS POSSIBLE.
- R16 EXISTING LIGHTNING PROTECTION CABLE. REMOVE AND REINSTALL AS REQUIRED FOR ALL DEMOLITION AND NEW CONSTRUCTION WORK. COORDINATE WITH OWNER. SEAL AROUND PENETRATIONS.
- R17 EXISTING ROOFING TO REMAIN PROTECT THROUGHOUT DURATION OF PROJECT. NO WORK ON THIS ROOF AS PART OF THIS PROJECT.

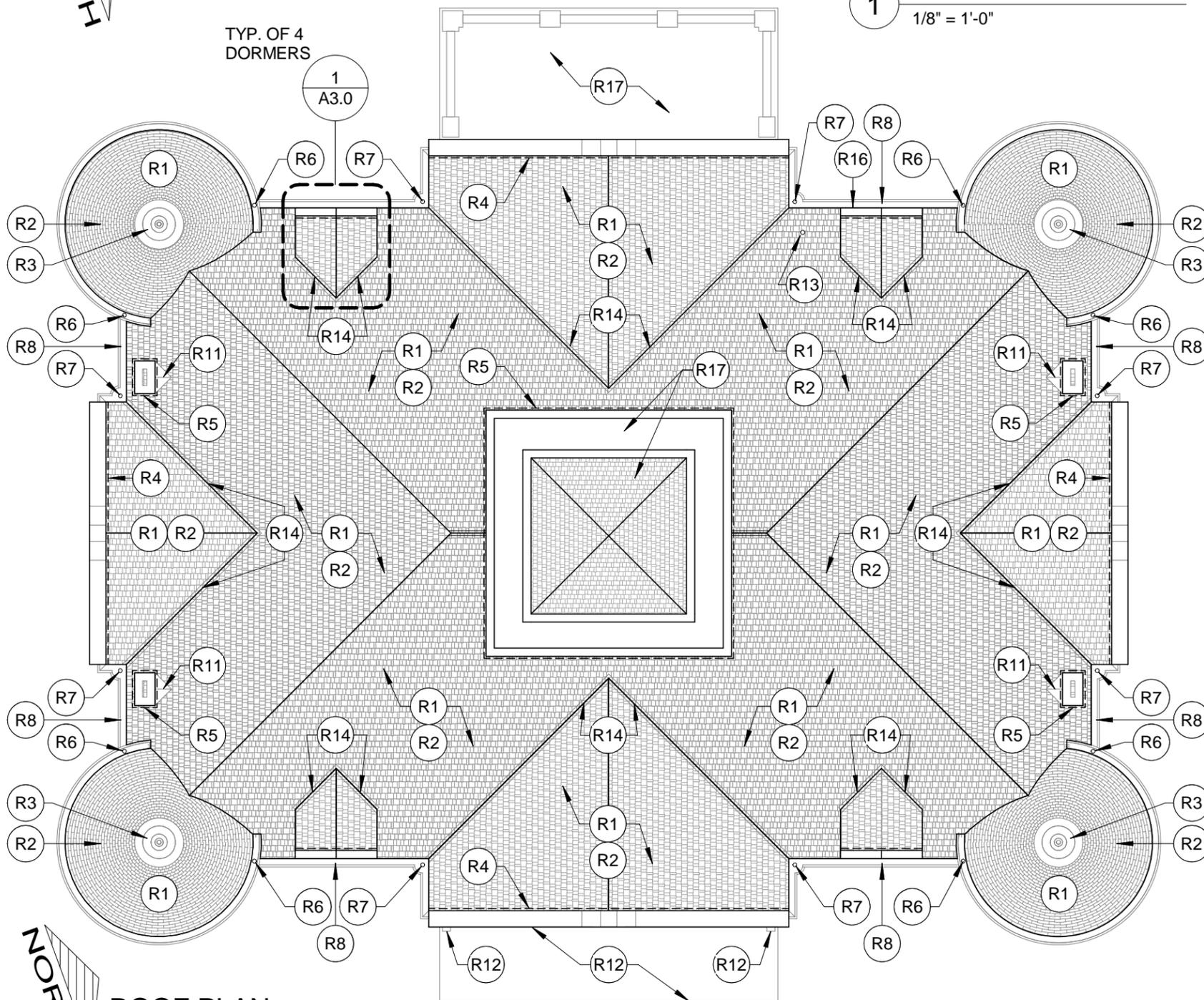


ROOF PLAN - EAST PORTICO (2ND FLOOR)

1/16" = 1'-0"

1 TYPICAL DORMER

1/8" = 1'-0"



ROOF PLAN

1/16" = 1'-0"

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ROOF PLAN  
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 ROOFING REPLACEMENT  
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 Project Description: CLINTON COUNTY COURTHOUSE - 15164  
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