

PROJECT MANUAL

VINTON WAR MEMORIAL RENOVATION

814 East Washington Avenue
Vinton, Virginia 24179
September 5, 2025
Comm. No. 24058.001

**SECTION 000101
PROJECT TITLE PAGE**

PROJECT MANUAL

FOR

VINTON WAR MEMORIAL RENOVATION

ARCHITECT'S PROJECT NUMBER: 24058.001

814 EAST WASHINGTON AVENUE

VINTON, VIRGINIA 24179

DATE: 09-05-2025

HUGHES ASSOCIATES ARCHITECTS & ENGINEERS

END OF SECTION

**SECTION 000102
PROJECT INFORMATION**

PART 1 GENERAL

1.01 PROJECT IDENTIFICATION

- A. Project Name: VINTON War Memorial Renovation, located at: 814 East Washington Avenue, Vinton, VA..
- B. Architect's Project Number: 24058.001
814 East Washington Avenue
Vinton, Virginia 24179.
- C. The Owner, hereinafter referred to as Owner: Town of Vinton.
- D. Owner's Architect: Hughes Associates Architects & Engineers.
- E. Owner's Project Manager: Mr. Jamie Hurt, Capital Projects Director, Town of Vinton.
 - 1. Address: 311 S. Pollard Street.
 - 2. Vinton, VA 24179.
 - 3. Phone/Fax: (540) 283-7023.
 - 4. E-mail: jhurt@vintonva.gov.

1.02 PROJECT DESCRIPTION

- A. Summary Project Description: This project includes renovation of the first and second floors of the existing building, minor structural repairs in the basement, minor renovations to the building exterior finishes, new exterior doors and windows, and minor renovations to site lighting and hard surfaces adjacent to the building..
- B. Contract Scope: Construction, demolition, & renovation.
- C. Contract Terms: Lump sum (fixed price, stipulated sum).

1.03 PROJECT CONSULTANTS

- A. The Architect, hereinafter referred to as Architect: Hughes Associates Architects & Engineers
Attn: Shawn Emmons.

1.04 PROCUREMENT TIMETABLE

- A. Mandatory Pre-Bid Conference: Tuesday, September 23, 2025 at 10:00 AM at the project site, 814 East Washington Avenue, Vinton VA 24179.
- B. Last Request for Information Due: Friday, October 3, 2025 at 5:00 PM.
- C. Bid Due Date: Tuesday, October 21, 2025, before 2 PM local time.
- D. Bid Opening: Bids will be opened publicly at 311 S. Pollard Street, Vinton, VA 24179 after the time for receipt of bids.
- E. Notice to Proceed: Within 14 days after due date.
- F. Contract Time: To be stated in bid documents.
- G. The Owner reserves the right to cancel this Invitation to Bid ("ITB"), reject any or all bids, and/or rebid the project at any time prior to the award of a contract. The Owner reserves the right to waive any informalities in bids.

1.05 PROCUREMENT DOCUMENTS

- A. Availability of Documents: Complete sets of procurement documents may be obtained:
 - 1. From a digital link provided by Hughes Associates Architects & Engineers. Request link by emailing or calling Shawn Emmons, semmons@hughesae.com or (540) 342-4002.

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ADVERTISEMENT FOR BIDS**

FROM:

1.01 THE OWNER (HEREINAFTER REFERRED TO AS OWNER):

- A. TOWN OF VINTON
- B. Address:
311 S. Pollard Street
Vinton, VA, 24179

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

- A. Hughes Associates Architects & Engineers
- B. Address:
3800 Electric Road SW, Suite 300
Roanoke, VA 24018

1.03 DATE: SEPTEMBER 5, 2025

1.04 TO: POTENTIAL BIDDERS

- A. Project consists of renovation of the existing War Memorial building located at:
814 East Washington Avenue
Vinton, VA 24179
- B. Bid Due Date: Tuesday, October 21, 2025 before 2:00 PM local time.
- C. Architect's Project Number: 24058.001.
- D. Digital PDF Bid Documents for a Stipulated Sum contract may be obtained from Hughes Associates Architects & Engineers, (540) 342-4002, Attn. Shawn Emmons
semmons@hughesae.com or Mike Woolwine mwoolwine@hughesae.com
- E. Submit your offer on the Bid Form provided.
- F. The Bid Form must be accompanied by a completed Disadvantaged Business Certification form.
- G. Your bid will be required to be submitted under a condition of irrevocability for a period of 30 days after submission.
- H. The Owner reserves the right to cancel this Invitation to Bid ("ITB"), reject any or all bids, and/or rebid the Project at any time prior to the award of the contract.
- I. The Owner reserves the right to waive any informalities in bids.

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- B. Document 001113 - Advertisement for Bids.
- C. Document 003100 - Available Project Information.
- D. Document 004100 - Bid Form.
- E. Document 007300 - Supplementary Conditions
- F. Appendix A - Disadvantaged Business Certification Form
- G. Appendix B - Owner's General Conditions
- H. Appendix C - General Conditions of the Contract for Construction (AIA Document A201-2017), as amended by the Supplementary Conditions (00 7300)

INVITATION TO BID

2.01 BID SUBMISSION

- A. Bids signed and under seal, executed, and dated will be received at the office of the Town of Vinton at 311 S. Pollard Street, Vinton VA 24179 before 2:00 p.m. local standard time on 10-21-2025. Oral, telephonic, telegraphic, or facsimile bids will not be considered.
- B. Pursuant to Virginia Code § 2.2-4303(A), bids may be submitted electronically by emailing BOTH the Town's Capital Projects Director (jhurt@vintonva.gov) and the Architect (semmons@hughesae.com) PRIOR to the date and time stated above. The Subject line of the email MUST state that it is a "Bid in Response to the "Vinton War Memorial Renovation ITB". The bid must be submitted as a .pdf attached to the email. Neither the email nor the name of the .pdf can identify any information about the amount of the bid. The email must be received, not just be sent, before the deadline.
- C. Bids submitted after the above time will be returned to the bidder unopened.
- D. Bids will be opened publicly at 311 S. Pollard Street, Vinton, VA 24179 immediately after the time for receipt of bids.
- E. Amendments to the submitted bid will be permitted if received in writing prior to bid closing and if endorsed by the same party or parties who signed and sealed the offer.

2.02 INTENT

- A. The Contractor will be selected using Competitive Sealed Bidding under Virginia Code § 2.2-4302.1.
- B. The intent of this Invitation to Bid ("ITB") is to award a contract to the lowest responsive and responsible bidder, to perform work to complete project named VINTON War Memorial Renovation for a Stipulated Sum contract, in accordance with Contract Documents.
- C. If no Bid is lower than funds available for the Project, as determined by Owner prior to the opening of bids, Owner reserves the right to negotiate with the apparent low Bidder pursuant to Virginia Code § 2.2-4318. Should the Owner determine that the Bid submitted by the Lowest Responsible Bidder is higher than available funds, it shall promptly invite the apparent low Bidder in writing to negotiate a lower contract price. This may involve changes in either the features or scope of the Work. Negotiations with such Bidder may include reducing the quantity or quality of the Work, or other cost saving mechanisms. The objective of the negotiations will be to secure a contract that completes the Project within available funds. Owner may negotiate with the apparent low Bidder to obtain a contract within available funds for a period not to exceed sixty (60) consecutive, calendar days from the day it issues said written invitation to negotiate. If an acceptable contract can be negotiated, any changes to the Work agreed upon in the negotiations will be itemized in a Modification and included in the Contract Documents. If an acceptable contract cannot be negotiated, the Owner shall terminate negotiations and reject all Bids.

2.03 WORK IDENTIFIED IN THE CONTRACT DOCUMENTS

- A. Work of this proposed Contract comprises building construction, renovation, and demolition, including general construction Work.
- B. Project Location:
814 East Washington Avenue
Vinton, Virginia 24179.

2.04 CONTRACT TIME

- A. The bidder, in submitting a bid, accepts the Contract Time period stated for performing the Work. The completion date in the Agreement shall be the Contract Time added to the commencement date.

BID DOCUMENTS AND CONTRACT DOCUMENTS

3.01 DEFINITIONS

- A. Bid Documents: See the Procurement Documents as defined in Section 5.1 of the Owner's General Conditions (and as defined in Part 3.02 below) PLUS the Appendices.
- B. Contract Documents: See Section 5.1 of the Owner's General Conditions (and Part 3.02 below).
- C. Bid, Offer, or Bidding: Act of submitting an offer under seal.
- D. Bid Amount: Monetary sum identified by the Bidder in the Bid Form.
- E. Contract Sum: The stipulated sum identified in the Contract for which the Contractor will perform, furnish, and install all of the Work required for the project.
- F. Drawings and Specifications: The requirements for the Work on the Project contained in Division 01 through Division 46 and the drawings listed in Section 00 0115.
- G. Work: The term "Work" means the construction and services required by the Contract Documents, whether completed or partially completed, and includes all other labor, materials, equipment, supplies, and services reasonably inferable from the Contract Documents as necessary to be provided by the Contractor to fulfill its obligations under the Contract Documents to complete the Project, and all other labor, materials, services, and items required to produce fully connected, complete, code-compliant, operational and functional systems and finishes. The Work may constitute the whole or a part of the Project.

3.02 CONTRACT DOCUMENTS

- A. Contract Documents for the Vinton War Memorial Renovation include: (i) the Procurement Documents (contained at Section 00 0101 through Section 00 5000), including any subsequently issued Addenda to the Procurement Documents (collectively, the "ITB"); (ii) the completed and signed Bid Form and Bid Bond; (iii) the AIA Document A101-2017 ("Agreement"); (iv) the Owner's General Conditions; (v) AIA Document A201-2017, General Conditions of the Contract for Construction ("AIA General Conditions"), as amended by the Supplementary Conditions (Section 00 7300); (vi) the Drawings (listed in Section 00 0115) and Specifications (Division 01 through Division 46) prepared by Hughes Associates Architects & Engineers ("Architect") and included with the ITB; (vii) the Performance and Payment Bonds; (viii) any Change Orders or Change Directives; and (ix) any Modifications to the Contract. Anything called for by one of the Contract Documents and not called for by the others shall be of like effect as if required or called for by all Contract Documents. To the extent practicable, the terms and conditions of the Contract Documents will be read consistently with each other. In the case of conflict between the terms and conditions of the Contract Documents, the Order of Precedence of the Contract Documents shall be as follows: (i) the Owner's General Conditions; (ii) the AIA General Conditions as amended by the Supplementary Conditions; (iii) the Drawings and Specifications; (iv) the Agreement, including any Modifications, Change Orders or Change Directives; (v) the ITB; (vi) the completed and signed Bid Form; and (vii) the Bonds

3.03 AVAILABILITY

- A. Bid Documents and Contract Documents are available from a digital link provided by Hughes Associates Architects & Engineers. Request this link by emailing or calling (540) 342-4002 Shawn Emmons, semmons@hughesae.com, or Mike Woolwine, mwoolwine@hughesae.com
- B. Bid Documents and Contract Documents are made available only for the purpose of obtaining offers for this project. Their use does not grant a license for other purposes.
- C. All Bid Documents and Contract Documents prepared and/or furnished by the Architect or Owner shall be the exclusive property of the Owner and shall not be used for any other project(s).

3.04 EXAMINATION

- A. Upon receipt of Bid Documents verify that documents are complete. Notify Architect should the documents be incomplete. Each Bidder is responsible for thoroughly examining the Bid Documents and the Contract Documents.
- B. Immediately notify Architect upon finding discrepancies or omissions in the Bid Documents and/or and Contract Documents..
- C. Owner and Architect are not responsible for errors or omissions by contractors or vendors who do not receive and examine complete sets of drawings or the Project Manual.
- D. Each Bidder shall promptly notify, in writing, the Architect of any ambiguity, inconsistency, or error which may be discovered upon examination of the Bid Documents and/or and Contract Documents. The Bidder waives any claim, defense, or objection arising from a failure to examine, identify, and notify the Architect of any such ambiguity, inconsistency, or error.

3.05 INQUIRIES/ADDENDA

- A. Direct questions to Shawn Emmons, email; semmons@hughesae.com, (540) 342-4002.
- B. Addenda may be issued during the bidding period. All Addenda become part of Contract Documents. Include resultant costs in the Bid Amount.
- C. Verbal answers are not binding on any party.
- D. Clarifications requested by bidders must be in writing no later than 5:00 PM on October 3, 2025. The reply will be in the form of an Addendum, a copy of which will be forwarded to known recipients.

SITE ASSESSMENT

4.01 SITE EXAMINATION

- A. Examine the project site before submitting a bid.
- B. Each Bidder is responsible for examining carefully the site of the Work and the Contract Documents relating to the Work. By submitting a Bid, the Bidder represents that it has examined and considered the conditions to be encountered at the Project site, the character, quality, and quantities of Work to be performed, the material to be furnished, and other requirements of the Contract Documents. The Bidder waives any claim, defense, or objection arising from a failure to have done any such examination, from failures in the performance of any such examination, or based on site conditions.
- C. Bidder's signature on the Bid Form certifies that you have either inspected the job site or voluntarily declined the inspection, are aware of the conditions under which the work must be accomplished, that you are aware of and understand the requirements for the Project, and that you fully understand the solicitation. It is the responsibility of each Bidder to inquire about and clarify any requirements of this solicitation that are not understood. Failure to understand the requirements of this solicitation will not relieve the Contractor of any responsibilities under any contract. Claims, as a result of failure to inspect the job site or failure to obtain clarification of requirements, will not be considered by the Owner.

4.02 PREBID CONFERENCE

- A. A mandatory bidders conference has been scheduled for 10:00 a.m. on the 23rd day of September 2025 at 814 East Washington Avenue, Vinton VA 24179.
- B. All general contract bidders and suppliers are invited.
- C. Representatives of Architect will be in attendance.
- D. Information relevant to the Bid Documents will be recorded in an Addendum, issued to Bid Document recipients.

QUALIFICATIONS

5.01 EVIDENCE OF QUALIFICATIONS

- A. To demonstrate its qualification to perform the Work of this Contract, each Bidder must submit with its Bid a statement of its qualifications, its experience constructing the types of improvements embraced in the Contract, its record of performance on construction contracts in the past five years, and its organization, personnel, and equipment available to dedicate to the Work contemplated in order to guarantee timely completion of the Work.
- B. Each Bidder must provide three examples of construction contracts that it has successfully completed that are similar in complexity to the Project. For each project, please provide the (i) name of the owner, (ii) the name of the project, and (iii) the name of a contact person with the owner whom the Owner may contact for a reference.
- C. For any construction contract over the past five years where the Bidder commenced work on the project but resigned or was terminated or replaced as the general contractor prior to substantial completion of that project, please state the (i) name of the owner, (ii) the name of the project, and (iii) the Bidder's explanation for why it did not complete the project. Owner reserves the right to contact the owner for a reference as part of its evaluation of Bidder's qualifications.
- D. Each Bidder must identify generally the other significant construction contracts it anticipates having in place during the performance of Work on this Project, by identifying the nature of the other work being performed and the size, scope, and location of the other work being performed. Each Bidder must confirm in writing that it has the personnel, equipment and other resources to timely complete the Work on this Project in accordance with the Contract Documents notwithstanding its other contractual obligations. Bidders need not identify the owner or the project specifically if there are confidentiality concerns; a generic description of the projects will suffice.
- E. Owner shall have the right to take such steps as it deems necessary to determine the ability of the Bidder to perform its obligation under the Contract, and the Bidder shall furnish the Owner all such information and data indicated on the form. The right is reserved to reject any Bid where an investigation of the available evidence or information does not satisfy the Owner that the Bidder is qualified to properly carry out the terms of the Contract.

5.02 SUBCONTRACTORS/SUPPLIERS/OTHERS

- A. Owner reserves the right to reject a proposed subcontractor for reasonable cause.
- B. Refer to General Conditions.

BID SUBMISSION

6.01 SUBMISSION PROCEDURE

- A. Bidders shall be solely responsible for the delivery of their bids in the manner and time prescribed.
- B. Bids must be submitted upon the Bid Form. Except as may be otherwise noted, the blank spaces in the Bid Form must be completed. Bid Forms shall be completed and signed in ink.
- C. Any alterations to the Bid must be made on the Bid Form in the spaces provided. The alterations must be made prior to Bid submittal and the sealing of the bid envelope. Alterations shall be dated and signed. Bids containing any conditions, omissions, unexplained erasures, alterations or items not called for in the bid documents, or irregularities of any kind, may be rejected by the Owner as being incomplete and/ or non-responsive. NO ALTERATIONS TO THE BID BY NOTATIONS ON THE OUTSIDE OF THE ENVELOPE WILL BE CONSIDERED IN THE REVIEW AND TABULATION OF BIDS OR FOR ANY OTHER PURPOSE.
- D. Each Bidder shall submit: (i) a signed and completed Bid Form; (ii) a Bid Bond; (iii) a signed and completed copy of the Disadvantaged Business Certification.
- E. Each Bidder acknowledges and agrees that it has considered in its Bid the requirements of the Contract Documents, local conditions, surface and subsurface conditions, availability of

material, equipment, labor, and any other factors which may affect the performance of the Work. Each Bidder agrees and warrants that it will complete the Work not later than the time period indicated for completion, time being of the essence.

- F. All Bid forms shall be signed by a person on behalf of the responding Bidder who is authorized to do so. The printed name of that authorized person should be shown as well. Any bid submitted should be in the complete legal name of the Bidder responding. No Bid shall be considered from any Bidder not properly licensed as may be required by law. **All Bids submitted in response to this ITB are subject to and shall be deemed to incorporate by reference the terms, conditions, provisions, and requirements of the Contract Documents. Bidder agrees that its Contract performance shall be in strict conformance with the Contract Documents.**
- G. The terms and conditions in the Contract Documents will apply to the resulting Contract and shall supersede any conflicting terms offered by Bidder. **Any additional or modified conditions a Bidder intends to propose must be submitted with the Bid as an exception.** Such exceptions may result in a finding that the Bid is "non-responsive", negating possibility of an award to that Bidder. Proposed contractual documents submitted by the successful firm after an award will not be accepted.
- H. Bids must be received before August 5, 2025, 2:00 PM local time. Submit one copy of the executed offer on the Bid Forms provided, signed and sealed in a closed opaque envelope, clearly identified with Bidder's name and the Project name, 'Vinton War Memorial Renovation', on the outside of the envelope. No other information is to be included on the outside of the envelope.
- I. Owner will not be responsible for the premature opening of improperly addressed, labeled, or misidentified Bids.
- J. Improperly completed information may be cause for Owner not to open the Bid and/or to declare the Bid invalid.
- K. The Bidder certifies that this Bid has been arrived at independently, without consultation, communication, or agreement with any other Bidder concerning any matter relating to this Bid.
- L. The Bidder may amend or withdraw a bid prior to the Opening.
- M. Bids may not be withdrawn for a period of thirty (30) calendar days after the opening of Bids unless the Bid is substantially lower than the other bids because of a clerical error as defined in Virginia Code § 2.2-4330. Pursuant to Virginia Code § 2.2-4330(B)(1), the Bidder shall give to the Owner notice in writing of the Bidder's claim of right to withdraw the bid within two (2) business days after the opening of bids and shall submit the original work papers, documents, and material used in the preparation of the Bid with such notice. Other applicable provisions of Virginia Code § 2.2-4330 shall apply to any errors in bids or any requested withdrawal due to errors in Bids.

6.02 BID INELIGIBILITY

- A. Bids that are unsigned, improperly signed or sealed, conditional, illegible, obscure, contain arithmetical errors, erasures, alterations, or irregularities of any kind, may at the discretion of the Owner, be declared unacceptable.
- B. Bid Forms, Appendices, and enclosures that are improperly prepared may, at the discretion of Owner, be declared unacceptable.

BID ENCLOSURES/REQUIREMENTS

7.01 BID GUARANTEE

- A. Bids must be accompanied by a bid guarantee as follows:
 - 1. Bid Bond of a sum no less than 5 percent of the **Total Base Bid Amount and Additive Alternate 1 and Additive Alternate 2**.
- B. Endorse the Bid Bond in the name of the Owner as obligee, signed and sealed by the principal (Contractor) and surety.

- C. The Bid Bond will be returned after delivery to the Owner of the required Performance and Payment Bond(s) by the accepted Bidder.
- D. If no contract is awarded, all security deposits will be returned.

7.02 PERFORMANCE ASSURANCE

- A. Accepted Bidder: A Performance Bond and a Labor and Materials Payment Bond each in the amount of one hundred percent (100%) of the Contract Sum must be furnished by the successful bidder.
- B. Include the cost of Performance and Payment Bonds in the Bid Amount and identify the cost on the Bid form.
- C. Should the successful Bidder fail or refuse to execute the Contract or furnish the required Performance Bond and Labor and Material Payment bond, or other securities, within the stipulated time, the Bid or other security shall be due and paid to the Owner and the Owner shall be entitled to collect the Bid Bond or other security. In addition, the Owner may pursue any and all other remedies available to it at law or in equity against.

7.03 BID FORM REQUIREMENTS

- A. Complete all requested information in the Bid Form and Appendices.

7.04 FEES FOR CHANGES IN THE WORK

- A. Include in the Bid Form, the overhead and profit fees on own Work and Work by subcontractors, applicable for Changes in the Work, whether additions to or deductions from the Work on which the Bid Amount is based. This amount shall not exceed the amounts stated in Article 7 of the AIA General Conditions as amended by the Supplementary Conditions.
- B. Contractor shall apply fees, as noted, to the subcontractor's gross (net plus fee) costs on additional work as provided in Article 7 of the AIA General Conditions as amended by the Supplementary Conditions.

7.05 BID FORM SIGNATURE

- A. The Bidder represents and warrants that the Bid Form shall be signed by a person authorized to sign on behalf of the bidder, as follows:
 - 1. Sole Proprietorship: Signature of sole proprietor in the presence of a witness who will also sign. Insert the words "Sole Proprietor" under the signature. Affix seal.
 - 2. Partnership: Signature of all partners in the presence of a witness who will also sign. Insert the word "Partner" under each signature. Affix seal to each signature.
 - 3. Limited Liability Company: Signature of a duly authorized member or manager. Insert the individual's name and title.
 - 4. Corporation: Signature of a duly authorized signing officer(s) in their normal signatures. Insert the officer's capacity in which the signing officer acts, under each signature.

OFFER ACCEPTANCE/REJECTION

8.01 DURATION OF OFFER

- A. Bids shall remain open to acceptance and shall be irrevocable for a period of thirty (30) days after the bid closing date.

8.02 AWARD OF CONTRACT

- A. Owner reserves the right to reject any and all Bids; to waive any and all informalities in any Bid, and to disregard all nonconforming, nonresponsive, or conditional Bids. Also, Owner reserves the right to reject the Bid of any Bidder if Owner believes that it would not be in the best interest of the Project to make an award to that Bidder, whether because the Bid is not responsive, Bidder is unqualified, of doubtful financial ability, or fails to meet any other pertinent standard or criteria established by Owner.
- B. The Contract, if awarded, will be on the basis of material and equipment described in the Drawings or specified in the Specifications without consideration of possible substitute or "or equal" items.

- C. In evaluating Bids, Owner will consider the qualifications of the Bidders, whether or not the Bids comply with the prescribed requirements, and such alternates, unit prices and other data, as may be requested in the Bid Form or prior to the Notice of Award. Other factors to be considered by the Owner in evaluating Bids will include:
1. The ability, capacity and skill of the Bidder to timely perform the Work required by the Contract Documents, without any delay or interference.
 2. The character, integrity, reputation, judgment, experience and efficiency of the Bidder.
 3. The quality of the Bidder's performance of previous construction contracts (with Owner or other owners), including without limitation the Bidder's demonstrated history of satisfactorily performing construction contracts over the past five (5) years.
 4. The previous and existing compliance by the Bidder with laws and ordinances relating to construction contracts.
 5. The equipment, facilities, personnel, Subcontractors and Subcontractors' personnel available to the Bidder to timely perform the Work required by the Contract Documents.
 6. The sufficiency of the financial resources and ability of the Bidder to timely perform the Work required by the Contract Documents.
 7. The quality, availability and adaptability of the supplies, materials, equipment or services to the particular use required.
 8. The ability of the Bidder to provide future maintenance, parts and service for the use of the subject of the purchase or Contract, if required.
 9. Life cycle costing, value analysis, and other criteria to determine acceptability, such as inspection, testing, quality, workmanship, delivery, suitability for a particular purpose.
- D. Owner may consider the qualifications and experience of Subcontractors, Suppliers, and other persons and organizations proposed for those portions of the Work as to which the identity of Subcontractors, Suppliers, and other persons and organizations must be submitted under the Bid Documents.
- E. Owner may conduct such investigations as it deems necessary to assist in the evaluation of any Bid and to establish the responsibility, qualifications, and financial ability of the Bidders, proposed Subcontractors, Suppliers, and other persons and organizations to perform and furnish the Work in accordance with the Contract Documents to Owner's satisfaction within the prescribed time.
- F. If the Contract is to be awarded, such award shall be to the responsible Bidder submitting the lowest responsive Bid. Evaluation shall be made on the basis of the **Total Base Bid Amount and Additive Alternate 1 and Additive Alternate 2.**

8.03 ACCEPTANCE OF OFFER

- A. Owner reserves the right to cancel this invitation to bid and reject any or all bids.
- B. After acceptance by Owner, Architect on behalf of Owner, will issue to the successful bidder, a written Notice To Proceed.

END OF SECTION

**SECTION 003100
AVAILABLE PROJECT INFORMATION**

PART 1 GENERAL

1.01 EXISTING CONDITIONS

- A. Certain information relating to existing surface and subsurface conditions and structures is available to bidders but will not be part of Contract Documents, as follows:
- B. Hazardous Material Survey.
 - 1. Original copy is available for inspection at Owner's offices during normal business hours.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.01 OBTAINMENT OF PERMITS

- A. Contractor to obtain the following required permits, at no cost to Owner:
 - 1. Building Permit for all trades from Roanoke County.

END OF SECTION

**SECTION 004100
BID FORM**

THE PROJECT AND THE PARTIES

1.01 TO:

- A. Owner
Town of Vinton
Attn. Mr. Jamie Hurt, Capital Projects Manager
311 S. Pollard Street
Vinton, Virginia 24179

1.02 FOR:

- A. Project: Vinton War Memorial Renovation
B. Project Number: 24058.001
814 East Washington Avenue
Vinton, Virginia 24179

1.03 DATE: _____ (BIDDER TO ENTER DATE)

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

- A. Bidder's Firm Name _____
1. Printed or Typed Authorized Name _____
2. Title _____
3. Authorized Signature _____
4. Address _____
5. City, State, Zip _____
6. Phone Number _____
7. Email _____
8. State Contractor License No. _____

1.05 TOTAL BASE BID AMOUNT

- A. Having examined the Place of The Work and all matters referred to in the Instructions to Bidders and the Bid Documents prepared by Hughes Associates Architects & Engineers for the above mentioned project, we, the undersigned, hereby offer to enter into a Contract to perform the Work for the Sum of:
- B. _____ dollars
(\$ _____), in lawful money of the United States of America.
- C. We have included the required security deposit as required by the Instruction to Bidders.
- D. We have included the required performance assurance bonds in the Total Base Bid Amount as required by the Instructions to Bidders.
1. The cost of the required performance assurance bonds is _____ dollars
(\$ _____), in lawful money of the United States of America.
- E. All Cash and Contingency Allowances described in Section 012100 - Allowances are included in the Total Base Bid Amount.
- F. *The undersigned agrees that it will use as the subcontractor for Work under HVAC BAS CONTROLS on sheet M2-1 and for related Work shown on the drawings, Comfort Systems USA, 811 Pocahontas Ave NE, Roanoke, VA 24012, a subcontractor selected by the Owner, for a subcontract price of \$ _____ [words and numbers], and that this quote has been included in the TOTAL BASE BID AMOUNT above. The undersigned agrees that it will be responsible for this subcontractor and its work just as if it had been selected by the undersigned.*

1.06 ACCEPTANCE

- A. This offer shall be open to acceptance and is irrevocable for thirty days from the bid closing date.
- B. If this bid is accepted by Owner within the time period stated above, we will:
 - 1. Execute the Agreement within seven days of receipt of Notice of Award.
 - 2. Furnish the required bonds within seven days of receipt of Notice of Award.
 - 3. Commence work within seven days after written Notice to Proceed of this bid.

1.07 CONTRACT TIME

- A. If this Bid is accepted, we will:
- B. Complete the Work by the 21st day of August, 2026.

1.08 CHANGES TO THE WORK

- A. When Architect establishes that the method of valuation for Changes in the Work will be net cost plus a percentage fee in accordance with General Conditions, our percentage fee will be:
 - 1. _____ percent overhead and profit on the net cost of our own Work;
 - 2. _____ percent on the cost of work done by any Subcontractor.
- B. On work deleted from the Contract, our credit to Owner shall be Architect-approved net cost plus _____ of the overhead and profit percentage noted above.

1.09 ADDENDA

- A. The following Addenda have been received. The modifications to the Bid Documents noted below have been considered and all costs are included in the Total Base Bid Amount.
 - 1. Addendum # _____ Dated _____.
 - 2. Addendum # _____ Dated _____.
 - 3. Addendum # _____ Dated _____.
 - 4. Addendum # _____ Dated _____.

1.10 BID FORM SUPPLEMENTS

- A. The following information is included with Bid submission:
 - 1. Additive Alternates: 1, 2.
- B. The following Supplements are attached to this Bid Form and are considered an integral part of this Bid Form:
 - 1. Document 004323 - Alternates Form: Include the cost variations to the Total Base Bid Amount applicable to the Work as described in Section 01 2300.

1.11 BID FORM SIGNATURE(S)

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

END OF SECTION

**SECTION 004323
ALTERNATES FORM**

PARTICULARS

**1.01 THE FOLLOWING IS THE LIST OF ADDITIVE ALTERNATES REFERENCED IN THE BID
SUBMITTED BY:**

1.02 (BIDDER) _____

1.03 TO (OWNER): TOWN OF VINTON

1.04 DATED _____ AND WHICH IS AN INTEGRAL PART OF THE BID FORM.

ALTERNATES LIST

**2.01 THE FOLLOWING AMOUNTS SHALL BE ADDED TO THE BID AMOUNT. REFER TO SECTION
012300 - ALTERNATES.**

ADDITIVE ALTERNATE # 1: ADD \$ _____

ADDITIVE ALTERNATE # 2: ADD \$ _____

END OF SECTION

**SECTION 005000
CONTRACTING FORMS AND SUPPLEMENTS**

PART 1 GENERAL

1.01 AGREEMENT AND CONDITIONS OF THE CONTRACT

- A. Section 007300 - Supplementary Conditions.
- B. AIA General Conditions (as amended by Section 00 7300.) are based on
- C. Owner's General Conditions.

1.02 FORMS

- A. Use the following forms for the specified purposes unless otherwise indicated elsewhere in Contract Documents.
- B. Bond Forms:
 - 1. Bid Bond Form: AIA A310.
 - 2. Performance and Payment Bond Form: AIA A312.
- C. Post-Award Certificates and Other Forms:
 - 1. Submittal Transmittal Letter Form: _____.
 - 2. Certificate of Insurance Form: ACORD Certificate of Insurance 25.
 - a. Supplemental Attachment: AIA G715
 - 3. Schedule of Values Form: AIA G703.
 - 4. Application for Payment Forms: AIA G702 with AIA G703 (for Contractors).
- D. Clarification and Modification Forms:
 - 1. Architect's Supplemental Instructions Form: AIA G710.
 - 2. Construction Change Directive Form: AIA G714.
 - 3. Change Order Form: AIA G701.
- E. Closeout Forms:
 - 1. Certificate of Substantial Completion Form: AIA G704.

1.03 REFERENCE STANDARDS

- A. AIA A101 - Standard Form of Agreement Between Owner and Contractor where the basis of Payment is a Stipulated Sum; 2017.
- B. AIA A201 - General Conditions of the Contract for Construction; 2017.
- C. AIA A310 - Bid Bond; 2010.
- D. AIA A312 - Performance Bond and Payment Bond; 2010.
- E. AIA G701 - Change Order; 2017.
- F. AIA G702 - Application and Certificate for Payment; 1992.
- G. AIA G703 - Continuation Sheet; 1992.
- H. AIA G704 - Certificate of Substantial Completion; 2017.
- I. AIA G715 - Supplemental Attachment for ACORD Certificate of Insurance 25; 2017.
- J. AIA G710 - Architect's Supplemental Instructions; 2017.
- K. AIA G714 - Construction Change Directive; 2017.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION

SECTION 00 7300

TOWN OF VINTON WAR MEMORIAL RENOVATION PROJECT SUPPLEMENTARY CONDITIONS

The following Supplementary Conditions modify the General Conditions of the Contract for Construction, AIA Document A201-2017 (“AIA General Conditions”), for the Town of Vinton War Memorial Renovation Project (“Project”). The Project is further described in Section 00 0102, Part 1, Subpart 1.02(A) of the Specifications. Where a portion of the AIA General Conditions is modified or deleted by these Supplementary Conditions, the unaltered portions of the AIA General Conditions shall remain in effect. The terms used in these Supplementary Conditions that are defined in the AIA General Conditions have the meanings assigned to them in the AIA General Conditions.

ARTICLE 1; GENERAL PROVISIONS

§ 1.1 BASIC DEFINITIONS

- a. Delete Subparagraph 1.1.1 and replace it with the following:

§ 1.1.1 THE CONTRACT DOCUMENTS

The terms “Contract” and “Contract Documents” shall mean and include: (i) the Procurement Documents (Document 00 0101 through Document 00 5000), including any subsequently issued Addenda to the Procurement Documents (collectively, the “ITB”); (ii) the completed and signed Bid Form and Bid Bond; (iii) the AIA Document A101-2017 (“Agreement”); (iv) the Owner’s General Conditions; (v) AIA Document A201-2017, General Conditions of the Contract or Construction (“AIA General Conditions”), as amended by these Supplementary Conditions; (vi) the Drawings (listed in Section 00 0115) and Specifications (Division 01 through Division 46) prepared by Hughes Associates Architects & Engineers (“Architect”) and included with the ITB; (vii) the Performance and Payment Bonds; (viii) any Change Orders or Change Directives; and (ix) any Modifications to the Contract. Anything called for by one of the Contract Documents and not called for by the others shall be of like effect as if required or called for by all Contract Documents. To the extent practicable, the terms and conditions of the Contract Documents will be read consistently with each other. In the case of conflict between the terms and conditions of the Contract Documents, the Order of Precedence of the Contract Documents shall be as follows: (i) the Owner’s General Conditions; (ii) the AIA General Conditions as amended by these Supplementary Conditions; (iii) the Drawings and Specifications; (iv) the Agreement, including any Modifications, Change Orders or Change Directives; (v) the ITB; (vi) the completed and signed Bid Form; and (vii) the Bonds.

- b. Delete Subparagraph 1.1.3 and replace it with the following:

§ 1.1.3 THE WORK

The term “Work” means the construction and services required by the Contract Documents, whether completed or partially completed, and includes all other labor, materials, equipment, supplies, and services reasonably inferable from the Contract Documents as necessary to be provided by the Contractor to fulfill its obligations under the Contract Documents to complete the Project, and all other labor, materials, services, and items required to produce fully connected, complete, code-compliant, operational and functional systems and finishes. The Work may constitute the whole or a part of the Project.

- c. Add the following Subparagraphs 1.1.5.1, 1.1.5.2, 1.1.5.3, and 1.1.5.4 to 1.1.5:

§ 1.1.5.1 Dimensions indicated on the Drawings must be followed. Do not scale Drawings. Conflicts, discrepancies, and omissions shall be resolved prior to ordering or installing materials and equipment.

§ 1.1.5.2 Provide critical clearances, tolerances, and dimensions as indicated. These critical dimensions are not optional. The Architect must be advised immediately if existing conditions do not permit critical dimensions as shown. No consideration will be given any claim based on differences between the actual dimensions and those indicated on the Drawings.

§ 1.1.5.3 Any modifications to the Drawings must be approved by the Architect. The Architect's decision in matters relating to artistic effect and structural integrity will be final if consistent with the intent of the Contract Documents.

§ 1.1.5.4 The Drawings are developed to communicate design intent. Assemblies or components required to achieve this design intent are subject to approval by the Architect.

- d. Delete the second sentence of Subparagraph 1.1.8.

§ 1.2 CORRELATION AND INTENT OF THE CONTRACT DOCUMENTS

- a. Add the following language at the end of Subparagraph 1.2.1 after “results”:

and to perform the Work consistent with the provisions of Section 1.1.3 of these AIA General Conditions, as amended above. All Work mentioned or indicated in the Contract Documents shall be performed by or on behalf of Contractor as part of this Contract, unless it is specifically indicated in the Contract Documents that such Work is to be performed by others.

- b. Delete the final sentence of Subparagraph 1.2.1.1 and replace it with the following:

In such case the Contract Documents shall be construed, to the fullest extent permitted by law, in favor of the interpretation that will provide for the more substantial and complete performance of the Work. If there is any conflict between the provisions of the Contract documents and any referenced standard specification, manuals, or codes of technical societies, organizations, or associations, the language of the Contract Documents will take precedence over that of any standard specification, manual, or codes.

- c. Add the following Subparagraphs 1.2.1.2, 1.2.1.3, and 1.2.1.4 to 1.2.1:

§ 1.2.1.2 Wherever in the Contract Documents the words “as approved,” “as directed,” “as required,” “acceptable,” “satisfactory” and other similar words are used with reference to the Work or its performance, and without further qualification, they shall mean as approved, as directed, and as required by the Architect and Owner and acceptable, satisfactory, etc., to the Architect and Owner.

§ 1.2.1.3 In case of conflict in the Contract Documents, the Architect shall interpret or construe the Contract Documents so as to assure the most substantial and complete performance of the Work.

§ 1.2.1.4 The general character of the detailed work is shown on the Drawings, but the Contractor may propose minor modifications on the Shop Drawings or mark-ups. The Contractor shall work out any detail in relation to its location and its connection to other parts of the Work. Where on any drawings a portion of the Work is drawn out and the remainder is indicated in outline, the parts drawn out shall also apply to all other like portions of the Work. Where details or conditions are indicated, such details or conditions shall be continued throughout the courses or parts in which they occur and shall also apply to all other similar parts of the Work unless otherwise indicated or specifically noted.

- d. Add the following Subparagraph 1.2.4 to 1.2:

§ 1.2.4 In the Contract Documents where discrepancies are apparent, detailed information is lacking, or interpretation is not clear, the Contractor shall secure required information from the Architect before proceeding with the Work. Items that are detailed and/or specified but not distinctly located on the Drawings shall be located by the Architect.

§ 1.5 OWNERSHIP AND USE OF DRAWINGS, SPECIFICATIONS AND OTHER INSTRUMENTS OF SERVICE

- a. Delete Subparagraph 1.5.1 and replace it with the following:

§ 1.5.1 Owner owns the Instruments of Service, including the Drawings and Specifications, and will retain all common law, statutory and other reserved rights, including copyrights. They may only be used for this Project. The Contractor, Subcontractors, Sub-subcontractors, and material or equipment suppliers shall not own or claim a copyright in the Instruments of Service. Submittal or distribution to meet official regulatory requirements or for other purposes in connection with this Project is not to be construed as publication in derogation of the Architect's, Owner's or Architect's consultants' reserved rights.

§ 1.6 NOTICE

- a. Add the following sentence to the end of Subparagraph 1.6.1:

The foregoing notwithstanding, whenever the Contractor is required to notify or give notice to the Owner, all such notices to the Owner shall be provided in writing, shall be delivered to the Owner's Authorized Representative identified in the Contract Documents, and, to be effective, shall be delivered in person, delivered by certified or registered mail, or delivered by courier providing proof of delivery. The intent of the foregoing sentence is to require written notice to Owner at all times and under all circumstances.

ARTICLE 2; OWNER

§ 2.1 GENERAL

- a. Add the following at the end of Subparagraph 2.1.1:

All written communications on the Project shall be directed to and include the Owner and all significant issues with respect to the Work and/or this Contract shall be communicated by Contractor directly to Owner. Contractor acknowledges that neither Architect nor any

other consultant to Owner has authority to authorize any increase in the Contract Sum, any adjustment to the Contract Time, or any additional compensation or payment to Contractor without the prior and written approval of Owner.

- b. Delete Subparagraph 2.1.2 in its entirety.

§ 2.2 EVIDENCE OF THE OWNER'S FINANCIAL ARRANGEMENTS

- a. Delete Section 2.2, including all Subparagraphs, in its entirety.

§ 2.3 INFORMATION AND SERVICES REQUIRED OF THE OWNER

- a. Delete Subparagraph 2.3.1 in its entirety.
- b. On lines 1 and 2 of Subparagraph 2.3.3, delete the words “to whom the Contractor has no reasonable objection and”.
- c. Delete Subparagraphs 2.3.4 and 2.3.5 in their entirety.
- d. Delete Subparagraph 2.3.5 and replace it with the following:

§ 2.3.5 Architect will provide the Project Manual, including the Drawings and Specifications, only in digital format through a digital link. Contractor will be responsible for printing copies of the Project Manual.

- e. Delete Subparagraph 2.3.6 and replace it with the following:

§ 2.3.6 The Contractor will be furnished free of charge 5 copies of Drawings and Project Manuals. Additional sets will be furnished at the cost of reproduction, postage, and handling.

§ 2.4 OWNER'S RIGHT TO STOP WORK

- a. Delete “repeatedly” from the second line of Subparagraph 2.4.

§ 2.5 OWNER'S RIGHT TO CARRY OUT THE WORK

- a. In Subparagraph 2.5, delete everything after the first sentence and replace it with the following:

Owner will notify the Architect of such action and the amount to be charged to the Contractor and will consider any comments of the Architect. Thereafter, the Architect shall, pursuant to Section 9.5.1, withhold or nullify Certificates for Payment in whole or in part, to the extent necessary to reimburse the Owner for the cost of correcting such deficiencies, including Owner's expenses and compensation for the Architect's additional services made necessary by such default, neglect or failure. If current and future payment are not sufficient to cover amounts due to the Owner, the Contractor shall pay the difference to the Owner.

ARTICLE 3; CONTRACTOR

§ 3.1 GENERAL

- a. Add the following language at the end of Subparagraph 3.1.1:

Contractor shall not assign or change supervisory personnel or utilize any organizational chain of command to the extent disapproved by Owner. Contractor's Superintendent and Project Manager shall not be discontinued, replaced or re-assigned without the prior written consent of Owner, which such consent shall not be unreasonably withheld.

§ 3.2 REVIEW OF CONTRACT DOCUMENTS AND FIELD CONDITIONS BY CONTRACTOR

- a. Edit Subparagraph 3.2.1 as follows:

On line 2, delete the word "generally."

Add the following language to the end of the Subparagraph:

Contractor has evaluated and satisfied itself as to the conditions and limitations under which the Work is to be performed including, without limitation (1) the location, condition, layout and physical conditions of the Project site and surrounding area, (2) generally prevailing climatic conditions, (3) availability and cost of materials, tools and equipment, (4) geotechnical data, soil and subsurface conditions, (5) parking, traffic and logistics, and (6) other similar issues. Contractor shall not be entitled to any adjustment in the Contract Time in connection with any failure of Contractor or any Subcontractor to comply with the requirements, or on account of the conditions of this subparagraph 3.2.1.

- b. After Subparagraph 3.2.2, add the following Subparagraphs:

§ 3.2.2.1 Dimensions of the Work shall not be determined by scale or rule. Figured dimensions shall be used at all times.

§ 3.2.2.2 The Contractor shall verify all dimensions by measurement at the job site and shall take any and all other measurements necessary to verify the Drawings and to properly lay out the Work.

§ 3.2.2.3 The Contractor shall study the Contract Documents sufficiently in advance of the actual layout of the Work to allow the Contract Documents to be interpreted or modified by the Architect.

- c. On lines 3 and 4 of Subparagraph 3.2.3, add "and Owner" after "Architect".

- d. Add the following to the end of Subparagraph 3.2.4 after "public authorities":

, unless Contractor recognized (or based on the standards of performance ordinarily provided by general contractors working under the same or similar conditions, should have recognized) such error, inconsistency, omission or difference and failed to report it to (and obtain direction from) Owner and Architect prior to proceeding with the affected Work.

- e. Add Subparagraph 3.2.5 as follows:

§ 3.2.5 Owner shall be entitled to reimbursement from Contractor for amounts paid to the Architect for the Architect's evaluating and responding to Contractor's requests for information that are not prepared in accordance with the Contract Documents or where the requested information was available to Contractor from a careful study and comparison of the Contract Documents, field conditions other Owner-provided information, Contractor-prepared coordination drawings, or prior Project correspondence or documentation.

§ 3.3 SUPERVISION AND CONSTRUCTION PROCEDURES

- a. Delete "to the Owner" from the first line of Subparagraph 3.3.2.

§ 3.4 LABOR AND MATERIALS

- a. Add the following Subparagraphs 3.4.1.1 and 3.4.1.2 to 3.4.1:

§ 3.4.1.1 The Contractor shall use only new materials for the Work of this Project. Reuse of existing materials or the use of other salvaged materials is acceptable only where specifically noted in the Construction Documents.

§3.4.1.2 The Contractor shall provide all special trims, moldings, and special shaped materials which are required for the satisfactory completion of the Work. The Contractor shall provide all necessary fasteners, bracing, and supports required for the stable and secure installation of the Work.

- b. Add Subparagraph 3.4.2.1 as follows:

§ 3.4.2.1 After the Contract has been executed, the Owner and Architect will consider a formal request for the substitution of products in place of those specified only under the conditions set forth in Document 01 2500 and Document 01 6000 from the Specifications.

- c. Add Subparagraph 3.4.2.2 as follows:

§ 3.4.2.2 Owner shall be entitled to reimbursement from Contractor for amounts paid to the Architect for reviewing Contractor's proposed substitutions and to make agreed-upon changes in the Drawings and Specifications resulting from such substitutions.

§ 3.5 WARRANTY

- a. At the end of Subparagraph 3.5.1, add the following sentence:

All guarantees or warranties of equipment, systems or materials furnished to Contractor or Subcontractors by any manufacturer or supplier shall be deemed to run to the benefit of Owner and are (and shall be) assigned to Owner. These warranties are in addition to, not in lieu of, all other warranties and guarantees contained in or required by the Contract Documents.

§ 3.7 PERMITS, FEES, NOTICES, AND COMPLIANCE WITH LAWS

- a. On line 1 of Subparagraph 3.7.3, delete the words "knowing it to be."
- b. Delete Subparagraph 3.7.4 and replace it with the following:

§ 3.7.4 Concealed or Unknown Conditions. By executing the Agreement, Contractor represents that it has visited the site where the Work is to be constructed, has examined carefully all the Contract Documents upon which the Contract Sum is based, has reviewed all information, data and documents regarding the conditions at the site made available to Contractor by Owner prior to the execution of the Agreement and has acquainted itself with all other conditions relevant to the Work, including, but not limited to any physical conditions or logistical restraints relating to or affecting the means, methods, staging, layout, delivery or performance of the Work. If the Contractor encounters conditions at the site that are different from those about which Contractor had notice based on the information made available to Contractor by Owner or Architect prior to the execution of the Agreement (including, but not limited to the information set forth in the Contract Documents or in reports, studies or evaluations referenced therein or provided by Owner or Architect to Contractor) and/or based on a reasonably prudent visit to and examination of the site prior to the execution of the Agreement and/or based on facts or circumstances disclosed by the information provided to Contractor by Owner or Architect or other conditions discoverable at the site by Contractor prior to commencement of the Work, such as (1) subsurface or otherwise concealed physical conditions that differ materially from those indicated in the information provided to Contractor or (2) undisclosed and unknown physical conditions of an unusual nature, that differ materially from those ordinarily found to exist and generally recognized as inherent in construction activities of the character provided for in the Contract Documents, the Contractor shall provide notice to the Owner and the Architect before such conditions are disturbed and in no event later than ten (10) days after first observance of the conditions. The Contractor shall perform no Work involving or affected by such condition until after notifying Owner and receiving specific directions from Owner as to the performance of such Work. The Architect and Owner will then investigate such conditions and, if they differ materially from those about which Contractor had notice based on the information made available to Contractor by Owner or Architect prior to the execution of the Agreement and cause an increase in the Cost of the Work, or a delay in the performance of the Work, Contractor shall be entitled to an increase in the Contract Sum calculated pursuant to the applicable provisions of this Agreement, together with an extension of the Contract Time measured by the number of days or portions thereof, if any, that the Substantial Completion of the Work is actually delayed as a direct result of the existence of the obstruction, difficulty, or condition (provided, however, that if the required extension of time is not granted, Contractor shall be entitled only to the damage remedies set forth herein). If the conditions at the site are not materially different from those about which Contractor had notice based on the information made available to Contractor by Owner prior to the execution of the Agreement or based on a reasonably prudent visit to and examination of the site prior to the execution of the Agreement or based on facts or circumstances disclosed by the information provided to Contractor by Owner or Architect or other conditions discoverable at the site by Contractor prior to commencement of the Work, Owner shall so notify Contractor that there will be no adjustment to the Contract Sum and/or Contract Time, state the reasons therefor, and Contractor may thereafter dispute the determination as provided in the Contract Documents.

§ 3.8 ALLOWANCES

- a. Delete the first sentence of Subparagraph 3.8.1 and replace it with the following:

§ 3.8.1 The Contractor shall include in the Contract Sum only those allowances expressly identified in (and allowed by) the Contract Documents.

- b. In Subparagraph 3.8.3, add “after notice to the Owner and Architect by the Contractor.” at the end of the sentence.

§ 3.9 SUPERINTENDENT

- a. In Subparagraph 3.9.2, delete “as soon as practicable after” and replace it with “within 14 days of the” in the first line.
- b. Delete “and timely” from the second line of Subparagraph 3.9.3.

§ 3.10 CONTRACTOR’S CONSTRUCTION AND SUBMITTAL SCHEDULES

- a. Delete Subparagraph 3.10.1 and replace it with the following:

§ 3.10.1.1 The Contractor must prepare a construction schedule and submit it to the Owner and Architect for their review. The schedule shall not exceed the Contract Time established in the Contract Documents and shall provide for prompt and efficient execution of the Work. The schedule shall show the sequence and interdependence of all activities required for complete performance of the Contractor's Work. The schedule shall provide a graphic representation of all activities and events that will occur in the prosecution of the Work and set forth all critical dates that must be met to ensure timely and orderly completion of the Work within the Contract Time prescribed in the Contract Documents. The Contractor may show early completion of the Work on the schedule, should it so elect, but the Contractor shall have no claim for delay damages or constructive acceleration should any delay, whatever the cause, preclude the Contractor from finishing the Project at any point prior to the completion date set forth in the Contract Documents. Upon receipt, the Owner and Architect shall review the schedule and offer any comments they may have. Such review shall be for information purposes only and shall not constitute endorsement of any errors or omissions that may appear in the schedule or its reasonableness.

§ 3.10.1.2 The Contractor must update the schedule each month to reflect the current status of the Project. The updates shall show percent completion including actual start and finish dates and remaining duration for all current activities. The updated schedule shall be submitted with the Contractor’s Application for Payment. The submittal of the revised schedule shall be a conditional precedent to the Owner’s obligation to pay the Contractor any monies due on the pending Application for Payment.

- b. Delete “general” from the first line of Subparagraph 3.10.3.
- c. Add the following Subparagraphs to Article 3.10:

§ 3.10.4 In the event that the Contractor should ever determine during the course of the Project that its prosecution of the Work has fallen behind the current schedule, it shall prepare a recovery schedule to permit completion of the Project within the Contract Time. The Contractor shall devote all required labor, materials, and equipment to comply with the recovery schedule, including, if necessary, the employment of additional Subcontractors and/or manpower and the scheduling of additional shifts, overtime, and weekend Work, all at the Contractor’s sole expense. TIME IS OF THE ESSENCE.

§ 3.10.5 In the event that the Project is delayed beyond the Contract Time, the Contractor will be obligated to pay the Owner, in addition to any liquidated damages called for in the Contract Documents or any delay damages permitted pursuant thereto, a sum equal to the Owner's obligation to pay the Architect for providing additional Construction Contract Administration services beyond the Contract Time set forth in the Contract Documents.

§ 3.11 DOCUMENTS AND SAMPLES AT THE SITE

- a. Add the following sentences to the end of Subparagraph 3.11:

Among other things, the marked documents shall reflect (i) all deviations from the Drawings made during construction, (ii) details in the Work not previously shown on the Drawings, (iii) changes to existing conditions or existing conditions found to differ from those shown on the Drawings, and (iv) the actual installed position of equipment, controls and other system information required for Owner's use and maintenance of the Work. These shall be delivered to Owner and Architect upon Substantial Completion of the Work (or any termination of this Contract).

§ 3.12 SHOP DRAWINGS, PRODUCT DATA AND SAMPLES

- a. Add the following at the end of Subparagraph 3.12.6:

All copies of Shop Drawings submitted for approval shall bear the following statement: "Checked and certified correct for conformance with the Contract Documents." This statement shall be dated and signed by the Contractor and shall appear on each submittal. One copy of each approved submittal shall be kept at the job site at all times.

- b. On line 1 of Subparagraph 3.12.10, delete the word "not." On line 2 of Subparagraph 3.12.10, replace the word "unless" with the word "when" and delete the word "specifically." On line 3 of Subparagraph 3.12.10, replace the words "or unless" with the words "and when."

- c. Delete the word "specifically" on line 2 of Subparagraph 3.12.10.1, and delete the second sentence of Subparagraph 3.12.10.1.

- d. Add Subparagraph 3.12.11 as follows:

§ 3.12.11 The Architect's review of Contractor's submittals will be limited to examination of an initial submittal and one (1) resubmittal. Owner shall be entitled to obtain reimbursement from Contractor for amounts paid to the Architect for evaluation of any additional resubmittals.

- e. Add Subparagraph 3.12.12 as follows:

§ 3.12.12 The Contractor shall not reproduce all or any portion of the Contract Documents. Unless otherwise directed or specified, three (3) copies of each Shop Drawing shall be submitted with each submittal or re-submittal. Unless otherwise directed or specified, three (3) copies of Product Data shall be submitted with each submittal or re-submittal. Unless otherwise directed or specified, samples shall be submitted in duplicate and shall be

properly labeled, bearing the name and quality of material, name of manufacturer, name of Project, name of Contractor, and date of submission.

§ 3.14 CUTTING AND PATCHING

- a. Add the following Subparagraph 3.14.3 to 3.14:

§ 3.14.3 All patching shall be performed by mechanics of the trades dictated by the materials used in the patching operations.

§ 3.15 CLEANING UP

- a. Add the following sentences at the end of Subparagraph 3.15.1:

Contractor must comply with all erosion control, stormwater runoff and dust control ordinances and regulations. Contractor shall remove all spillage and tracking arising from performance of the Work from such areas and shall establish a regular maintenance program to minimize accumulation of dirt and dust upon such areas.

- b. Add the following Subparagraph 3.15.3 to 3.15:

§ 3.15.3 The Contractor must provide an onsite waste receptacle or receptacles of sufficient size and capacity to dispose of waste materials and rubbish that accumulate on the site. These receptacles shall be emptied on a regular basis, as needed. The Contractor shall dispose of all waste materials and rubbish at approved site for waste disposal.

- c. Add the following Subparagraph 3.15.4 to 3.15:

§ 3.15.4 The Contractor must leave the completed Work in conditions for occupancy by the Owner such that no cleaning, waxing, polishing, or other janitorial operations are required.

- d. Add the following Subparagraph 3.15.5 to 3.15:

§ 3.15.5 Contractor shall be solely responsible for protecting and securing materials and equipment stored on the site. Contractor shall require all persons performing work on the Project to comply with any and all policies and rules established by Owner relating to access or behavior on the Project site including any policies or rules regulating parking, access to the building, emergency ingress, egress or parking, noise, smoking, hygiene, food services, visitor privileges, restricted areas and elevator use, and privacy and confidentiality. The duty of Contractor to maintain discipline and good order in compliance with Owner's policies rules and regulations pursuant to the Contract Documents shall apply to Contractor's employees and to Subcontractors, sub-subcontractors, materialmen and suppliers, and their respective employees.

§ 3.18 INDEMNIFICATION

- a. Delete Subparagraph 3.18.1 and replace it with the following:

§ 3.18.1 To the fullest extent permitted by law, the Contractor shall indemnify and hold harmless the Owner, Architect, and each of their respective councilmembers, agents,

officers, directors, officials, employees, consultants, and contractors of any of them from and against all claims, costs, losses, fines, penalties, expenses, judgments, claims, liabilities and damages (including but not limited to all fees and charges of engineers, architects, attorneys' and other professionals and all court or other dispute resolution costs) arising out of or relating to: (i) the performance of the Work, if and to the fullest extent that any such claim, damage, loss or expense is caused, in whole or in part, by the errors, acts, omissions, breach of contract, or negligence of the Contractor, any Subcontractor or anyone for whose acts any of them may be liable; (ii) any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device, not specified in the Contract Documents (iii) any Work performed by Contractor that is contrary to laws or regulations, including without limitation (a) any violation of or failure to comply with any law, statute, ordinance, rule, regulation, code or requirement of the Work by Contractor, any Subcontractor or any person or entity for whom either is responsible; (b) any means, methods, techniques, procedures or sequences of execution or performance of Work; and/or (c) any failure to secure or pay for any permits, fees, licenses, approvals and inspections Contractor is required to provide by the Contract Documents, or any violation of any permit or other approval of a public authority applicable to the Work, by Contractor, any Subcontractor or any person or entity for whom either is responsible; (iv) any claim or action, legal or equitable, brought by other occupants or adjacent landowners against Owner or any other party indemnified hereunder to the full extent caused, in whole or in part, by or based upon Contractor's performance of the Work or failure to perform the Work; (v) any claim, damage, loss or expense attributable to bodily injury, sickness, disease or death, or injury to or destruction of tangible property, if and to the full extent that any such claim, damage, loss or expense is caused, in whole or in part, by the acts, omissions, breach of contract or negligence of the Contractor, any Subcontractor, or anyone for whose acts any of them may be liable; and (vi) the failure of Contractor to pay any Subcontractor, sub-subcontractor, materialman or supplier as provided in this Contract for Work performed by such person or entity. If any such claim, damage, loss or expense is caused in part by the Owner (or another person or entity for whom Owner is responsible) Contractor shall not be responsible to indemnify Owner for those specific damages, losses or expenses caused by the acts or omissions of Owner (or such other person or entity for whom Owner is responsible) but only to the extent they are so caused by the acts of omissions of Owner or other persons or entities for whom Owner is responsible. The indemnity obligation in this Section shall not be construed to negate, abridge, or otherwise reduce any other right or obligation of indemnity which would otherwise exist as to any party or person described in this Section 3.18. This indemnification shall survive acceptance and/or completion of the Work and any termination of this Contract. Nothing herein shall limit Contractor's other indemnification obligations as stated in the Contract Documents.

§ 3.19 DEMOLITION/REMEDATION

- a. Add new **§ 3.19 DEMOLITION/REMEDATION** and new Subparagraph 3.19.1 as follows:

§ 3.19.1 If the Work involves demolition and/or remediation or disposal of hazardous materials, then Contractor shall ensure that all required approvals, permits, licenses and surveys have been obtained prior to commencing with the applicable Work and shall handle, transport, remove and dispose of all such items in accordance with all applicable EPA, OSHA and other local, municipal, state or federal requirements (using properly

licensed and certified personnel as necessary) and shall maintain (and provide to Owner upon request) all documents, manifests and other information reflecting the use, handling and disposal of such materials in accordance with such laws and requirements. Contractor shall be responsible for, and shall indemnify and hold Owner harmless from, all costs, fines, penalties or damages arising from Contractor's failure to comply with the provisions of this Section 3.19.1.

ARTICLE 4; ARCHITECT

§ 4.1 GENERAL

- a. On line 2 of Subparagraph 4.1.2, delete the word "Contractor,".

§ 4.2 ADMINISTRATION OF THE CONTRACT

- a. On line 2 of Subparagraph 4.2.2, delete the word "generally."
- b. Add new Subparagraph 4.2.2.1 as follows:

§ 4.2.2.1 Owner is entitled to reimbursement from Contractor for amounts paid to the Architect for site visits made necessary by the fault of Contractor or by defects and deficiencies in the Work.

- c. Add new Subparagraph 4.2.4.1 as follows:

§ 4.2.4.1 At the Pre-Construction Conference, the Architect will designate his contact person for the duration of the project. The Contractor shall always communicate in writing with the Architect's designated representative. From time to time, the Architect may designate members of its staff to correspond with the Contractor; in such case, the Contractor shall respond directly with that individual. If the Architect must change its contact person, it will advise the Contractor in writing who the new contact is. The purpose of this requirement is to assist the Contractor in maintaining continuity throughout the life of the project.

- d. On line 1 of Subparagraph 4.2.9, replace the word "determine" with "assist the Owner in determining".
- e. In Subparagraph 4.2.11, revise the first sentence to read as follows: "The Architect will provide Owner with an initial interpretation and decision, subject to final determination by Owner, of matters concerning performance under, and the requirements of, the Contract Documents on written request of either Owner or Contractor."
- f. Delete the last sentence of Subparagraph 4.2.12, which begins with the word "When", and replace it with the following sentence: "In its capacity as interpreter and judge, the Architect shall use its best efforts to secure faithful performance by the Contractor."
- g. In Subparagraph 4.2.13, delete the word "Architect's" and replace it with the word "Owner's."

ARTICLE 5; SUBCONTRACTORS

§ 5.2 AWARD OF SUBCONTRACTS AND OTHER CONTRACTS FOR PORTIONS OF THE WORK

- a. Add the following Subparagraph 5.2.1.1 to 5.2.1:
§ 5.2.1.1 The list of Subcontractors and material suppliers shall be submitted to the Architect not later than 10 calendar days after receipt of Notice to Proceed.
- b. On line 2 of Subparagraph 5.2.2, delete the words “and timely.”

§ 5.3 SUBCONTRACTUAL RELATIONS

- a. Add new Subparagraph 5.3.1 as follows:

§ 5.3.1 The Contractor shall not be released from any part of its liabilities or obligations under the Contract should any Subcontractors or material suppliers fail to perform in a satisfactory manner the Work undertaken by him.

- b. Add new Subparagraph 5.3.2 as follows:

§ 5.3.2 Except as provided in Paragraph 5.4, nothing contained in this Contract shall be construed as creating a contractual relationship between the Owner and any Subcontractor. The Specifications do not control the Contractor in dividing the Work among Subcontractors, nor do they limit the work performed by trade.

- c. Add new Subparagraph 5.3.3 as follows:

§ 5.3.3 The Contractor shall be responsible to the Owner for acts and omissions of the Contractor’s employees, and of all Subcontractors and their employees and Sub-subcontractors. The Contractor shall also be responsible for the coordination of the work of the Subcontractors, Sub-subcontractors, and suppliers.

- d. Add new Subparagraph 5.3.4 as follows:

§ 5.3.4 The Architect will not undertake to settle any differences between or among the Contractor and its Subcontractors, Sub-subcontractors, and suppliers.

- e. Add new Subparagraph 5.3.5 as follows:

§ 5.3.5 The Contractor shall employ specialty subcontractors when required by the Specifications, at no additional expense to the Owner. “Specialty subcontractors” are subcontractors regularly engaged in the manufacture or installation of Contract items. Specialty subcontractors shall select and combine the materials involved and maintain and have available workmen skilled in the specified work. Specialty subcontractors shall be the manufacturer, licensed by the manufacturers as installers, or work under the direct supervision of the manufacturers.

- f. Add new Subparagraph 5.3.6 as follows:

§ 5.3.6 All work shall be performed by workers skilled in the trade to which they are assigned in performance of the Work.

§ 5.4 CONTINGENT ASSIGNMENT OF SUBCONTRACTS

- a. Revise the last sentence of Subparagraph 5.4.1 to read:

When the Owner accepts the assignment of a subcontract agreement, the Owner assumes the Contractor's rights under the subcontract and any obligations under the subcontract accruing after the date of the assignment.

- b. Delete Subparagraph 5.4.2 in its entirety.
- c. In Subparagraph 5.4.3, delete the second sentence.

ARTICLE 7; CHANGES IN THE WORK

§ 7.1 GENERAL

- a. Delete Subparagraph 7.1.2 and replace it with the following:

§ 7.1.2 A Change Order shall be based upon agreement among the Owner and Contractor; a Construction Change Directive may be issued by the Owner and may or may not be agreed to by the Contractor; an order for a minor change in the Work may be issued by the Architect alone.

- b. Add the following Subparagraphs to 7.1:

§ 7.1.4 "Changes in the Work" of the General Conditions addresses how Change Orders, Change Directives, and Modifications are to be completed. Any change which has been requested by the Owner or the Architect will be issued by a written "Architect's Supplemental Instructions" or "Work Changes Proposal Request". The Architect will issue a written "Architect's Supplemental Instructions" for a minor change that does not affect the Contract Sum or Contract Time (whether issued at the request of the Owner, Architect, or Contractor). If the Contractor believes that additional compensation and/or time is required because of the change, it should not sign this form. Instead, it should immediately notify the Architect in writing of its position and submit a proposal for the changes in the Work. If the above situation occurs, the Architect may, at this time, send the Contractor a "Work Changes Proposal Request".

§ 7.1.5 If the Architect is reasonably certain that his instructions to the Contractor will require additional money and/or time for completion, it will initially send his instructions to the Contractor on the "Work Changes Proposal Request" form. The Contractor's proposal shall state its itemized estimate for any requested additional money (in accordance with § 7.1.7 below) and/or time. This written proposal must precede any Work that may be done by the Contractor as a result of the "Architect's Supplemental Instructions" or "Work Changes Proposal Request". Should the Contractor unilaterally proceed with the Work as requested by these forms without having advised the Architect and Owner in writing of his request for a change in price or time and without having received the Owner's written authorization, it may be denied such increase. When the Architect receives the Contractor's proposal for a change in contract price and/or extension of time, the Architect will then prepare a written Change Order to cover this increase. The Contractor should not proceed with additional Work until the written Change Order has been approved and signed by the Owner's Authorized Representative.

§ 7.1.6 If a situation occurs which requires additional Work to be performed immediately, the Owner will issue a “Construction Change Directive” in accordance with the General Conditions. The “Construction Change Directive” will be prepared and signed by the Architect and will be effective after it has been signed by the Owner. After it has been executed by the Contractor, a Change Order shall be prepared by the Architect.

§ 7.1.7 For clarity, any change in the Work which will result in an increase or decrease in the Contract Sum or a change in the Contract Time must be approved in writing by the Owner’s Authorized Representative.

§ 7.1.8 If changes in the work provide for an adjustment in the Contract Sum, the adjustment (increase or decrease) shall be based on the following, unless otherwise noted:

- .1 Material quantities and unit prices (separated into trades; include sales tax).
- .2 Labor costs (employees hourly pay rate not billing rate).
- .3 Labor burden, applied to labor only, including but not limited to, worker’s compensation insurance, applicable payroll taxes, and fringe benefits required by agreement or custom. Contractor shall be required to substantiate the labor burden percentage applied to any change in contract amount. Labor burden percentage shall not exceed 30 percent of Labor costs in any case.
- .4 Construction equipment cost.
- .5 Overhead and profit combined (on claims for net increase only), as defined in Subparagraph 7.3.11.
- .6 Cost of Premiums/Bonds directly related to the change (for General Contractor only). Evidence of additional premium/bond costs shall be submitted with claim.

§ 7.2 CHANGE ORDERS

- a. In Subparagraph 7.2.1, delete “prepared by the Architect and signed by the Owner, Contractor, and Architect” and replace it with “between the Owner and Contractor”.

§ 7.3 CONSTRUCTION CHANGE DIRECTIVES

- a. In Subparagraph 7.3.1, delete “prepared by the Architect and signed by the Owner and Architect,” and replace it with “from the Owner”.
- b. In the first sentence of Subparagraph 7.3.4, delete the words “an amount for overhead and profit as set forth in the Agreement, or if no such amount is set forth in the Agreement, a reasonable amount” and substitute “an allowance for overhead and profit in accordance with Clause 7.3.11.1 through 7.3.11.6 below.”
- c. Add the following Subparagraph 7.3.11 to 7.3:

§ 7.3.11 In Subparagraph 7.3.4, the allowance for the combined overhead and profit included in the total cost to the Owner shall not exceed the following:

- .1 For the Contractor, for Work performed by the Contractor’s own forces, 20 percent of the cost.
- .2 For the Contractor, for Work performed by the Contractor’s Subcontractors, 10 percent of the amount due the Subcontractor.
- .3 For each Subcontractor or Sub-subcontractor involved, for Work performed by that Subcontractor’s or Sub-subcontractor’s own forces, 15 percent of the cost.

.4 For each Subcontractor, for Work performed by the Subcontractor's Sub-subcontractors, 10 percent of the amount due the Sub-subcontractor.

.5 Cost to which overhead and profit is to be applied shall be determined in accordance with Subparagraph 7.3.4.

.6 In order to facilitate checking of quotations for extras or credits, all proposals, except those so minor that their propriety can be seen by inspection, shall be accompanied by complete itemization of costs including labor, materials, and Subcontracts. Labor and materials shall be itemized in the manner described above. Where major cost items are Subcontracts, they shall be itemized also. In no case will a change involving over \$100 be approved without such itemization.

ARTICLE 8; TIME

§ 8.1 DEFINITIONS

- a. Delete Subparagraph 8.1.2 and replace it with the following:

§ 8.1.2 The Commencement Date for the Work is the date established in the Notice to Proceed. The date shall not be postponed by the failure to act of the Contractor or of persons or entities for whom the Contractor is responsible.

§ 8.2 PROGRESS AND COMPLETION

- a. On line 2 of Subparagraph 8.2.2, delete the words "and Owner."

§ 8.3 DELAYS AND EXTENSIONS OF TIME

- a. In Subparagraph 8.3.1, on line 4 delete the words "by delay authorized by the Owner pending mediation and binding dispute resolution;" and, on lines 6 and 7, after the words "Architect may determine," insert the words "with the agreement of the Owner."
- b. In Subparagraph 8.3.2, delete "Article 15" and replace it with "the Contract Documents."
- c. Add the following Subparagraphs 8.3.2.1 and 8.3.2.2 to 8.3.2:

§ 8.3.2.1 Weather will be considered for purposes of ascertaining delays to the extent that actual construction operations are delayed. "Adverse weather" is defined as weather which is more severe than the average weather for the particular time(s) and date(s) in question as compared to the last 5-year average. The "average" shall be based on the "local climatological data" published by the National Oceanic and Atmospheric Administration for the Project area. It shall be the responsibility of the Contractor to furnish all data necessary to support his request.

§ 8.3.2.2 The Architect shall have sole discretion in appraising the request for time extensions and any extensions granted will be prorated to reflect the actual delay caused by that individual increment of construction relative to the overall progress of the Project. For example, a 3-day extension due to weather, affecting the site work, will be prorated based on the percentage of site work relative to the total Project.

- d. Add the following Subparagraph 8.3.4 to 8.3:

§ 8.3.4 The Contractor shall not be entitled to additional compensation as a result of time extensions approved by the Architect or Owner.

ARTICLE 9; PAYMENTS AND COMPLETION

§ 9.2 SCHEDULE OF VALUES

- a. In Section 9.2, add “or the Owner” after “unless objected to by the Architect” on line 7.

§ 9.3 APPLICATIONS FOR PAYMENT

- a. Add the following sentence at the end of Subparagraph 9.3.1:

The form of Application for Payment shall be a current authorized edition of the AIA Document G 702-1992, Application and Certificate for Payment, supported by a current authorized edition of AIA Document G 703-1992, Continuation Sheet.

- b. Add the following Subparagraph 9.3.1.3 to 9.3.1:

§ 9.3.1.3 Until Substantial Completion, the Owner shall pay 95 percent of the amount due the Contractor on account of progress payments.

- c. Add the following Subparagraphs to 9.3.3:

§ 9.3.3.1 The Contractor shall submit at the prescribed time once a month a minimum of three copies of the Application for Payment. The application forms indicated herein shall be used. The Contractor shall prepare these applications in strict conformance with the Contract Documents. All applications will be completed in their entirety and in a legible manner, including all appropriate signatures. Applications with changes or corrections in handwriting may not be approved and may be rejected by the Architect and the Owner. The applications shall not include any additional Work unless this Work has been included in the Contract by an Owner approved and signed approved Change Orders (including all approving agencies). Should any corrections be necessary as a result of discrepancies from a previous payment, an adequate explanation in writing shall be attached to each Application for Payment.

§ 9.3.3.2 The Architect will work closely with the Contractor and his agents during the first and second Applications for Payment. The Architect will advise the Contractor of any errors in the application. It shall be the responsibility of the Contractor to make any and all corrections.

§ 9.3.3.3 The Contractor shall submit as part of his monthly application for payment a sworn Contractor’s Affidavit of Payment of Debts & Claims (AIA G706) attesting that it has paid all subcontractors and suppliers of labor and materials all sums due to date relative to this particular project in addition to the Payment Application Checklist and any supporting documentation required.

§ 9.5 DECISIONS TO WITHHOLD CERTIFICATION

- a. On line 8 of Subparagraph 9.5.1, delete the words “for which the Contractor is responsible.”

- b. In Subparagraph 9.5.2, delete “Article 15” and replace it with “the Contract Documents.”
- c. Add the following Subparagraph 9.5.5 to Section 9.5:

§ 9.5.5 Notwithstanding any other provision of this Contract, and notwithstanding the issuance of a Certificate for Payment by the Architect, the Owner may decide to deny or withhold payment or, because of subsequently discovered evidence or subsequent observations, may nullify payment previously made, for any of the reasons set forth in Section 9.5.1 above. If Contractor and Owner cannot agree on a revised amount, Owner will make payment for the amount for which Owner agrees. When the reasons for not making payment are removed, payment shall be made for amounts withheld because of them in response to the next filed Application for Payment.

§ 9.6 PROGRESS PAYMENTS

- a. Add the following to the end of the last sentence of Subparagraph 9.6.1: “, if approved by the Owner. Owner will make payments, less 5% retainage, to the Contractor approximately 30 days after the Contractors Application for Payment has been approved by the Architect.”
- b. At the end of Subparagraph 9.6.2, add the following sentence: “Contractor shall additionally comply with each and every requirement of Section 2.2-4354 of the Code of Virginia, 1950, as amended.”

§ 9.7 FAILURE OF PAYMENT

- a. In Subparagraph 9.7, on lines 3 and 4, delete the words “or awarded by binding dispute resolution.” Delete the last sentence in Subparagraph 9.7.

§ 9.8 SUBSTANTIAL COMPLETION

- a. Delete Subparagraph 9.8.1 and replace it with the following:

§ 9.8.1 Substantial Completion is the stage in the progress of the Work when the Work or designated portion thereof is: (i) sufficiently complete in accordance with the Contract Documents so that the Owner can occupy or utilize the Work for its intended use, except and only for minor items that may be completed without disruption or interference to the ability to use the Work; (ii) all required approvals and permits for occupancy, use and completion of the Work (including a temporary or permanent certificate of occupancy) shall have been issued by appropriate governmental authorities; (iii) the Architect has certified that the Work is complete as required by subsection (i) above; and (iv) all operational systems and elements that are part of the Work, including mechanical, electrical and support systems, are functioning as required by the Contract Documents.

- b. Add new Subparagraph 9.8.1.1 as follows:

§ 9.8.1.1 With respect to subsection (ii) in Section 9.8.1 above, if any approval, permit or certificate of occupancy issued as part of Substantial Completion is temporary or conditional, Contractor shall be responsible to perform, subsequent to Substantial Completion and as a condition to Final Completion and Final Payment, all Work required to satisfy the conditions set forth in any such temporary or conditional approval, permit or certificate. In this regard, the Contractor shall not be responsible for assuring the actual

issuance of a final approval or certificate by the applicable governmental authority, but shall be responsible for the performance of all Work and any other obligations of Contractor under this Contract or applicable law that are required to satisfy the conditions set forth in the temporary or conditional approval or certificate.

- c. Add new Subparagraph 9.8.1.2 as follows:

§ 9.8.1.2 The Owner's receiving a Certificate of Occupancy for the entire Facility is a condition precedent to Contractor's achieving Substantial Completion.

- d. Add new Subparagraph 9.8.3.1 as follows:

§ 9.8.3.1 The Architect will perform no more than one (1) inspection to determine whether the Work or a designated portion thereof has attained Substantial Completion in accordance with the Contract Documents. Owner is entitled to reimbursement from Contractor for amounts paid to the Architect for any additional inspections.

- e. Add the following sentence to Subparagraph 9.8.5:

The payment shall be sufficient to increase the total payments to 100 percent of the Contract Sum, less such amounts as the Architect shall determine for complete Work and unsettled claims.

- f. Add new Subparagraph 9.8.6 as follows:

§ 9.8.6 When Contractor considers the entire Work ready for its intended use, Contractor shall, in writing to Owner and Architect, certify that the entire Work is substantially complete and request that Architect issue a Certificate of Substantial Completion. Within a reasonable time thereafter, Owner, Contractor, and Architect shall inspect the Work to determine the status of completion.

§ 9.9 PARTIAL OCCUPANCY OR USE

- a. Delete Subparagraph 9.9.1 and replace it with the following:

§ 9.9.1 The Owner may occupy or use any completed or partially completed portion of the Work at any stage when Owner determines it is in the Owner's best interest, provided such occupancy or use is consented to by the insurer and authorized by public authorities having jurisdiction over the Project. Such partial occupancy or use may commence whether or not the portion is Substantially Complete, provided that if, as a result of Owner's interference with the completion or correction of Work that is Contractor's responsibility, such occupancy or use by the Owner increased the cost of the Work or delayed its Substantial Completion, then Contractor shall be entitled to make a Claim for such costs or delay pursuant and subject to the applicable provisions of the Contract Documents. When the Contractor considers a portion Substantially Complete, the Contractor shall prepare and submit a list to the Owner and Architect as provided under Section 9.8.2. Consent of the Contractor to partial occupancy or use shall not be unreasonably withheld, conditioned, or delayed. The stage of the progress of the Work shall be determined by written agreement between the Owner and Contractor.

§ 9.10 FINAL COMPLETION AND FINAL PAYMENT

- a. Add new Subparagraph 9.10.1.1 as follows:

§ 9.10.1.1 The Architect will perform no more than one (1) inspection to determine whether the Work or designated portion thereof has attained Final Completion in accordance with the Contract Documents. Owner is entitled to reimbursement from Contractor for amounts paid to the Architect for any additional inspections.

- b. Delete Subparagraph 9.10.2 and replace it with the following:

§ 9.10.2 As used herein, “Final Completion” shall require final payment and payment of any remaining retained percentage only if: (1) the proper and full completion of all of the Work, including but not limited to satisfactory operation of all equipment and systems and completion or correction of all punch list items, (2) delivery of all maintenance and operations manuals, the as-built drawings required by Section 3.11, and all warranties and guarantees (and assignments thereof) as required by the Contract Documents; (3) delivery of all documentation confirming and conveying any warranties, such as manufacturer’s warranties or specific Subcontractor warranties; (4) issuance of all final and unconditional approvals and certificates required from any authorities with jurisdiction over the Work, including final and unconditional certificates of occupancy (subject only to the provisions of Section 9.8.1.1 above); (5) removal of all rubbish, tools, scaffolding and surplus materials on the site and correction of all property damage that is the responsibility of Contractor pursuant to the Contract Documents; (6) delivery of final as-built survey of the Work as situated on the site; (7) delivery of executed releases (effective upon receipt of final payment) signed by all Subcontractors who may be entitled to a claim against Owner or the Project; (8) delivery of an executed release signed by Contractor discharging and waiving all claims, damages, causes of action, and/or suits which Contractor may have against Owner or Owner’s property relating to the Project or the Work effective upon receipt of the final payment; (9) an affidavit that payrolls, bills for materials and equipment, and other indebtedness connected with the Work for which the Owner or the Owner’s property might be responsible or encumbered (less amounts withheld by Owner) have been paid or otherwise satisfied; (10) a certificate evidencing that insurance required by the Contract Documents to remain in force after final payment is currently in effect and will not be canceled or allowed to expire until at least 30 days’ prior written notice has been given to the Owner; (11) a written statement that the Contractor knows of no substantial reason that the insurance will not be renewable to cover the period required by the Contract Documents; (12) consent of surety, if any, to final payment; and (13), if required by the Owner, other data establishing payment or satisfaction of obligations, such as receipts, releases and waivers of liens, claims, security interests or encumbrances arising out of the Contract, to the extent and in such form as may be designated by the Owner. If a Subcontractor refuses to furnish a release or waiver required by the Owner, the Contractor may furnish a bond satisfactory to the Owner to indemnify the Owner against such lien. If such lien remains unsatisfied after payments are made, the Contractor shall refund to the Owner all money that the Owner may be compelled to pay in discharging such lien, including all costs and reasonable attorneys’ fees.

- c. Delete Subparagraph 9.10.4 in its entirety.
- d. Add Subparagraph 9.10.6 to 9.10 as follows:

§ 9.10.6 Applications for Final Payment shall be accompanied by executed and notarized copies of AIA Document G706, Contractor's Affidavit of Payment of Debts and Claims, AIA Document G706A, Contractor's Affidavit of Release of Liens, and AIA Document G707, Consent of Surety Company to Final Payment. In addition, Contractor shall furnish separate Releases or Waivers of Liens from each Subcontractor and materials and equipment supplier involved in its portion of the Work.

- e. Add Subparagraph 9.10.7 to 9.10 as follows:

§ 9.10.7 Subsequent to Substantial Completion of the Work and during Owner's initial occupancy and use of the Project, Contractor shall schedule and conduct with Owner and Architect a complete review, commissioning, demonstration, start-up and operational shakedown of all equipment and mechanical and electrical systems installed by Contractor or its Subcontractors on the Project, (including all specific commissioning activities required by the Contract Documents) and shall also review the operation and maintenance of such systems with Owner's maintenance contractors. Subsequent to this review, the Contractor, with reasonable promptness and at no cost to Owner, shall make all adjustments or corrections and shall balance all systems in order to make all equipment and systems perform as required by the Contract Documents based on the actual use and occupancy of the Project by the Owner. If necessary, or requested by the Architect or Owner, Contractor shall require the Subcontractor, supplier or materialmen responsible for any such equipment or system to participate in the review and/or to perform the adjustments, corrections or balancing required.

ARTICLE 10; PROTECTION OF PERSONS AND PROPERTY

§ 10.2 SAFETY OF PERSONS AND PROPERTY

- a. Add the following Subparagraph 10.2.4.1 to 10.2.4:

§ 10.2.4.1 When use or storage of explosives or other hazardous materials or equipment or unusual methods are necessary, the Contractor shall give the Owner reasonable advance notice.

- b. Add the following Subparagraph 10.2.4.2 to 10.2.4:

§ 10.2.4.2 If the Contract Documents require Contractor to handle materials that under certain circumstances may be designated as hazardous, Contractor shall handle such materials in an appropriate manner.

- c. On line 6 of Subparagraph 10.2.5, insert the word "solely" between "loss is" and "attributable". In line 7, add "in any respect" between "attributable" and "to".
- d. In Subparagraph 10.2.8, change "not exceeding 21 days" to "not exceeding 10 days".

§ 10.3 HAZARDOUS MATERIALS AND SUBSTANCES

- a. In Subparagraph 10.3.2, delete everything between the first and last sentences. At the end of the Subparagraph, add the following sentence: "Notwithstanding the foregoing, Owner shall not be responsible for the costs of remediation of hazards caused by the negligence of Contractor, nor shall Contractor be entitled to adjustments in the Contract Time or the

Contract Sum resulting from such hazards caused by the negligence of the Contractor. In such event, Contractor shall bear the expense of cleanup and remediation.”

- b. Delete Subparagraph 10.3.3 in its entirety.
- c. Delete the second sentence of Subparagraph 10.3.4 in its entirety.
- d. Delete Subparagraph 10.3.6 in its entirety.

§ 10.5 ADDITIONAL SAFETY REQUIREMENTS

- a. Add new **§ 10.5 ADDITIONAL SAFETY REQUIREMENTS** and new Subparagraph 10.5.1 as follows:

§ 10.5.1 Contractor shall erect and maintain, as required by existing conditions and progress of the Work, all reasonable safeguards for safety and protection, including posting danger signs and other warnings against hazards, promulgating safety regulations and notifying owners and users of adjacent utilities, and directing necessary plankings, bridges, shoring, bracing, lights and warning signs necessary for the protection of roadways, adjacent property and the public. Contractor shall comply with the requirements of all building codes and other governing regulations and authorities and shall make all required submittals as required hereby. Contractor shall provide and maintain all cranes, hoists and other apparatus used in connection with the Work in strict conformance with the guidelines and regulations of all governing authorities as well as applicable OSHA requirements.

§ 10.6 WATER INTRUSION

- a. Add new **§ 10.6 WATER INTRUSION** and new Subparagraph 10.6.1 as follows:

§ 10.6.1 Contractor acknowledges that the nature of the Work requires appropriate protection and procedures to avoid the intrusion of water in the area where the Work is performed. In this regard, Contractor shall develop and implement appropriate moisture intrusion prevention procedures in connection with the Work, which shall remain in effect until Final Completion. These moisture intrusion procedures shall include measures to prevent and manage the intrusion of water and vapor caused by Contractor’s performance of the Work so that such conditions do not cause mold or other damage to the Work and shall include procedures for responding and remediating actual water intrusion or mold conditions caused by Contractor’s performance of the Work. The moisture intrusion procedures shall require that all window openings be boarded up or otherwise properly closed as appropriate. Contractor shall also employ reasonable methods to discover the presence of leaks caused by performance of the Work. If Contractor discovers water intrusion or mold during construction of the Work, Contractor shall notify Owner in writing of such condition within forty-eight (48) hours of its discovery, shall provide Owner all inspection reports, testing data, photographs, samples or other materials associated with the investigation and remediation of the water intrusion incident or mold condition. Any such conditions encountered shall be remedied

ARTICLE 11; INSURANCE AND BONDS

§ 11.1 CONTRACTOR’S INSURANCE AND BONDS

- a. Add Subparagraph 11.1.1.1 as follows:

§ 11.1.1.1 Notwithstanding the foregoing, the Contractor's insurance obligations are stated in Sections 22 and 23 of the Owner's General Conditions.

- b. Add Subparagraph 11.1.2.1 as follows:

§ 11.1.2.1 Contractor shall furnish bonds covering the faithful performance of the contract and payment of obligations arising thereunder. The cost thereof shall be included in the Contract Sum. The amount of each bond shall be equal to one hundred percent (100%) of the Contract Sum.

§ 11.3 WAIVERS OF SUBROGATION

- a. Subparagraph 11.3.1 is revised to provide that only the Contractor is waiving subrogation rights. As stated in the Owner's General Conditions, the Owner is not waiving subrogation rights.
- b. Subparagraph 11.3.2 is deleted in its entirety.

§ 11.4 LOSS OF USE, BUSINESS INTERRUPTION, AND DELAY IN COMPLETION INSURANCE

- a. The second sentence of Subparagraph 11.4 is deleted.

§ 11.5 ADJUSTMENT AND SETTLEMENT OF INSURED LOSS

- a. Subparagraph 11.5.1 is deleted in its entirety.
- b. Subparagraph 11.5.2 is deleted in its entirety.

ARTICLE 12; UNCOVERING AND CORRECTION OF WORK

- a. Add the following Subparagraph to 12.2:

§ 12.2.6 Any material which has been inspected by the Architect, or the Owner, whether the material has been stored or has been incorporated in the Work of the project, and has been found to be defective and not in compliance with the Contract Documents will be clearly marked. The Contractor will be notified in writing concerning the defective material. The Contractor is expected to remove the defective material from the job site immediately. If the Owner has previously paid for this material, either in materials stored or work in place, such defective material will be credited to the Owner on the Contractor's next application for payment. The Contractor is responsible for carefully checking all materials which have been delivered to the job site which have the appearance of being only slightly damaged should be noted in the Contractor's log book.

ARTICLE 13; MISCELLANEOUS PROVISIONS

§ 13.1 GOVERNING LAW

- a. Replace Subparagraph 13.1 in its entirety with the following:

§ 13.1 This Contract shall be governed by the law of the Commonwealth of Virginia.

ARTICLE 14; TERMINATION OR SUSPENSION OF THE CONTRACT

- a. Nothing in this Article 14 shall limit Owner's rights to terminate or suspend the Contract as stated in the Owner's General Conditions. Article 14 is deleted to the extent it contradicts those provisions.
- b. Delete Section 14.1, including all Subparagraphs, in its entirety.
- c. Delete "repeatedly" from Subparagraphs 14.2.1.1 and 14.2.1.3.
- d. Revise Subparagraph 14.2.1.4 as follows:

 .4 otherwise violates any provision of the Contract Documents; or
- e. Add Subparagraph 14.2.1.5 to 14.2.1, as follows:

 .5 is adjudged as bankrupt, or if it makes a general assignment for the benefit of its creditors, or if a receiver is appointed on account of its insolvency.
- f. In Subparagraph 14.2.2, delete "and upon certification by the Architect that sufficient cause exists to justify such action,".
- g. In Subparagraph 14.2.4, delete the last sentence.
- h. Delete Subparagraph 14.3.2 in its entirety.
- i. In Subparagraph 14.4.3, add "and" and delete the semicolon on line 2 and delete everything after "Subcontracts" on line 3.

ARTICLE 15; CLAIMS AND DISPUTES

- a. Contract Disputes will be resolved in accordance with the provisions contained in Section 19 of the Owner's General Conditions and Virginia Code § 2.2-4363. Article 15 is deleted to the extent it contradicts those provisions. References in the Contract Documents to the claim procedure shall be construed as referring to the claim procedure in the Owner's General Conditions.
- b. The parties may mutually agree to use any voluntary alternative means of dispute resolution to resolve the contractual dispute. References to mandatory alternative dispute resolution throughout the Contract Documents are deleted in their entirety.
- c. Subparagraph 15.1.2 is deleted in its entirety.
- d. Subparagraph 15.1.3.1 is revised to conform to the notice of claim provisions in the Owner's General Conditions.
- e. Subparagraph 15.1.4.1 is revised to add "undisputed" before "payments" in line 3.

- f. Subparagraph 15.1.4.2 is deleted in its entirety.
- g. Delete Subparagraph 15.1.7 in its entirety.
- h. Add new Subparagraph 15.2.1.1 as follows:

§ 15.2.1.1 Notwithstanding any other provision of this Contract, Contractor shall not be entitled to make any Claim for any increase in the Contract Sum or for any extension of the Contract Time or for any other costs, expenses, damages or relief of any kind or nature regardless of the asserted cause unless Contractor has given written notice of its intention to file such Claim to Owner in accordance with Section 19 of the Owner's General Conditions. Contractor acknowledges that its failure to notify Owner of any Claim within the time required by the Contract Documents will prejudice Owner's ability to respond to such event, circumstance or occurrence and mitigate the cost and schedule impacts resulting from such event, circumstance or occurrence. The failure to make any Claim in writing and within the time limits established by the Contract Documents (time being of the essence) shall mean that the Claim has been waived by Contractor, and that Contractor shall be precluded from any recovery of any kind in connection with the occurrence or condition giving rise to said Claim and that Contractor shall perform all Work required by or in connection with any such event or condition without any increase in the Contract Sum and/or any other increase in compensation or other damages of any kind or nature. In the case of any continuing cause of delay, only one Claim is necessary.

- i. In Subparagraph 15.2.5, delete the last sentence.
- j. Delete Subparagraph 15.2.6 in its entirety.
- k. Delete Subparagraph 15.2.6.1 in its entirety.
- l. Delete Subparagraph 15.2.8 in its entirety.
- m. Section 15.3 MEDIATION, including all Subparagraphs contained therein, is deleted in its entirety.
- n. Section 15.4 ARBITRATION, including all Subparagraphs contained therein, is deleted in its entirety.

SECTION 011000 SUMMARY

PART 1 GENERAL

1.01 PROJECT

- A. Project Name: Vinton War Memorial Renovation..
- B. Owner's Name: Town of Vinton.
- C. Architect's Name: Hughes Associates Architects & Engineers.
- D. The Project includes renovation of the first and second floors of the existing building, minor structural repairs in the basement, minor renovations to the building exterior finishes, new exterior doors and windows, and minor renovations to site lighting and hard surfaces adjacent to the building.

1.02 CONTRACT DESCRIPTION

- A. Contract Type: A single prime contract based on a Stipulated Price, AIA A101 (2017).

1.03 CONTRACTOR USE OF SITE AND PREMISES

- A. Construction Operations: Limited to areas noted on Drawings.
 - 1. Locate and conduct construction activities in ways that will limit disturbance to site.
- B. Provide access to and from site as required by law and by Owner:
 - 1. Emergency Building Exits During Construction: Keep all exits required by code open during construction period; provide temporary exit signs if exit routes are temporarily altered.
 - 2. Do not obstruct roadways, sidewalks, or other public ways without permit.
- C. Utility Outages and Shutdown:
 - 1. Limit shutdown of utility services. Arrange shutdowns at least 24 hours in advance with Owner.
 - 2. Prevent accidental disruption of utility services to other facilities.

END OF SECTION

**SECTION 012000
PRICE AND PAYMENT PROCEDURES**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Procedures for preparation and submittal of applications for progress payments.
- B. Documentation of changes in Contract Sum and Contract Time.
- C. Change procedures.
- D. Correlation of Contractor submittals based on changes.
- E. Procedures for preparation and submittal of application for final payment.

1.02 RELATED REQUIREMENTS

- A. Section 007300 - Supplementary Conditions
- B. Owner's General Conditions.

1.03 SCHEDULE OF VALUES

- A. Use Schedule of Values Form: AIA G703, edition stipulated in the Agreement.
- B. Electronic media printout including equivalent information will be considered in lieu of standard form specified; submit draft to Architect for approval.
- C. Forms filled out by hand will not be accepted.
- D. Submit Schedule of Values in duplicate within 15 days after date of Owner-Contractor Agreement.
- E. Include in each line item, the amount of Allowances specified in this section. For unit cost Allowances, identify quantities taken from Contract Documents multiplied by the unit cost to achieve the total for the item.
- F. Revise schedule to list approved Change Orders, with each Application For Payment.

1.04 APPLICATIONS FOR PROGRESS PAYMENTS

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

- I. Submit one electronic copy of each Application for Payment.
- J. When Architect requires substantiating information, submit data justifying dollar amounts in question. Provide one copy of data with cover letter for each copy of submittal. Show application number and date, and line item by number and description.

1.05 MODIFICATION PROCEDURES

- A. For minor changes not involving an adjustment to the Contract Sum or Contract Time, Architect will issue instructions directly to Contractor.
- B. For other required changes, Architect will issue a document signed by Owner instructing Contractor to proceed with the change, for subsequent inclusion in a Change Order.
 - 1. The document will describe the required changes and will designate method of determining any change in Contract Sum or Contract Time.
 - 2. Promptly execute the change.
- C. For changes for which advance pricing is desired, Architect will issue a document that includes a detailed description of a proposed change with supplementary or revised drawings and specifications, a change in Contract Time for executing the change with a stipulation of any overtime work required and the period of time during which the requested price will be considered valid. Contractor shall prepare and submit a fixed price quotation within 7 days.
- D. Contractor may propose a change by submitting a request for change to Architect, describing the proposed change and its full effect on the work, with a statement describing the reason for the change, and the effect on the Contract Sum and Contract Time with full documentation. Document any requested substitutions in accordance with Section 016000.
- E. Computation of Change in Contract Sum: Unless otherwise provided in the Owner's General Conditions of the AIA General Conditions as amended by the Supplementary Conditions:
 - 1. For change requested by Architect for work falling under a fixed price contract, the amount will be based on Contractor's price quotation.
 - 2. For change requested by Contractor, the amount will be based on the Contractor's request for a Change Order as approved by Architect.
 - 3. For change ordered by Architect without a quotation from Contractor, the amount will be determined by Architect based on the Contractor's substantiation of costs as specified for Time and Material work.
- F. Substantiation of Costs: Provide full information required for evaluation.
 - 1. On request, provide the following data:
 - a. Quantities of products, labor, and equipment.
 - b. Taxes, insurance, and bonds.
 - c. Overhead and profit.
 - d. Justification for any change in Contract Time.
 - e. Credit for deletions from Contract, similarly documented.
 - 2. Support each claim for additional costs with additional information:
 - a. Origin and date of claim.
 - b. Dates and times work was performed, and by whom.
 - c. Invoices and receipts for products, equipment, and subcontracts, similarly documented.
- G. Execution of Change Orders: Architect will issue Change Orders for signatures of parties as provided in the Conditions of the Contract.
- H. After execution of Change Order, promptly revise Schedule of Values and Application for Payment forms to record each authorized Change Order as a separate line item and adjust the Contract Sum.
- I. Promptly revise progress schedules to reflect any change in Contract Time, revise sub-schedules to adjust times for other items of work affected by the change, and resubmit.
- J. Promptly enter changes in Project Record Documents.

1.06 APPLICATION FOR FINAL PAYMENT

- A. Prepare Application for Final Payment as specified for progress payments, identifying total adjusted Contract Sum, previous payments, and sum remaining due.

END OF SECTION

SECTION 012100 ALLOWANCES

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Contingency allowance.
- B. Inspecting and testing allowances.
- C. Ballroom Lighting allowance.
- D. Pergola Lighting allowance.

1.02 RELATED REQUIREMENTS

- A. Section 012000 - Price and Payment Procedures
- B. Section 00-7300 – Supplementary Conditions.
- C. Owner's General Conditions.

1.03 CONTINGENCY ALLOWANCE

- A. Contractor's costs for products, delivery, installation, labor, insurance, payroll, taxes, bonding, equipment rental, overhead and profit will be included in Change Orders authorizing expenditure of funds from this Contingency Allowance.
- B. At closeout of Contract, funds remaining in Contingency Allowance will be credited to Owner by Change Order.

1.04 INSPECTING AND TESTING ALLOWANCES

- A. Costs Included in Inspecting and Testing Allowances: Cost of engaging an inspecting or testing agency; execution of inspecting and tests; and reporting results.
- B. Costs Not Included in the Inspecting and Testing Allowances:
 - 1. Costs of incidental labor and facilities required to assist inspecting or testing agency.
 - 2. Costs of testing services used by Contractor separate from Contract Document requirements.
 - 3. Costs of retesting upon failure of previous tests as determined by Architect.
- C. Payment Procedures:
 - 1. Submit one copy of the inspecting or testing firm's invoice with next application for payment.
 - 2. Pay invoice on approval by Architect.
- D. At closeout of the Contract, differences in cost will be adjusted by Change Order.

1.05 ALLOWANCES SCHEDULE

- A. Contingency Allowance: Include the stipulated sum/price of \$200,000 for use upon Owner's instructions.
- B. Inspecting and Testing Allowance: Include the sum of \$10,000 for payment of inspecting services specified in Section 014000 - Quality Requirements.
- C. BALLROOM LIGHTING ALLOWANCE: Include the sum of **\$ 43,000** for two Lobby pendant light fixtures, two Ballroom pendant light fixtures, and nine Ballroom wall sconces.
- D. PERGOLA LIGHTING ALLOWANCE: Include the sum of **\$ 7,000** for three pergola column sconces and eight recessed light fixtures integrated into pergola beam.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION

**SECTION 012300
ALTERNATES**

PART 1 GENERAL

1.01 SECTION INCLUDES

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

1.02 RELATED REQUIREMENTS

- A. Document 002113 - Instructions to Bidders: Instructions for preparation of pricing for Alternates.
- B. Document 004323 - Alternates Form: List of Alternates as supplement to Bid Form.

1.03 ACCEPTANCE OF ALTERNATES

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

1.04 SCHEDULE OF ADDITIVE ALTERNATES

- A. Additive Alternate No. 1 - PREFINISHED ALUMINUM PERGOLA:
 - 1. Base Bid Item: No work.
 - 2. Alternate Item: Drawing number A3-3.
- B. Alternate No. 2 - SITE PAVING:
 - 1. Base Bid Item: No work.
 - 2. Alternate Item: Drawing number C-100 SITE PLAN including C-200 SITE DETAILS AND NOTES.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION

**SECTION 012500
SUBSTITUTION PROCEDURES**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Procedural requirements for proposed substitutions.

1.02 RELATED REQUIREMENTS

- A. Section 002113 - Instructions to Bidders: Restrictions on timing of substitution requests.
- B. Section 013000 - Administrative Requirements: Submittal procedures, coordination.
- C. Section 00 7300 – Supplementary Conditions: § 3.4 Labor and Materials

1.03 DEFINITIONS

- A. Substitutions: Changes from Contract Documents requirements proposed by Contractor to materials, products, assemblies, and equipment.
 - 1. Substitutions for Cause: Proposed due to changed Project circumstances beyond Contractor's control.
 - a. Unavailability.
 - b. Regulatory changes.
 - c. Pandemic or quarantine related.
 - 2. Substitutions for Convenience: Proposed due to possibility of offering substantial advantage to the Project.
 - a. Substitution requests offering advantages solely to the Contractor will not be considered.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.01 GENERAL REQUIREMENTS

- A. A Substitution Request for products, assemblies, materials, and equipment constitutes a representation that the submitter:
 - 1. Has investigated proposed product and determined that it meets or exceeds the quality level of the specified product, equipment, assembly, or system.
 - 2. Agrees to provide the same warranty for the substitution as for the specified product.
 - 3. Agrees to provide same or equivalent maintenance service and source of replacement parts, as applicable.
 - 4. Agrees to coordinate installation and make changes to other work that may be required for the work to be complete, with no additional cost to Owner.
 - 5. Waives claims for additional costs or time extension that may subsequently become apparent.
 - 6. Agrees to reimburse Owner and Architect for review or redesign services associated with re-approval by authorities.
- B. Document each request with complete data substantiating compliance of proposed substitution with Contract Documents. Burden of proof is on proposer.
 - 1. Note explicitly any non-compliant characteristics.
- C. Content: Include information necessary for tracking the status of each Substitution Request, and information necessary to provide an actionable response.
 - 1. No specific form is required. Contractor's Substitution Request documentation must include the following:
 - a. Project Information:
 - 1) Official project name and number, and any additional required identifiers established in Contract Documents.
 - 2) Owner's, Architect's, and Contractor's names.
 - b. Substitution Request Information:

- 1) Discrete and consecutive Substitution Request number, and descriptive subject/title.
- 2) Indication of whether the substitution is for cause or convenience.
- 3) Issue date.
- 4) Reference to particular Contract Document(s) specification section number, title, and article/paragraph(s).
- 5) Description of Substitution.
- 6) Reason why the specified item cannot be provided.
- 7) Differences between proposed substitution and specified item.
- 8) Description of how proposed substitution affects other parts of work.
- c. Attached Comparative Data: Provide point-by-point, side-by-side comparison addressing essential attributes specified, as appropriate and relevant for the item:
 - 1) Physical characteristics.
 - 2) In-service performance.
 - 3) Expected durability.
 - 4) Visual effect.
 - 5) Warranties.
 - 6) Other salient features and requirements.
 - 7) Include, as appropriate or requested, the following types of documentation:
 - (a) Product Data:
 - (b) Samples.
 - (c) Certificates, test, reports or similar qualification data.
 - (d) Drawings, when required to show impact on adjacent construction elements.
- d. Impact of Substitution:
 - 1) Savings to Owner for accepting substitution.
 - 2) Change to Contract Time due to accepting substitution.
- D. Limit each request to a single proposed substitution item.
 1. Submit an electronic document, combining the request form with supporting data into single document.

3.02 SUBSTITUTION PROCEDURES DURING CONSTRUCTION

- A. Submit request for Substitution for Cause within 14 days of discovery of need for substitution, but not later than 14 days prior to time required for review and approval by Architect, in order to stay on approved project schedule.
- B. Substitutions will not be considered under one or more of the following circumstances:
 1. When they are indicated or implied on shop drawing or product data submittals, without having received prior approval.
 2. Without a separate written request.
 3. When acceptance will require revisions to Contract Documents.

3.03 RESOLUTION

- A. Architect may request additional information and documentation prior to rendering a decision. Provide this data in an expeditious manner.
- B. Architect will notify Contractor in writing of decision to accept or reject request.

3.04 ACCEPTANCE

- A. Accepted substitutions change the work of the Project. They will be documented and incorporated into work of the project by Change Order, Construction Change Directive, Architectural Supplementary Instructions, or similar instruments provided for in the Conditions of the Contract.

END OF SECTION

**SECTION 013000
ADMINISTRATIVE REQUIREMENTS**

PART 1 GENERAL

1.01 SECTION INCLUDES

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

1.02 RELATED REQUIREMENTS

- A. Section 007300 - Supplementary Conditions
- B. Section 016000 - Product Requirements: General product requirements.
- C. Section 017000 - Execution and Closeout Requirements: Additional coordination requirements.
- D. Section 017800 - Closeout Submittals: Project record documents; operation and maintenance data; warranties and bonds.
- E. Owner's General Conditions.

1.03 GENERAL ADMINISTRATIVE REQUIREMENTS

- A. Comply with requirements of Section 017000 - Execution and Closeout Requirements for coordination of execution of administrative tasks with timing of construction activities.
- B. Make the following types of submittals to Architect:
 - 1. Requests for Interpretation (RFI).
 - 2. Requests for substitution.
 - 3. Shop drawings, product data, and samples.
 - 4. Test and inspection reports.
 - 5. Design data.
 - 6. Manufacturer's instructions and field reports.
 - 7. Applications for payment and change order requests.
 - 8. Progress schedules.
 - 9. Coordination drawings.
 - 10. Correction Punch List and Final Correction Punch List for Substantial Completion.
 - 11. Closeout submittals.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.01 PRECONSTRUCTION CONFERENCE

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

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

3.02 PROGRESS MEETINGS

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

3.03 CONSTRUCTION PROGRESS SCHEDULE

- A. Within 10 days after date of the Agreement, submit preliminary schedule defining planned operations for the first 60 days of work, with a general outline for remainder of work.
- B. If preliminary schedule requires revision after review, submit revised schedule within 10 days.
- C. Within 20 days after review of preliminary schedule, submit draft of proposed complete schedule for review.
1. Include written certification that major contractors have reviewed and accepted proposed schedule.
- D. Within 10 days after joint review, submit complete schedule.
- E. Submit updated schedule with each Application for Payment.

3.04 REQUESTS FOR INTERPRETATION (RFI)

- A. Definition: A request seeking one of the following:
1. An interpretation, amplification, or clarification of some requirement of Contract Documents arising from inability to determine from them the exact material, process, or

- system to be installed; or when the elements of construction are required to occupy the same space (interference); or when an item of work is described differently at more than one place in Contract Documents.
2. A resolution to an issue which has arisen due to field conditions and affects design intent.
- B. Whenever possible, request clarifications at the next appropriate project progress meeting, with response entered into meeting minutes, rendering unnecessary the issuance of a formal RFI.
- C. Preparation: Prepare an RFI immediately upon discovery of a need for interpretation of Contract Documents. Failure to submit a RFI in a timely manner is not a legitimate cause for claiming additional costs or delays in execution of the work.
1. Prepare a separate RFI for each specific item.
 - a. Review, coordinate, and comment on requests originating with subcontractors and/or materials suppliers.
 - b. Do not forward requests which solely require internal coordination between subcontractors.
 2. Combine RFI and its attachments into a single electronic file. PDF format is preferred.
- D. Reason for the RFI: Prior to initiation of an RFI, carefully study all Contract Documents to confirm that information sufficient for their interpretation is definitely not included.
1. Unacceptable Uses for RFIs: Do not use RFIs to request the following::
 - a. Approval of submittals (use procedures specified elsewhere in this section).
 - b. Approval of substitutions (see Section - 016000 - Product Requirements)
 - c. Changes that entail change in Contract Time and Contract Sum (comply with provisions of the Conditions of the Contract).
 2. Improper RFIs: Requests not prepared in compliance with requirements of this section, and/or missing key information required to render an actionable response. They will be returned without a response, with an explanatory notation.
 3. Frivolous RFIs: Requests regarding information that is clearly indicated on, or reasonably inferable from, Contract Documents, with no additional input required to clarify the question. They will be returned without a response, with an explanatory notation.
 - a. The Owner reserves the right to assess the Contractor for the costs (on time-and-materials basis) incurred by the Architect, and any of its consultants, due to processing of such RFIs.
- E. Content: Include identifiers necessary for tracking the status of each RFI, and information necessary to provide an actionable response.
1. Official Project name and number, and any additional required identifiers established in Contract Documents.
 2. Owner's, Architect's, and Contractor's names.
 3. Discrete and consecutive RFI number, and descriptive subject/title.
 4. Issue date, and requested reply date.
 5. Reference to particular Contract Document(s) requiring additional information/interpretation. Identify pertinent drawing and detail number and/or specification section number, title, and paragraph(s).
 6. Contractor's suggested resolution: A written and/or a graphic solution, to scale, is required in cases where clarification of coordination issues is involved, for example; routing, clearances, and/or specific locations of work shown diagrammatically in Contract Documents. If applicable, state the likely impact of the suggested resolution on Contract Time or the Contract Sum.
- F. Attachments: Include sketches, coordination drawings, descriptions, photos, submittals, and other information necessary to substantiate the reason for the request.
- G. RFI Log: Prepare and maintain a tabular log of RFIs for the duration of the project.
- H. Review Time: Architect will respond and return RFIs to Contractor within seven calendar days of receipt. For the purpose of establishing the start of the mandated response period, RFIs

received after 12:00 noon will be considered as having been received on the following regular working day.

1. Response period may be shortened or lengthened for specific items, subject to mutual agreement, and recorded in a timely manner in progress meeting minutes.
- I. Responses: Content of answered RFIs will not constitute in any manner a directive or authorization to perform extra work or delay the project. If in Contractor's belief it is likely to lead to a change to Contract Sum or Contract Time, promptly issue a notice to this effect, and follow up with an appropriate Change Order request to Owner.
 1. Response may include a request for additional information, in which case the original RFI will be deemed as having been answered, and an amended one is to be issued forthwith. Identify the amended RFI with an R suffix to the original number.
 2. Upon receipt of a response, promptly review and distribute it to all affected parties, and update the RFI Log.
 3. Notify Architect within seven calendar days if an additional or corrected response is required by submitting an amended version of the original RFI, identified as specified above.

3.05 SUBMITTAL SCHEDULE

- A. Submit to Architect for review a schedule for submittals in tabular format.
 1. Coordinate with Contractor's construction schedule and schedule of values.
 2. Format schedule to allow tracking of status of submittals throughout duration of construction.
 3. Arrange information to include scheduled date for initial submittal, specification number and title, submittal category (for review or for information), description of item of work covered, and role and name of subcontractor.
 4. Account for time required for preparation, review, manufacturing, fabrication and delivery when establishing submittal delivery and review deadline dates.

3.06 SUBMITTALS FOR REVIEW

- A. When the following are specified in individual sections, submit them for review:
 1. Product data.
 2. Shop drawings.
 3. Samples for selection.
 4. Samples for verification.
- B. Submit to Architect for review for the limited purpose of checking for compliance with information given and the design concept expressed in Contract Documents.
- C. Samples will be reviewed for aesthetic, color, or finish selection.
- D. After review, provide copies and distribute in accordance with SUBMITTAL PROCEDURES article below and for record documents purposes described in Section 017800 - Closeout Submittals.

3.07 SUBMITTALS FOR INFORMATION

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

3.08 SUBMITTALS FOR PROJECT CLOSEOUT

- A. Submit Correction Punch List for Substantial Completion.

- B. Submit Final Correction Punch List for Substantial Completion.
- C. When the following are specified in individual sections, submit them at project closeout in compliance with requirements of Section 017800 - Closeout Submittals:
 - 1. Project record documents.
 - 2. Operation and maintenance data.
 - 3. Warranties.

3.09 SUBMITTAL PROCEDURES

- A. General Requirements:
 - 1. Use a separate transmittal for each item.
 - 2. Transmit using approved form.
 - a. Use Contractor's form, subject to prior approval by Architect.
 - 3. Sequentially identify each item. For revised submittals use original number and a sequential numerical suffix.
 - 4. Identify: Project; Contractor; subcontractor or supplier; pertinent drawing and detail number; and specification section number and article/paragraph, as appropriate on each copy.
 - 5. Apply Contractor's stamp, signed or initialed certifying that review, approval, verification of products required, field dimensions, adjacent construction work, and coordination of information is in accordance with the requirements of the work and Contract Documents.
 - 6. Deliver each submittal on date noted in submittal schedule, unless an earlier date has been agreed to by all affected parties, and is of the benefit to the project.
 - a. Send submittals in electronic format via email to Architect.
 - 7. Schedule submittals to expedite the Project, and coordinate submission of related items.
 - a. For each submittal for review, allow 10 days excluding delivery time to and from the Contractor.
 - b. For sequential reviews involving Architect's consultants, Owner, or another affected party, allow an additional 7 days.
 - c. For sequential reviews involving approval from authorities having jurisdiction (AHJ), in addition to Architect's approval, allow an additional 30 days.
 - 8. Identify variations from Contract Documents and product or system limitations that may be detrimental to successful performance of the completed work.
 - 9. Provide space for Contractor and Architect review stamps.
 - 10. When revised for resubmission, identify all changes made since previous submission.
 - 11. Distribute reviewed submittals. Instruct parties to promptly report inability to comply with requirements.
 - 12. Incomplete submittals will not be reviewed, unless they are partial submittals for distinct portion(s) of the work, and have received prior approval for their use.
 - 13. Submittals not requested will be recognized, and will be returned "Not Reviewed",
- B. Product Data Procedures:
 - 1. Submit only information required by individual specification sections.
 - 2. Collect required information into a single submittal.
 - 3. Submit concurrently with related shop drawing submittal.
 - 4. Do not submit (Material) Safety Data Sheets for materials or products.
- C. Shop Drawing Procedures:
 - 1. Prepare accurate, drawn-to-scale, original shop drawing documentation by interpreting Contract Documents and coordinating related work.
 - 2. Generic, non-project-specific information submitted as shop drawings do not meet the requirements for shop drawings.
- D. Samples Procedures:
 - 1. Transmit related items together as single package.
 - 2. Identify each item to allow review for applicability in relation to shop drawings showing installation locations.

3. Include with transmittal high-resolution image files of samples to facilitate electronic review and approval. Provide separate submittal page for each item image.

3.10 SUBMITTAL REVIEW

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

END OF SECTION

**SECTION 014000
QUALITY REQUIREMENTS**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Submittals.
- B. References and standards.
- C. Testing and inspection agencies and services.
- D. Control of installation.
- E. Manufacturers' field services.
- F. Defect Assessment.

1.02 RELATED REQUIREMENTS

- A. Document 003100 - Available Project Information: Soil investigation data.
- B. Section 012100 - Allowances: Allowance for payment of testing services.
- C. Section 013000 - Administrative Requirements: Submittal procedures.
- D. Section 014216 - Definitions.
- E. Section 00 7300 – Supplementary Conditions: § 3.5
- F. Owner's General Conditions.

1.03 DEFINITIONS

- A. Design Data: Design-related, signed and sealed drawings, calculations, specifications, certifications, shop drawings and other submittals provided by Contractor, and prepared directly by, or under direct supervision of, appropriately licensed design professional.

1.04 REFERENCES AND STANDARDS

- A. For products and workmanship specified by reference to a document or documents not included in the Project Manual, also referred to as reference standards, comply with requirements of the standard, except when more rigid requirements are specified or are required by applicable codes.
- B. Comply with reference standard of date of issue current on date of Contract Documents, except where a specific date is established by applicable code.
- C. Obtain copies of standards where required by product specification sections.
- D. Maintain copy at project site during submittals, planning, and progress of the specific work, until Substantial Completion.
- E. Should specified reference standards conflict with Contract Documents, request clarification from Architect before proceeding.
- F. Neither the contractual relationships, duties, or responsibilities of the parties in Contract nor those of Architect shall be altered from Contract Documents by mention or inference otherwise in any reference document.

1.05 TESTING AND INSPECTION AGENCIES AND SERVICES

- A. Owner will employ services of an independent testing agency to perform certain specified testing; payment for cost of services will be derived from allowance specified in Section 012100; see Section 012100 and applicable sections for description of services included in allowance.
- B. Employment of agency in no way relieves Contractor of obligation to perform Work in accordance with requirements of Contract Documents.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.01 CONTROL OF INSTALLATION

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

3.02 TESTING AND INSPECTION

- A. Testing Agency Duties:
 - 1. Provide qualified personnel at site. Cooperate with Architect and Contractor in performance of services.
 - 2. Perform specified sampling and testing of products in accordance with specified standards.
 - 3. Ascertain compliance of materials and mixes with requirements of Contract Documents.
 - 4. Promptly notify Architect and Contractor of observed irregularities or non-compliance of Work or products.
 - 5. Perform additional tests and inspections required by Architect.
 - 6. Submit reports of all tests/inspections specified.
- B. Limits on Testing/Inspection Agency Authority:
 - 1. Agency may not release, revoke, alter, or enlarge on requirements of Contract Documents.
 - 2. Agency may not approve or accept any portion of the Work.
 - 3. Agency may not assume any duties of Contractor.
 - 4. Agency has no authority to stop the Work.
- C. Contractor Responsibilities:
 - 1. Deliver to agency at designated location, adequate samples of materials proposed to be used that require testing, along with proposed mix designs.
 - 2. Cooperate with laboratory personnel, and provide access to the Work and to manufacturers' facilities.
 - 3. Provide incidental labor and facilities:
 - a. To provide access to Work to be tested/inspected.
 - b. To obtain and handle samples at the site or at source of Products to be tested/inspected.
 - c. To facilitate tests/inspections.
 - d. To provide storage and curing of test samples.
 - 4. Notify Architect and laboratory 24 hours prior to expected time for operations requiring testing/inspection services.
 - 5. Employ services of an independent qualified testing laboratory and pay for additional samples, tests, and inspections required by Contractor beyond specified requirements.
 - 6. Arrange with Owner's agency and pay for additional samples, tests, and inspections required by Contractor beyond specified requirements.

- D. Re-testing required because of non-compliance with specified requirements shall be performed by the same agency on instructions by Architect.
- E. Re-testing required because of non-compliance with specified requirements shall be paid for by Contractor.

3.03 MANUFACTURERS' FIELD SERVICES

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

3.04 DEFECT ASSESSMENT

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

END OF SECTION

SECTION 014216 DEFINITIONS

PART 1 GENERAL

1.01 SUMMARY

- A. This section supplements the definitions contained in the General Conditions.
- B. Other definitions are included in individual specification sections.

1.02 DEFINITIONS

- A. Furnish: To supply, deliver, unload, and inspect for damage.
- B. Install: To unpack, assemble, erect, apply, place, finish, cure, protect, clean, start up, and make ready for use.
- C. Product: Material, machinery, components, equipment, fixtures, and systems forming the work result. Not materials or equipment used for preparation, fabrication, conveying, or erection and not incorporated into the work result. Products may be new, never before used, or re-used materials or equipment.
- D. Project Manual: The book-sized volume that includes the procurement requirements (if any), the contracting requirements, and the specifications.
- E. Provide: To furnish and install.
- F. Supply: Same as Furnish.
- G. Architect: Same as Engineer.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION

**SECTION 015000
TEMPORARY FACILITIES AND CONTROLS**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Temporary Controls: Barriers and fencing.
- B. Security requirements.
- C. Vehicular access and parking.
- D. Waste removal facilities and services.
- E. Project identification sign.

1.02 RELATED REQUIREMENTS

- A. Section 015500 - Vehicular Access and Parking.

1.03 BARRIERS

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

1.04 FENCING

- A. Provide 6 foot (1.8 m) high fence around construction site; equip with vehicular and pedestrian gates with locks.

1.05 SECURITY - SEE SECTION 013553

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

1.06 VEHICULAR ACCESS AND PARKING - SEE SECTION 015500

- A. Comply with regulations relating to use of streets and sidewalks, access to emergency facilities, and access for emergency vehicles.
- B. Coordinate access and haul routes with governing authorities and Owner.
- C. Provide and maintain access to fire hydrants, free of obstructions.
- D. Provide means of removing mud from vehicle wheels before entering streets.
- E. Provide temporary parking areas to accommodate construction personnel. When site space is not adequate, provide additional off-site parking.

1.07 WASTE REMOVAL

- A. Provide waste removal facilities and services as required to maintain the site in clean and orderly condition.
- B. Provide containers with lids. Remove trash from site periodically.
- C. If materials to be recycled or re-used on the project must be stored on-site, provide suitable non-combustible containers; locate containers holding flammable material outside the structure unless otherwise approved by the authorities having jurisdiction.
- D. Open free-fall chutes are not permitted. Terminate closed chutes into appropriate containers with lids.

1.08 PROJECT IDENTIFICATION

- A. Provide project identification sign of design and construction indicated on drawings.
- B. Erect on site at location indicated.

- C. No other signs are allowed without Owner permission except those required by law.

1.09 REMOVAL OF UTILITIES, FACILITIES, AND CONTROLS

- A. Remove temporary utilities, equipment, facilities, materials, prior to Date of Substantial Completion inspection.
- B. Remove underground installations to a minimum depth of 2 feet (600 mm). Grade site as indicated.
- C. Clean and repair damage caused by installation or use of temporary work.
- D. Restore existing facilities used during construction to original condition.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION

**SECTION 015500
VEHICULAR ACCESS AND PARKING**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Access roads.
- B. Parking.
- C. Existing pavements and parking areas.
- D. Permanent pavements and parking facilities.
- E. Construction parking controls.
- F. Flag persons.
- G. Traffic signs and signals.
- H. Maintenance.
- I. Removal, repair.
- J. Mud from site vehicles.

PART 2 PRODUCTS

2.01 MATERIALS

- A. Temporary Construction: Contractor's option.
- B. Materials for Permanent Construction: As specified in product specification sections, including earthwork, paving base, and topping.

2.02 SIGNS, SIGNALS, AND DEVICES

- A. Stock Post Mounted and Wall Mounted Traffic Control and Informational Signs.
- B. Traffic Cones and Drums, Flares and Lights: As approved by local jurisdictions.
- C. Flag Person Equipment: As required by local jurisdictions.

PART 3 EXECUTION

3.01 ACCESS ROADS

- A. Use of existing on-site streets and driveways for construction traffic is permitted.
- B. Tracked vehicles not allowed on paved areas.
- C. Provide and maintain access to fire hydrants free of obstructions.

3.02 PARKING

- A. Use of designated areas of existing parking facilities by construction personnel is permitted as approved by Owner.
- B. Arrange for temporary parking areas to accommodate use of construction personnel.
- C. Locate as approved by Architect and Owner.

3.03 PERMANENT PAVEMENTS AND PARKING FACILITIES

- A. Prior to Substantial Completion the base for permanent roads and parking areas may be used for construction traffic.
- B. Avoid traffic loading beyond paving design capacity. Tracked vehicles not allowed.

3.04 CONSTRUCTION PARKING CONTROL

- A. Control vehicular parking to prevent interference with public traffic and parking, access by emergency vehicles, and Owner's operations.
- B. Prevent parking on or adjacent to access roads or in non-designated areas.

3.05 FLAG PERSONS

- A. Provide trained and equipped flag persons to regulate traffic when construction operations or traffic encroach on public traffic lanes.

3.06 TRAFFIC SIGNS AND SIGNALS

- A. At approaches to site and on site, install at crossroads, detours, parking areas, and elsewhere as needed to direct construction and affected public traffic.
- B. Relocate as work progresses, to maintain effective traffic control.

3.07 MAINTENANCE

- A. Maintain traffic and parking areas in a sound condition free of excavated material, construction equipment, products, mud, snow, and ice.
- B. Maintain existing paved areas used for construction; promptly repair breaks, potholes, low areas, standing water, and other deficiencies, to maintain paving and drainage in original, or specified, condition.

3.08 REMOVAL, REPAIR

- A. Repair existing facilities damaged by use, to original condition.
- B. Repair damage caused by installation.

3.09 MUD FROM SITE VEHICLES

- A. Provide means of removing mud from vehicle wheels before entering streets.

END OF SECTION

**SECTION 016000
PRODUCT REQUIREMENTS**

PART 1 GENERAL

1.01 SECTION INCLUDES

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

1.02 RELATED REQUIREMENTS

- A. Section 012500 - Substitution Procedures: Substitutions made during procurement and/or construction phases.

1.03 SUBMITTALS

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

PART 2 PRODUCTS

2.01 EXISTING PRODUCTS

- A. Do not use materials and equipment removed from existing premises unless specifically required or permitted by Contract Documents.
- B. Unforeseen historic items encountered remain the property of the Owner; notify Owner promptly upon discovery; protect, remove, handle, and store as directed by Owner.
- C. Existing materials and equipment indicated to be removed, but not to be re-used, relocated, reinstalled, delivered to the Owner, or otherwise indicated as to remain the property of the Owner, become the property of the Contractor; remove from site.

2.02 NEW PRODUCTS

- A. Provide new products unless specifically required or permitted by Contract Documents.

2.03 PRODUCT OPTIONS

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

2.04 MAINTENANCE MATERIALS

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

PART 3 EXECUTION

3.01 SUBSTITUTION LIMITATIONS

- A. See Section 012500 - Substitution Procedures.

3.02 TRANSPORTATION AND HANDLING

- A. Package products for shipment in manner to prevent damage; for equipment, package to avoid loss of factory calibration.
- B. If special precautions are required, attach instructions prominently and legibly on outside of packaging.
- C. Coordinate schedule of product delivery to designated prepared areas in order to minimize site storage time and potential damage to stored materials.
- D. Transport and handle products in accordance with manufacturer's instructions.
- E. Transport materials in covered trucks to prevent contamination of product and littering of surrounding areas.
- F. Promptly inspect shipments to ensure that products comply with requirements, quantities are correct, and products are undamaged.
- G. Provide equipment and personnel to handle products by methods to prevent soiling, disfigurement, or damage, and to minimize handling.
- H. Arrange for the return of packing materials, such as wood pallets, where economically feasible.

3.03 STORAGE AND PROTECTION

- A. Designate receiving/storage areas for incoming products so that they are delivered according to installation schedule and placed convenient to work area in order to minimize waste due to excessive materials handling and misapplication. See Section 017419.
 - 1. Structural Loading Limitations: Handle and store products and materials so as not to exceed static and dynamic load-bearing capacities of project floor and roof areas.
- B. Store and protect products in accordance with manufacturers' instructions.
- C. Store with seals and labels intact and legible.
- D. Store sensitive products in weathertight, climate-controlled enclosures in an environment favorable to product.
- E. For exterior storage of fabricated products, place on sloped supports above ground.
- F. Protect products from damage or deterioration due to construction operations, weather, precipitation, humidity, temperature, sunlight and ultraviolet light, dirt, dust, and other contaminants.
- G. Comply with manufacturer's warranty conditions, if any.
- H. Cover products subject to deterioration with impervious sheet covering. Provide ventilation to prevent condensation and degradation of products.
- I. Prevent contact with material that may cause corrosion, discoloration, or staining.
- J. Provide equipment and personnel to store products by methods to prevent soiling, disfigurement, or damage.
- K. Arrange storage of products to permit access for inspection. Periodically inspect to verify products are undamaged and are maintained in acceptable condition.

END OF SECTION

**SECTION 017000
EXECUTION AND CLOSEOUT REQUIREMENTS**

PART 1 GENERAL

1.01 SECTION INCLUDES

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

1.02 RELATED REQUIREMENTS

- A. Section 013000 - Administrative Requirements: Submittals procedures.

1.03 SUBMITTALS

- A. See Section 013000 - Administrative Requirements, for submittal procedures.
- B. Survey work: Submit name, address, and telephone number of Surveyor before starting survey work.
 - 1. On request, submit documentation verifying accuracy of survey work.
 - 2. Submit a copy of site drawing signed by the Land Surveyor, that the elevations and locations of the work are in compliance with Contract Documents.
 - 3. Submit surveys and survey logs for the project record.
- C. Cutting and Patching: Submit written request in advance of cutting or alteration that affects:
 - 1. Structural integrity of any element of Project.
 - 2. Integrity of weather exposed or moisture resistant element.
 - 3. Efficiency, maintenance, or safety of any operational element.
 - 4. Visual qualities of sight exposed elements.
 - 5. Work of Owner or separate Contractor.

1.04 QUALIFICATIONS

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

1.05 PROJECT CONDITIONS

- A. Use of explosives is not permitted.
- B. Grade site to drain. Maintain excavations free of water. Provide, operate, and maintain pumping equipment.
- C. Protect site from puddling or running water. Provide water barriers as required to protect site from soil erosion.
- D. Ventilate enclosed areas to assist cure of materials, to dissipate humidity, and to prevent accumulation of dust, fumes, vapors, or gases.
- E. Dust Control: Execute work by methods to minimize raising dust from construction operations. Provide positive means to prevent air-borne dust from dispersing into atmosphere and over adjacent property.
- F. Erosion and Sediment Control: Plan and execute work by methods to control surface drainage from cuts and fills, from borrow and waste disposal areas. Prevent erosion and sedimentation.

- G. Noise Control: Provide methods, means, and facilities to minimize noise produced by construction operations.
 - 1. Outdoors: Limit conduct of especially noisy exterior work to the hours of 8 am to 5 pm.
- H. Pollution Control: Provide methods, means, and facilities to prevent contamination of soil, water, and atmosphere from discharge of noxious, toxic substances, and pollutants produced by construction operations. Comply with federal, state, and local regulations.

1.06 COORDINATION

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

PART 2 PRODUCTS

2.01 PATCHING MATERIALS

- A. New Materials: As specified in product sections; match existing products and work for patching and extending work.
- B. Type and Quality of Existing Products: Determine by inspecting and testing products where necessary, referring to existing work as a standard.
- C. Product Substitution: For any proposed change in materials, submit request for substitution described in Section 016000 - Product Requirements.

PART 3 EXECUTION

3.01 EXAMINATION

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

3.02 PREPARATION

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

3.03 LAYING OUT THE WORK

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

3.04 GENERAL INSTALLATION REQUIREMENTS

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

3.05 CUTTING AND PATCHING

- A. Whenever possible, execute the work by methods that avoid cutting or patching.
- B. Perform whatever cutting and patching is necessary to:
 - 1. Complete the work.
 - 2. Fit products together to integrate with other work.
 - 3. Provide openings for penetration of mechanical, electrical, and other services.
 - 4. Match work that has been cut to adjacent work.
 - 5. Repair areas adjacent to cuts to required condition.
 - 6. Repair new work damaged by subsequent work.
 - 7. Remove samples of installed work for testing when requested.
 - 8. Remove and replace defective and non-complying work.
- C. Execute work by methods that avoid damage to other work and that will provide appropriate surfaces to receive patching and finishing. In existing work, minimize damage and restore to original condition.

- D. Employ skilled and experienced installer to perform cutting for weather exposed and moisture resistant elements, and sight exposed surfaces.
- E. Cut rigid materials using masonry saw or core drill. Pneumatic tools not allowed without prior approval.
- F. Restore work with new products in accordance with requirements of Contract Documents.
- G. Fit work air tight to pipes, sleeves, ducts, conduit, and other penetrations through surfaces.
- H. At penetrations of fire rated walls, partitions, ceiling, or floor construction, completely seal voids with fire rated material in accordance with Section 078400, to full thickness of the penetrated element.
- I. Patching:
 - 1. Finish patched surfaces to match finish that existed prior to patching. On continuous surfaces, refinish to nearest intersection or natural break. For an assembly, refinish entire unit.
 - 2. Match color, texture, and appearance.
 - 3. Repair patched surfaces that are damaged, lifted, discolored, or showing other imperfections due to patching work. If defects are due to condition of substrate, repair substrate prior to repairing finish.

3.06 PROGRESS CLEANING

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

3.07 PROTECTION OF INSTALLED WORK

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

3.08 ADJUSTING

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

3.09 FINAL CLEANING

- A. Use cleaning materials that are nonhazardous.
- B. Clean interior and exterior glass, surfaces exposed to view; remove temporary labels, stains and foreign substances, polish transparent and glossy surfaces, vacuum carpeted and soft surfaces.
- C. Remove all labels that are not permanent. Do not paint or otherwise cover fire test labels or nameplates on mechanical and electrical equipment.

- D. Clean equipment and fixtures to a sanitary condition with cleaning materials appropriate to the surface and material being cleaned.
- E. Clean filters of operating equipment.
- F. Clean debris from roofs, gutters, downspouts, scuppers, overflow drains, area drains, and drainage systems.
- G. Clean site; sweep paved areas, rake clean landscaped surfaces.
- H. Remove waste, surplus materials, trash/rubbish, and construction facilities from the site; dispose of in legal manner; do not burn or bury.

3.10 CLOSEOUT PROCEDURES

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

3.11 MAINTENANCE

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

END OF SECTION

**SECTION 017800
CLOSEOUT SUBMITTALS**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Project record documents.
- B. Operation and maintenance data.
- C. Warranties and bonds.

1.02 RELATED REQUIREMENTS

- A. Section 013000 - Administrative Requirements: Submittals procedures, shop drawings, product data, and samples.
- B. Section 017000 - Execution and Closeout Requirements: Contract closeout procedures.
- C. Individual Product Sections: Specific requirements for operation and maintenance data.
- D. Individual Product Sections: Warranties required for specific products or Work.

1.03 SUBMITTALS

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

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.01 PROJECT RECORD DOCUMENTS

- A. Maintain on site one set of the following record documents; record actual revisions to the Work:
 - 1. Drawings.
 - 2. Specifications.
 - 3. Addenda.
 - 4. Change Orders and other modifications to the Contract.
 - 5. Reviewed shop drawings, product data, and samples.
- B. Ensure entries are complete and accurate, enabling future reference by Owner.
- C. Store record documents separate from documents used for construction.
- D. Record information concurrent with construction progress.
- E. Specifications: Legibly mark and record at each product section description of actual products installed, including the following:

1. Changes made by Addenda and modifications.
- F. Record Drawings and Shop Drawings: Legibly mark each item to record actual construction including:
 1. Field changes of dimension and detail.
 2. Details not on original Contract drawings.

3.02 OPERATION AND MAINTENANCE DATA

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

3.03 OPERATION AND MAINTENANCE DATA FOR MATERIALS AND FINISHES

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

3.04 OPERATION AND MAINTENANCE DATA FOR EQUIPMENT AND SYSTEMS

- A. For Each Item of Equipment and Each System:
 1. Description of unit or system, and component parts.
 2. Identify function, normal operating characteristics, and limiting conditions.
 3. Include performance curves, with engineering data and tests.
 4. Complete nomenclature and model number of replaceable parts.
- B. Where additional instructions are required, beyond the manufacturer's standard printed instructions, have instructions prepared by personnel experienced in the operation and maintenance of the specific products.
- C. Panelboard Circuit Directories: Provide electrical service characteristics, controls, and communications; typed.
- D. Operating Procedures: Include start-up, break-in, and routine normal operating instructions and sequences. Include regulation, control, stopping, shut-down, and emergency instructions. Include summer, winter, and any special operating instructions.
- E. Maintenance Requirements: Include routine procedures and guide for preventative maintenance and trouble shooting; disassembly, repair, and reassembly instructions; and alignment, adjusting, balancing, and checking instructions.
- F. Include manufacturer's printed operation and maintenance instructions.
- G. Include sequence of operation by controls manufacturer.

- H. Provide original manufacturer's parts list, illustrations, assembly drawings, and diagrams required for maintenance.
- I. Provide control diagrams by controls manufacturer as installed.
- J. Include test and balancing reports.
- K. Additional Requirements: As specified in individual product specification sections.

3.05 ASSEMBLY OF OPERATION AND MAINTENANCE MANUALS

- A. Assemble operation and maintenance data into durable manuals for Owner's personnel use, with data arranged in the same sequence as, and identified by, the specification sections.
- B. Where systems involve more than one specification section, provide separate tabbed divider for each system.
- C. Binders: Commercial quality, 8-1/2 by 11 inch (216 by 280 mm) three D side ring binders with durable plastic covers; 2 inch (50 mm) maximum ring size. When multiple binders are used, correlate data into related consistent groupings.
- D. Cover: Identify each binder with typed or printed title OPERATION AND MAINTENANCE INSTRUCTIONS; identify title of Project; identify subject matter of contents.
- E. Project Directory: Title and address of Project; names, addresses, and telephone numbers of Architect, Consultants, Contractor and subcontractors, with names of responsible parties.
- F. Tables of Contents: List every item separated by a divider, using the same identification as on the divider tab; where multiple volumes are required, include all volumes Tables of Contents in each volume, with the current volume clearly identified.
- G. Dividers: Provide tabbed dividers for each separate product and system; identify the contents on the divider tab; immediately following the divider tab include a description of product and major component parts of equipment.
- H. Text: Manufacturer's printed data, or typewritten data on 20 pound paper.
- I. Drawings: Provide with reinforced punched binder tab. Bind in with text; fold larger drawings to size of text pages.
- J. Arrangement of Contents: Organize each volume in parts as follows:
 - 1. Project Directory.
 - 2. Table of Contents, of all volumes, and of this volume.
 - 3. Operation and Maintenance Data: Arranged by system, then by product category.
 - a. Source data.
 - b. Product data, shop drawings, and other submittals.
 - c. Operation and maintenance data.
 - d. Field quality control data.
 - e. Photocopies of warranties and bonds.

3.06 WARRANTIES AND BONDS

- A. Obtain warranties and bonds, executed in duplicate by responsible Subcontractors, suppliers, and manufacturers, within 10 days after completion of the applicable item of work. Except for items put into use with Owner's permission, leave date of beginning of time of warranty until Date of Substantial completion is determined.
- B. Verify that documents are in proper form, contain full information, and are notarized.
- C. Co-execute submittals when required.
- D. Retain warranties and bonds until time specified for submittal.
- E. Manual: Bind in commercial quality 8-1/2 by 11 inch (216 by 279 mm) three D side ring binders with durable plastic covers.

- F. Cover: Identify each binder with typed or printed title WARRANTIES AND BONDS, with title of Project; name, address and telephone number of Contractor and equipment supplier; and name of responsible company principal.
- G. Table of Contents: Neatly typed, in the sequence of the Table of Contents of the Project Manual, with each item identified with the number and title of the specification section in which specified, and the name of product or work item.
- H. Separate each warranty or bond with index tab sheets keyed to the Table of Contents listing. Provide full information, using separate typed sheets as necessary. List Subcontractor, supplier, and manufacturer, with name, address, and telephone number of responsible principal.

END OF SECTION

SECTION 024100 DEMOLITION

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Selective demolition of built site elements.
- B. Selective demolition of building elements for alteration purposes.

1.02 RELATED REQUIREMENTS

- A. Section 011000 - Summary: Limitations on Contractor's use of site and premises.
- B. Section 011000 - Summary: Description of items to be salvaged or removed for re-use by Contractor.
- C. Section 015000 - Temporary Facilities and Controls: Site fences, security, protective barriers, and waste removal.
- D. Section 016000 - Product Requirements: Handling and storage of items removed for salvage and relocation.
- E. Section 017000 - Execution and Closeout Requirements: Project conditions; protection of bench marks, survey control points, and existing construction to remain; reinstallation of removed products; temporary bracing and shoring.

1.03 DEFINITIONS

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

1.04 REFERENCE STANDARDS

- A. 29 CFR 1926 - Safety and Health Regulations for Construction; Current Edition.
- B. NFPA 241 - Standard for Safeguarding Construction, Alteration, and Demolition Operations; 2022, with Errata (2021).

1.05 SUBMITTALS

- A. See Section 013000 - Administrative Requirements for submittal procedures.
- B. Site Plan: Indicate:
 - 1. Vegetation to be protected.
 - 2. Areas for temporary construction and field offices.
 - 3. Areas for temporary and permanent placement of removed materials.
- C. Project Record Documents: Accurately record actual locations of capped and active utilities and subsurface construction.

1.06 QUALITY ASSURANCE

- A. Demolition Firm Qualifications: Company specializing in the type of work required.
 - 1. Minimum of 5 years of documented experience.

PART 3 EXECUTION

2.01 DEMOLITION

- A. Remove paving and curbs required to accomplish new work.

- B. Remove concrete slabs on grade, as indicated, within site boundaries.
- C. Remove other items indicated, for salvage, relocation, and recycling.

2.02 GENERAL PROCEDURES AND PROJECT CONDITIONS

- A. Comply with applicable codes and regulations for demolition operations and safety of adjacent structures and the public.
 - 1. Obtain required permits.
 - 2. Take precautions to prevent catastrophic or uncontrolled collapse of structures to be removed; do not allow worker or public access within range of potential collapse of unstable structures.
 - 3. Provide, erect, and maintain temporary barriers and security devices.
 - 4. Conduct operations to minimize effects on and interference with adjacent structures and occupants.
 - 5. Do not close or obstruct roadways or sidewalks without permits from authority having jurisdiction.
 - 6. Conduct operations to minimize obstruction of public and private entrances and exits. Do not obstruct required exits at any time. Protect persons using entrances and exits from removal operations.
 - 7. Obtain written permission from owners of adjacent properties when demolition equipment will traverse, infringe upon, or limit access to their property.
- B. Do not begin removal until receipt of notification to proceed from Owner.
- C. Protect existing structures and other elements to remain in place and not removed.
 - 1. Provide bracing and shoring.
 - 2. Prevent movement or settlement of adjacent structures.
 - 3. Stop work immediately if adjacent structures appear to be in danger.
- D. Minimize production of dust due to demolition operations. Do not use water if that will result in ice, flooding, sedimentation of public waterways or storm sewers, or other pollution.
- E. Hazardous Materials:
 - 1. If hazardous materials are discovered during removal operations, stop work and notify Architect and Owner; hazardous materials include regulated asbestos containing materials, lead, PCBs, and mercury.
- F. Partial Removal of Paving and Curbs: Neatly saw cut at right angle to surface.

2.03 EXISTING UTILITIES

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

2.04 SELECTIVE DEMOLITION FOR ALTERATIONS

- A. Existing construction and utilities indicated on drawings are based on casual field observation and existing record documents only.

1. Verify construction and utility arrangements are as indicated.
 2. Report discrepancies to Architect before disturbing existing installation.
 3. Beginning of demolition work constitutes acceptance of existing conditions that would be apparent upon examination prior to starting demolition.
- B. Remove existing work as indicated and required to accomplish new work.
1. Remove items indicated on drawings.
- C. Services including, but not limited to, HVAC, Plumbing, Fire Protection, Electrical, and Telecommunications: Remove existing systems and equipment as indicated.
1. Maintain existing active systems to remain in operation, and maintain access to equipment and operational components.
 2. Where existing active systems serve occupied facilities but are to be replaced with new services, maintain existing systems in service until new systems are complete and ready for service.
 3. Verify that abandoned services serve only abandoned facilities before removal.
 4. Remove abandoned pipe, ducts, conduits, and equipment, including those above accessible ceilings. Remove back to source of supply where possible, otherwise cap stub and tag with identification.
- D. Protect existing work to remain.
1. Prevent movement of structure. Provide shoring and bracing as required.
 2. Perform cutting to accomplish removal work neatly and as specified for cutting new work.
 3. Repair adjacent construction and finishes damaged during removal work.
 4. Patch to match new work.

2.05 DEBRIS AND WASTE REMOVAL

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

END OF SECTION

**SECTION 033000
CAST-IN-PLACE CONCRETE**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Slabs on grade.
- B. Concrete foundations.
- C. Concrete reinforcement.
- D. Joint devices associated with concrete work.
- E. Concrete curing.

1.02 RELATED REQUIREMENTS

- A. Section 031000 - Concrete Forming and Accessories: Forms and accessories for formwork.
- B. Section 033511 - Concrete Floor Finishes: Densifiers, hardeners, applied coatings, and polishing.
- C. Section 033533 - Stamped Concrete Finishing: Additional requirements for patterned concrete surfaces.
- D. Section 079200 - Joint Sealants: Products and installation for sealants and joint fillers for saw cut joints and isolation joints in slabs.

1.03 REFERENCE STANDARDS

- A. ACI CODE-318 - Building Code Requirements for Structural Concrete and Commentary; 2019 (Reapproved 2022).
- B. ACI PRC-223 - Shrinkage-Compensating Concrete - Guide; 2021.
- C. ACI PRC-302.1 - Guide to Concrete Floor and Slab Construction; 2015.
- D. ACI PRC-304 - Guide for Measuring, Mixing, Transporting, and Placing Concrete; 2000 (Reapproved 2009).
- E. ACI PRC-305 - Guide to Hot Weather Concreting; 2020.
- F. ACI PRC-306 - Guide to Cold Weather Concreting; 2016.
- G. ACI PRC-308 - Guide to External Curing of Concrete; 2016.
- H. ACI SPEC-117 - Specification for Tolerances for Concrete Construction and Materials; 2010 (Reapproved 2015).
- I. ACI SPEC-301 - Specifications for Concrete Construction; 2020.
- J. ASTM A615/A615M - Standard Specification for Deformed and Plain Carbon-Steel Bars for Concrete Reinforcement; 2022.
- K. ASTM A1064/A1064M - Standard Specification for Carbon-Steel Wire and Welded Wire Reinforcement, Plain and Deformed, for Concrete; 2024.
- L. ASTM C33/C33M - Standard Specification for Concrete Aggregates; 2024a.
- M. ASTM C39/C39M - Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens; 2023.
- N. ASTM C109/C109M - Standard Test Method for Compressive Strength of Hydraulic Cement Mortars (Using 50 mm [2 in.] Cube Specimens); 2023.
- O. ASTM C143/C143M - Standard Test Method for Slump of Hydraulic-Cement Concrete; 2020.
- P. ASTM C150/C150M - Standard Specification for Portland Cement; 2024.
- Q. ASTM C171 - Standard Specification for Sheet Materials for Curing Concrete; 2020.
- R. ASTM C260/C260M - Standard Specification for Air-Entraining Admixtures for Concrete; 2010a (Reapproved 2016).

- S. ASTM C309 - Standard Specification for Liquid Membrane-Forming Compounds for Curing Concrete; 2019.
- T. ASTM C618 - Standard Specification for Coal Ash and Raw or Calcined Natural Pozzolan for Use in Concrete; 2023, with Editorial Revision.
- U. ASTM C979/C979M - Standard Specification for Pigments for Integrally Colored Concrete; 2016.
- V. ASTM C1602/C1602M - Standard Specification for Mixing Water Used in the Production of Hydraulic Cement Concrete; 2022.
- W. ASTM C1708/C1708M - Standard Test Methods for Self-Leveling Mortars Containing Hydraulic Cements; 2023.
- X. ASTM D994/D994M - Standard Specification for Preformed Expansion Joint Filler for Concrete (Bituminous Type); 2011 (Reapproved 2022).
- Y. ASTM D1751 - Standard Specification for Preformed Expansion Joint Filler for Concrete Paving and Structural Construction (Nonextruding and Resilient Asphalt Types); 2023.
- Z. ASTM E1643 - Standard Practice for Selection, Design, Installation, and Inspection of Water Vapor Retarders Used in Contact with Earth or Granular Fill Under Concrete Slabs; 2018a.

1.04 SUBMITTALS

- A. See Section 013000 - Administrative Requirements for submittal procedures.
- B. Product Data: Submit manufacturers' data on manufactured products showing compliance with specified requirements and installation instructions.
- C. Mix Design: Submit proposed concrete mix design.
 - 1. Indicate proposed mix design complies with requirements of ACI CODE-318, Chapter 5 - Concrete Quality, Mixing and Placing.
- D. Samples for Pigment Color Selection: Submit manufacturer's complete sample chip set, including pigment number and required dosage rate for each color.
- E. Verification Samples: Submit sample chips of specified colors indicating pigment numbers and required dosage rates, for subsequent comparison to installed concrete.
- F. Test Reports: Submit report for each test or series of tests specified.
- G. Manufacturer's Installation Instructions: For concrete accessories, indicate installation procedures and interface required with adjacent construction.
- H. Project Record Documents: Accurately record actual locations of embedded utilities and components that will be concealed from view upon completion of concrete work.
- I. Warranty: Submit manufacturer warranty and ensure forms have been completed in Owner's name and registered with manufacturer.

1.05 QUALITY ASSURANCE

- A. Perform work of this section in accordance with ACI SPEC-301 and ACI CODE-318.
- B. Follow recommendations of ACI PRC-305 when concreting during hot weather.

1.06 MOCK-UPS

- A. Construct and erect mock-up panel for architectural concrete surfaces indicated to receive special treatment or finish as result of formwork.
 - 1. Panel Size: 6 by 6 feet (2 by 2 meters).
 - 2. Number of Panels: one.
- B. Accepted mock-up panel is considered basis of quality for the finished work. Keep mock-up exposed to view for duration of concrete work.

PART 2 PRODUCTS

2.01 FORMWORK

- A. Comply with requirements of Section 031000.

2.02 REINFORCEMENT MATERIALS

- A. Reinforcing Steel: ASTM A615/A615M, Grade 60 (60,000 psi) (420 MPa).
 - 1. Type: Deformed billet-steel bars.
 - 2. Finish: Unfinished, unless otherwise indicated.
- B. Steel Welded Wire Reinforcement (WWR): Galvanized, plain type, ASTM A1064/A1064M.
 - 1. Form: Flat Sheets.
 - 2. WWR Style: As indicated on drawings.
- C. Reinforcement Accessories:
 - 1. Tie Wire: Annealed, minimum 16 gauge, 0.0508 inch (1.29 mm).
 - 2. Chairs, Bolsters, Bar Supports, Spacers: Sized and shaped for adequate support of reinforcement during concrete placement.

2.03 CONCRETE MATERIALS

- A. Cement: ASTM C150/C150M, Type I - Normal Portland type.
 - 1. Acquire cement for entire project from same source.
- B. Fine and Coarse Aggregates: ASTM C33/C33M.
 - 1. Acquire aggregates for entire project from same source.
- C. Fly Ash: ASTM C618, Class C or F.
- D. Color Additives: Pure, concentrated mineral pigments specifically intended for mixing into concrete and complying with ASTM C979/C979M.
 - 1. Color(s): As indicated on drawings.
 - 2. Products:
 - a. L.M. Scofield Company; LITHOCHROME Color Hardener, Sika Corporation: www.scofield.com/#sle.
- E. Water: ASTM C1602/C1602M; clean, potable, and not detrimental to concrete.

2.04 ACCESSORY MATERIALS

- A. Self-Leveling Cementitious Concrete Floor Topping:
 - 1. Minimum Compressive Strength at 28 Days, ASTM C1708/C1708M: 7,000 pounds per square inch (48 MPa).
 - 2. Products:
 - a. SIKALEVEL Self-leveling underlayment, by SIKA CORP or approved equivalent..

2.05 BONDING AND JOINTING PRODUCTS

- A. Slab Isolation Joint Filler: 1/2-inch (13 mm) thick, height equal to slab thickness, with removable top section forming 1/2-inch (13 mm) deep sealant pocket after removal.
 - 1. Material: ASTM D1751, cellulose fiber.
- B. Slab Construction Joint Devices: Combination keyed joint form and screed, galvanized steel, with rectangular or round knockout holes for conduit or rebar to pass through joint form at 6 inches (150 mm) on center; ribbed steel stakes for setting.

2.06 CURING MATERIALS

- A. Waterborne Curing Compound and Sealer: Low VOC waterborne modified acrylic formulation; complying with ASTM C309.
 - 1. Products:
 - a. SIKA Corporation; SCOFIELD Cureseal-W..

2.07 CONCRETE MIX DESIGN

- A. Concrete Strength: Establish required average strength for each type of concrete on the basis of field experience or trial mixtures, as specified in ACI SPEC-301.
 - 1. For trial mixtures method, employ independent testing agency acceptable to Architect for preparing and reporting proposed mix designs.
- B. Normal Weight Concrete:
 - 1. Compressive Strength, when tested in accordance with ASTM C39/C39M at 28 days: 4,000 pounds per square inch (27.6 MPa).
 - 2. Fly Ash Content: Maximum 15 percent of cementitious materials by weight.
 - 3. Water-Cement Ratio: Maximum 40 percent by weight.
 - 4. Maximum Aggregate Size: 5/8 inch (16 mm).

2.08 MIXING

- A. Adding Water: If concrete arrives on-site with slump less than suitable for placement, do not add water that exceeds the maximum water-cement ratio or exceeds the maximum permissible slump.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify lines, levels, and dimensions before proceeding with work of this section.

3.02 PREPARATION

- A. Verify that forms are clean and free of rust before applying release agent.
- B. Coordinate placement of embedded items with erection of concrete formwork and placement of form accessories.
- C. Interior Slabs on Grade: Install vapor retarder under interior slabs on grade. Comply with ASTM E1643. Lap joints minimum 6 inches (150 mm). Seal joints, seams and penetrations watertight with manufacturer's recommended products and follow manufacturer's written instructions. Repair damaged vapor retarder before covering.

3.03 INSTALLING REINFORCEMENT AND OTHER EMBEDDED ITEMS

- A. Comply with requirements of ACI SPEC-301. Clean reinforcement of loose rust and mill scale, and accurately position, support, and secure in place to achieve not less than minimum concrete coverage required for protection.
- B. Install welded wire reinforcement in maximum possible lengths, and offset end laps in both directions. Splice laps with tie wire.
- C. Verify that anchors, seats, plates, reinforcement and other items to be cast into concrete are accurately placed, positioned securely, and will not interfere with concrete placement.

3.04 PLACING CONCRETE

- A. Place concrete in accordance with ACI PRC-304.
- B. Place concrete for floor slabs in accordance with ACI PRC-302.1.
- C. Ensure reinforcement, inserts, waterstops, embedded parts, and formed construction joint devices will not be disturbed during concrete placement.
- D. Finish floors level and flat, unless otherwise indicated, within the tolerances specified below.

3.05 SLAB JOINTING

- A. Locate joints as indicated on drawings.
- B. Anchor joint fillers and devices to prevent movement during concrete placement.
- C. Isolation Joints: Use preformed joint filler with removable top section for joint sealant, total height equal to thickness of slab, set flush with top of slab.

1. Install wherever necessary to separate slab from other building members, including columns, walls, equipment foundations, footings, stairs, manholes, sumps, and drains.
- D. Saw Cut Contraction Joints: Saw cut joints before concrete begins to cool, within 4 to 12 hours after placing; use 3/16 inch (5 mm) thick blade and cut at least 1 inch (25 mm) deep but not less than one quarter (1/4) the depth of the slab.
- E. Construction Joints: Where not otherwise indicated, use metal combination screed and key form, with removable top section for joint sealant.

3.06 FLOOR FLATNESS AND LEVELNESS TOLERANCES

- A. Maximum Variation of Surface Flatness:
 1. Exposed Concrete Floors: 1/4 inch (6 mm) in 10 feet (3 m).
 2. Under Seamless Resilient Flooring: 1/4 inch (6 mm) in 10 feet (3 m).
 3. Under Carpeting: 1/4 inch (6 mm) in 10 feet (3 m).
- B. Correct the slab surface if tolerances are less than specified.
- C. Correct defects by removal and replacement of the defective work. Areas requiring corrective work will be identified. Re-measure corrected areas by the same process.

3.07 CONCRETE FINISHING

- A. Concrete Slabs: Finish to requirements of ACI PRC-302.1 and as follows:
 1. Decorative Exposed Surfaces: Trowel as described in ACI PRC-302.1; take measures necessary to avoid black-burnish marks; decorative exposed surfaces include surfaces to be stained or dyed, pigmented concrete, surfaces to receive liquid hardeners, surfaces to receive dry-shake hardeners, surfaces to be polished, and all other exposed slab surfaces.
- B. In areas with floor drains, maintain floor elevation at walls; pitch surfaces uniformly to drains at 1:100 nominal.

3.08 CURING AND PROTECTION

- A. Comply with requirements of ACI PRC-308. Immediately after placement, protect concrete from premature drying, excessively hot or cold temperatures, and mechanical injury.
- B. Maintain concrete with minimal moisture loss at relatively constant temperature for period necessary for hydration of cement and hardening of concrete.
- C. Surfaces Not in Contact with Forms:
 1. Initial Curing: Start as soon as free water has disappeared and before surface is dry. Keep continuously moist for not less than three days by water ponding, water-saturated sand, water-fog spray, or saturated burlap.
 2. Final Curing: Begin after initial curing but before surface is dry.
 - a. Curing Compound: Apply in two coats at right angles, using application rate recommended by manufacturer.

3.09 FIELD QUALITY CONTROL

- A. An independent testing agency will perform field quality control tests, as specified in Section 014000 - Quality Requirements.
- B. Provide free access to concrete operations at project site and cooperate with appointed firm.
- C. Submit proposed mix design of each class of concrete to inspection and testing firm for review prior to commencement of concrete operations.
- D. Compressive Strength Tests: ASTM C39/C39M, for each test, mold and cure three concrete test cylinders. Obtain test samples for every 100 cubic yards (76 cu m) or less of each class of concrete placed.
- E. Perform one slump test for each set of test cylinders taken, following procedures of ASTM C143/C143M.

3.10 DEFECTIVE CONCRETE

- A. Test Results: The testing agency shall report test results in writing to Architect and Contractor within 24 hours of test.
- B. Defective Concrete: Concrete not complying with required lines, details, dimensions, tolerances or specified requirements.
- C. Repair or replacement of defective concrete will be determined by the Architect. The cost of additional testing shall be borne by Contractor when defective concrete is identified.
- D. Do not patch, fill, touch-up, repair, or replace exposed concrete except upon express direction of Architect for each individual area.

3.11 PROTECTION

- A. Do not permit traffic over unprotected concrete floor surface until fully cured.

END OF SECTION

**SECTION 033511
CONCRETE FLOOR FINISHES**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Dry shake colored hardeners.
- B. Antiquing Release Agent
- C. Waterborne Curing Compound and Sealer

1.02 RELATED REQUIREMENTS

- A. Section 033000 - Cast-in-Place Concrete: Finishing of concrete surface to tolerance; floating, troweling, and similar operations; curing.
- B. Section 033000 - Cast-in-Place Concrete: Curing compounds that also function as sealers.

1.03 ADMINISTRATIVE REQUIREMENTS

- A. Coordination:
 - 1. Coordinate the work with concrete floor placement and concrete floor curing.

1.04 SUBMITTALS

- A. See Section 013000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Manufacturer's published data on each finishing product, including information on compatibility of different products and limitations.
- C. Manufacturer's Instructions: Indicate manufacturer's installation instructions for preparation of substrate, application of finishing products, and requirements for polishing and protection of finished surface.
- D. Manufacturer's qualification statement.
- E. Maintenance Data: Provide data on maintenance and renewal of applied finishes.
- F. Specimen warranty.
- G. Executed warranty.

1.05 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section, with at least 5 of documented experience.
- B. Installer Qualifications: Company specializing in performing work of type specified and with at least 5 of documented experience.

1.06 MOCK-UPS

- A. Construct mock-ups of each exposed concrete floor finish indicated on drawings, 6 feet square.

1.07 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials in manufacturer's sealed packaging, including application instructions.

1.08 WARRANTY

- A. See Section 017800 - Closeout Submittals for additional warranty requirements.
- B. Manufacturer Warranty: Provide two-year manufacturer warranty for products commencing on the Date of Substantial Completion.
- C. Installer Warranty: Provide two-year manufacturer warranty for materials and workmanship commencing on the Date of Substantial Completion.
- D. Finish Warranty: Provide five-year manufacturer warranty against excessive degradation of finish. Include provision for replacement of units with excessive fading, chalking, or flaking.
- E. Extended Correction Period: Correct defective work within 2-year period commencing on Date of Substantial Completion.

PART 2 PRODUCTS

2.01 APPLICATIONS

- A. Dry Shake Hardener:
 - 1. Use at the following locations: All exterior slabs.
- B. Antiquing Release Agent:
 - 1. Use at the following locations: All exterior slabs..
- C. Waterborne Curing compound and Sealer:
 - 1. Use at the following locations: All exterior slabs.

2.02 MATERIALS

- A. Dry Shake Hardener:
 - 1. Color(s): As indicated on drawings.
 - 2. Composition: Cementitious material containing special hard aggregates, formulated as a high opacity color hardening material for the top surface of freshly place concrete substrates. Highly UV-resistant. Factory proportioned, mixed and packaged, ready-to-use. Comply with ASTM C 979.
 - a. Products:
 - 1) SIKA Corporation; LITHOCHROME Color Hardener
- B. Antiquing Release Agent:
 - 1. Color(s): As indicated on drawings.
 - 2. Composition: Colored, finely powdered material formulated to break the bond between imprinting tools and surface of color-hardened concrete while imparting an antiqued appearance.
 - a. Products:
 - 1) SIKA Corporation; LITHOCHROME Antiquing Release Pro
- C. Waterborn Curing Compound and Sealer:
 - 1. Low VOC waterborne modified acrylic formulation. Complies with ASTM C 309.
 - a. Products:
 - 1) SIKA Corporation; SCOFIELD Cureseal-W.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that floor surfaces are acceptable to receive the work of this section.
- B. Verify that flaws in concrete have been patched and joints filled with methods and materials suitable for further finishes.

3.02 GENERAL

- A. Apply materials in accordance with manufacturer's instructions.

3.03 COATING APPLICATION

- A. Verify that surface is free of previous coatings, sealers, curing compounds, water repellents, laitance, efflorescence, fats, oils, grease, wax, soluble salts, residues from cleaning agents, and other impediments to adhesion.
- B. Protect adjacent non-coated areas from drips, overflow, and overspray; immediately remove excess material.
- C. Apply coatings in accordance with manufacturer's instructions, matching approved mock-ups for color, special effects, sealing and workmanship.

3.04 PROTECTION

- A. Protect installed coatings from subsequent construction operations.
- B. Do not permit traffic over unprotected floor surface.

END OF SECTION

**SECTION 033533
STAMPED CONCRETE FINISHING**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Stamping of new full-depth concrete.
- B. Coloring of stamped concrete.
- C. Surface coatings on stamped concrete.

1.02 RELATED REQUIREMENTS

- A. Section 033000 - Cast-in-Place Concrete: Concrete mix design; bonding and chemical admixtures; mixing; placement; finishing of concrete surface to tolerance: floating, troweling, and similar operations; frequency and treatment of control joints.
- B. Section 033511 - Concrete Floor Finishes: Dry Shake Colored Hardeners, Antiquing Release Agent, and Waterborn Curing Compound and Sealer.

1.03 REFERENCE STANDARDS

- A. ASTM C33/C33M - Standard Specification for Concrete Aggregates; 2023.
- B. ASTM C979/C979M - Standard Specification for Pigments for Integrally Colored Concrete; 2016.
- C. ASTM C1315 - Standard Specification for Liquid Membrane-Forming Compounds Having Special Properties for Curing and Sealing Concrete; 2019.

1.04 ADMINISTRATIVE REQUIREMENTS

- A. Preinstallation Meeting: Conduct a preinstallation meeting one week prior to start of work of this section.
 - 1. Require attendance of parties directly affecting work of this section, including:
 - a. Installer.
 - b. Contractor's representative.
 - 2. Review mock-ups, material sequence, preparation and application, cleaning, protection and coordination with other work.

1.05 SUBMITTALS

- A. See Section 013000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Manufacturer's data sheets on each product to be used, including:
 - 1. Preparation instructions and recommendations.
 - 2. Storage and handling requirements and recommendations.
 - 3. Installation methods.
- C. Shop Drawings: Indicate location of construction and control joints.
- D. Design Samples: Submit samples for approval; demonstrate pattern, color, and finishing, using specified materials and techniques, applied to plywood.
 - 1. Number of Samples: One of each color and pattern combination specified.
 - 2. Size: 24 by 24 inches (610 by 610 mm).
- E. Maintenance Data: Provide data on maintenance and renewal of applied finishes.

1.06 QUALITY ASSURANCE

- A. Installer Qualifications: Company specializing in performing the work of this section with minimum five years documented experience and approved by owner.

1.07 MOCK-UPS

- A. Construct mock-up(s) of stamped concrete to serve as basis for evaluation of workmanship.
 - 1. Number of Mock-Ups to be Prepared: One.
 - 2. Use same materials and methods for use in the work.

3. Use approved design samples as basis for mock-ups.
 4. Record technique, timed procedures and material used.
 5. Locate where directed.
 6. Minimum Size: 6 feet, square.
- B. Obtain approval of mock-up by Architect before proceeding with work.
 - C. Retain mock-up(s) until completion of work for use as quality standard.

1.08 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials to site in manufacturer's original, unopened containers and packaging, with labels clearly identifying product name and manufacturer.
- B. Store and handle materials in accordance with manufacturer's instructions.
- C. Keep materials in manufacturer's original, unopened containers and packaging until application.
- D. Store materials in clean, dry area indoors and out of direct sunlight.
- E. Keep materials from freezing.
- F. Protect materials during storage, handling, and application to prevent contamination or damage.

1.09 FIELD CONDITIONS

- A. Do not install materials when air and surface temperatures are below 55 degrees F (13 degrees C) or above 80 degrees F (27 degrees C).
- B. Do not install materials when rain, snow, or excessive moisture is expected during application or within 24 hours after application.

PART 2 PRODUCTS

2.01 STAMPED CONCRETE APPLICATIONS

- A. Full Depth Stamped Concrete Slab - Type 1: Patterned new concrete.
 1. Application(s): All indicated exterior locations.
 2. Pattern: As shown on the drawings.
 3. As last step, apply combination curing compound / clear sealer.

2.02 FULL-DEPTH CONCRETE SLAB MATERIALS

- A. See other section(s) for concrete design mix, mixing, forming, and reinforcement.
 1. Interior Slabs and Non-Vehicular Exterior Slabs: See Section 033000.
- B. Slump: 4.0 inches (101.6 mm) maximum.
- C. Do not use calcium chloride or admixtures containing calcium chloride.
- D. Aggregates: Use non-reactive fine and coarse aggregates free from deleterious material and complying with ASTM C33/C33M.

2.03 STAMPING MATERIALS

- A. Stamping Mats: Mat type imprinting tools for texturing freshly placed concrete, in pattern and texture to achieve required surface profile and design.
 1. Mat Composition: Polyurethane.
- B. Antiquing Release Agent: Bond breaker compound capable of releasing stamping forms from concrete without creating surface defects or leaving any residue; type as recommended by stamping mat manufacturer; compatible with concrete, form materials and specified coloring agents.
 1. Dry Type Release Agent: Pigmented; for application to concrete surface using broadcast method; intended to be substantially removed using water.
 - a. Color(s): As indicated on drawings.
 - b. Products:

- 1) L.M. Scofield Company; Lithochrome Antiquing Release:
www.scofield.com/#sle.

2.04 INTEGRAL COLORING AGENTS

- A. Concrete Pigment: Pure, concentrated mineral pigments specifically intended for mixing into concrete and complying with ASTM C979/C979M.
 1. Concentration: Base dosage rates on weight of Portland cement, fly ash, silica fume, and other cementitious materials but not aggregate or sand.
 2. Packaging: If pigments are to be added to mix at site, furnish pigments in premeasured disintegrating bags to minimize job site waste.
 3. Color(s): As indicated on drawings.
 4. Products:
 - a. L.M. Scofield Company; Lithochrome Color Hardener: www.scofield.com/#sle.

2.05 ACCESSORY MATERIALS

- A. Curing and Sealing Compound: Clear, non-yellowing, non-staining, breathable, UV stable curing agent and sealer, complying with ASTM C1315 and compatible with all components of stamped concrete systems.
 1. Composition: Water-based.
 2. Products:
 - a. SIKKA Corporation; SCOFIELD Cureseal-W..
- B. Concrete Cleaner: Biodegradable cleaning and neutralizing agent for removal of curing compounds.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Examine surfaces and areas to receive stamped concrete.
- B. Verify that utility penetrations and peripheral work are complete.
- C. Notify Architect of conditions that would adversely affect application or subsequent use.
- D. Do not begin preparation or application until unacceptable conditions are corrected.

3.02 PREPARATION

- A. Protect adjacent surfaces, areas, adjoining walls, and landscaping from overspray, blown dry materials, and damage due to work of this section.
- B. Immediately remove dry pigmented materials from surfaces on which they are not intended to be applied.

3.03 FULL-DEPTH CONCRETE SLABS INSTALLATION

- A. See other section(s) for concrete forming and placement.
 1. Interior Slabs and Non-Vehicular Exterior Slabs: See Section 033000.

3.04 STAMPING

- A. Match approved mock-ups for pattern, color, texture, and workmanship.
- B. Use stamping mats to create patterns in concrete as indicated on drawings; comply with manufacturer's recommendations and instructions.
- C. Use release agent to prevent damage to concrete surface or creation of bugholes during mat removal.
- D. After removal of stamping mats, make minor surface repairs as required.

3.05 CURING

- A. Protect recently placed materials from premature drying, excessive hot or cold temperatures and mechanical injury until fully cured.

3.06 PROTECTION

- A. Do not allow traffic on finished surfaces for the following periods after application:
 - 1. Foot Traffic: Minimum 24 hours.
 - 2. Heavy Traffic: Minimum 72 hours.
- B. Protect finished work from damage during construction and ensure that, except for normal weathering, work will be without damage or deterioration at time of Substantial Completion.

END OF SECTION

SECTION 062000 FINISH CARPENTRY

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Wood casings and moldings.

1.02 RELATED REQUIREMENTS

- A. Section 099113 - Exterior Painting: Painting of finish carpentry items.
- B. Section 099123 - Interior Painting: Painting of finish carpentry items.

1.03 REFERENCE STANDARDS

- A. NHLA G-101 - Rules for the Measurement and Inspection of Hardwood and Cypress; 2023.

1.04 SUBMITTALS

- A. See Section 013000 - Administrative Requirements for submittal procedures.
- B. Product Data:
 - 1. Provide manufacturer's product data, storage and handling instructions.
- C. Shop Drawings: Indicate materials, component profiles, fastening methods, jointing details, and accessories.

1.05 QUALITY ASSURANCE

- A. Fabricator Qualifications: Company specializing in fabricating the products specified in this section with minimum five years of documented experience.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. Deliver factory-fabricated units to project site in original packages, containers or bundles bearing brand name and identification.
- B. Store finish carpentry items under cover, elevated above grade, and in a dry, well-ventilated area not exposed to heat or sunlight.
- C. Protect from moisture damage.
- D. Handle materials and products to prevent damage to edges, ends, or surfaces.

PART 2 PRODUCTS

2.01 FINISH CARPENTRY ITEMS

- A. Exterior Woodwork Items:
 - 1. Window Casings and Moldings: Hardwood or Softwood; prepare for paint finish.
- B. Interior Woodwork Items:
 - 1. Moldings, Bases, Casings, and Miscellaneous Trim: Poplar or Clear white pine; prepare for paint finish.

2.02 LUMBER MATERIALS

- A. Softwood Lumber: Pine species, smooth sawn, maximum moisture content of 6 percent; with vertical grain, of quality suitable for opaque finish.
 - 1. Grading: In accordance with rules certified by ALSC; www.alsc.org.
- B. Hardwood Lumber: Poplar species, smooth sawn, maximum moisture content of 6 percent ; with vertical grain of quality suitable for opaque finish.
 - 1. Grading: In accordance with NHLA G-101 Grading Rules; www.nhla.com.

2.03 FASTENINGS

- A. Fasteners for Exterior Applications: Stainless steel; length required to penetrate wood substrate 1-1/2 inch (38 mm) minimum.

2.04 SITE FINISHING MATERIALS

- A. Field Finishing: See Section 099123.

2.05 FABRICATION

- A. Shop assemble work for delivery to site, permitting passage through building openings.
- B. When necessary to cut and fit on site, provide materials with ample allowance for cutting. Provide trim for scribing and site cutting.

PART 3 EXECUTION

3.01 INSTALLATION

- A. Set and secure materials and components in place, plumb and level.
- B. Carefully scribe work abutting other components, with maximum gaps of 1/32 inch (0.79 mm). Do not use additional overlay trim to conceal larger gaps.

3.02 PREPARATION FOR SITE FINISHING

- A. Set exposed fasteners. Apply wood filler in exposed fastener indentations. Sand work smooth.
- B. Site Finishing: See Section 099113 and 099123.
- C. Before installation, prime paint surfaces of items or assemblies to be in contact with cementitious materials.

3.03 TOLERANCES

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

END OF SECTION

SECTION 064100
ARCHITECTURAL WOOD CASEWORK

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Specially fabricated cabinet units.
- B. Countertops.
- C. Hardware.

1.02 RELATED REQUIREMENTS

- A. Section 123600 - Countertops.

1.03 REFERENCE STANDARDS

- A. ANSI A208.1 - American National Standard for Particleboard; 2022.
- B. ANSI A208.2 - Medium Density Fiberboard (MDF) for Interior Applications; 2022.
- C. AWI/AWMAC/WI (AWS) - Architectural Woodwork Standards, 2nd Edition; 2014, with Errata (2016).
- D. AWMAC/WI (NAAWS) - North American Architectural Woodwork Standards; 2021, with Errata.
- E. NEMA LD 3 - High-Pressure Decorative Laminates; 2005.

1.04 SUBMITTALS

- A. See Section 013000 - Administrative Requirements for submittal procedures.
- B. Shop Drawings: Indicate materials, component profiles, fastening methods, jointing details, and accessories.
- C. Product Data: Provide data for hardware accessories.

1.05 QUALITY ASSURANCE

- A. Fabricator Qualifications: Company specializing in fabricating the products specified in this section with minimum five years of documented experience.
 - 1. Company with at least one project in the past 5 years with value of woodwork within 20 percent of cost of woodwork for this Project.
 - 2. Single Source Responsibility: Provide and install this work from single fabricator.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. Protect units from moisture damage.

1.07 FIELD CONDITIONS

- A. During and after installation of custom cabinets, maintain temperature and humidity conditions in building spaces at same levels planned for occupancy.

PART 2 PRODUCTS

2.01 CABINETS

- A. Quality Standard: Custom Grade, in accordance with AWI/AWMAC/WI (AWS) or AWMAC/WI (NAAWS), unless noted otherwise.
- B. Plastic Laminate Faced Cabinets: Custom grade.
- C. Cabinets:
 - 1. Finish - Exposed Exterior Surfaces: Decorative laminate.
 - 2. Finish - Exposed Interior Surfaces: Solid phenolic.
 - 3. Finish - Semi-Exposed Surfaces: Solid phenolic
 - 4. Finish - Concealed Surfaces: Manufacturer's option.
 - 5. Door and Drawer Front Edge Profiles: Square edge with thin applied band.
 - 6. Cabinet Style: Flush overlay.

7. Cabinet Doors and Drawer Fronts: Flush style.
8. Drawer Side Construction: Manufacturer's option.

2.02 WOOD-BASED COMPONENTS

- A. Wood fabricated from old growth timber is not permitted.

2.03 PANEL CORE MATERIALS

- A. Particleboard: Composite panel composed of cellulosic particles, additives, and bonding system; comply with ANSI A208.1.
 1. Grade: M-2; moisture resistance: MR10.
 2. Panel Thickness: 3/4 inch (19.1 mm).
- B. Medium Density Fiberboard (MDF): Composite panel composed of cellulosic fibers, additives, and bonding system; cured under heat and pressure; comply with ANSI A208.2.
 1. Grade: 115; moisture resistance: MR10.
 2. Panel Thickness: 3/4 inch (19.1 mm).

2.04 LAMINATE MATERIALS

- A. Manufacturers:
 1. Formica Corporation: www.formica.com/#sle.
- B. High Pressure Decorative Laminate (HPDL): NEMA LD 3, types as recommended for specific applications.
- C. Provide specific types as indicated in FINISH LEGEND

2.05 COUNTERTOPS

- A. Countertops: See Section 123600.

2.06 ACCESSORIES

- A. Adhesive: Type recommended by fabricator to suit application.
- B. Fasteners: Size and type to suit application.
- C. Bolts, Nuts, Washers, Lags, Pins, and Screws: Of size and type to suit application; galvanized or chrome-plated finish in concealed locations and stainless steel or chrome-plated finish in exposed locations.

2.07 HARDWARE

- A. Adjustable Shelf Supports: Standard side-mounted system using multiple holes for pin supports and coordinated self rests, polished chrome finish, for nominal 1 inch (25 mm) spacing adjustments.
- B. Vanity Brackets: Fixed, ADA-compliant, face-of-stud mounting.
 1. Material and Shape: Steel; formed compound shapes.
 - a. Finish: Manufacturer's standard, factory-applied, textured powder coat.
 - b. Color: Black.
 2. Height: 18 inches (460 mm).
 3. Support Length: 21-1/2 inches (546 mm).
 4. Products:
 - a. Rakks/Rangine Corporation; ADA Compliant EHV Vanity Supports: www.rakks.com/#sle.
- C. Drawer and Door Pulls: See FINISH LEGEND.
- D. Drawer Slides:
 1. Type: Full extension.
 2. Static Load Capacity: Commercial grade.
 3. Mounting: Side mounted.
 4. Stops: Integral type.
 5. Features: Provide self closing/stay closed type.

- E. Hinges: European style concealed self-closing type, steel with nickel-plated finish.

2.08 FABRICATION

- A. Assembly: Shop assemble cabinets for delivery to site in units easily handled and to permit passage through building openings.
- B. Edging: Fit shelves, doors, and exposed edges with specified edging. Do not use more than one piece for any single length.
- C. Plastic Laminate: Apply plastic laminate finish in full uninterrupted sheets consistent with manufactured sizes. Fit corners and joints hairline; secure with concealed fasteners.
 - 1. Cap exposed plastic laminate finish edges with material of same finish and pattern.
- D. Provide cutouts for plumbing fixtures. Verify locations of cutouts from on-site dimensions. Seal cut edges.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify adequacy of backing and support framing.
- B. Verify location and sizes of utility rough-in associated with work of this section.

3.02 INSTALLATION

- A. Set and secure custom cabinets in place, assuring that they are rigid, plumb, and level.
- B. Use fixture attachments in concealed locations for wall mounted components.
- C. Use concealed joint fasteners to align and secure adjoining cabinet units.
- D. Secure cabinets to floor using appropriate angles and anchorages.

3.03 ADJUSTING

- A. Adjust installed work.
- B. Adjust moving or operating parts to function smoothly and correctly.

3.04 CLEANING

- A. Clean casework, counters, shelves, hardware, fittings, and fixtures.

END OF SECTION

**SECTION 074113
METAL ROOF PANELS**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Standing seam metal roofing system.
- B. Standing seam metal roofing accessories.
- C. Metal roofing accessories.

1.02 REFERENCE STANDARDS

- A. AAMA 2605 - Voluntary Specification, Performance Requirements and Test Procedures for Superior Performing Organic Coatings on Aluminum Extrusions and Panels (with Coil Coating Appendix); 2022.
- B. ASCE 7 - Minimum Design Loads and Associated Criteria for Buildings and Other Structures; Most Recent Edition Cited by Referring Code or Reference Standard.
- C. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process; 2023.
- D. ASTM A792/A792M - Standard Specification for Steel Sheet, 55% Aluminum-Zinc Alloy-Coated by the Hot-Dip Process; 2023.
- E. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials; 2023d.
- F. ASTM E1592 - Standard Test Method for Structural Performance of Sheet Metal Roof and Siding Systems by Uniform Static Air Pressure Difference; 2005 (Reapproved 2017).
- G. ASTM E1646 - Standard Test Method for Water Penetration of Exterior Metal Roof Panel Systems by Uniform Static Air Pressure Difference; 1995 (Reapproved 2024).
- H. ASTM E1680 - Standard Test Method for Rate of Air Leakage through Exterior Metal Roof Panel Systems; 2016 (Reapproved 2022).
- I. UL 580 - Standard for Tests for Uplift Resistance of Roof Assemblies; Current Edition, Including All Revisions.

1.03 REFERENCE STANDARDS

- A. ASTM A 240 - Standard Specification for Chromium and Chromium-Nickel Stainless Steel Plate, Sheet, and Strip for Pressure Vessels and for General Applications.
- B. ASTM A 875 - Standard Specification for Steel Sheet, Zinc-5 % Aluminum Alloy-Coated by the Hot-Dip Process
- C. ASTM D 1056 - Standard Specification for Flexible Cellular Materials - Sponge or Expanded Rubber.
- D. ASTM D 3575 - Standard Test Methods for Flexible Cellular Materials made from Olefin Polymers.
- E. ASTM E 2140 - Standard Test Method for Water Penetration of Metal Roof Panel Systems by Static Water Pressure Head.
- F. FM 4470 Approval Standard for Class 1 Panel Roofs.
- G. FM 4471 - Class 1 Panel Roof; Factory Mutual Research Corporation.
- H. UL 263 - Fire Tests of Building Constructions and Materials.
- I. UL 790 - Standard Test Methods for Fire Tests of Roof Coverings.
- J. UL 1897 - Uplift Test for Roof Covering Systems.
- K. ICC-ES AC166 - Test Procedure for Wind Driven Rain Resistance of Metal Roof Coverings.
- L. SMACNA - Architectural Sheet Metal Manual.

- M. National Coil Coating Association (NCCA)
- N. NRCA - The NRCA Roofing and Waterproofing Manual.

1.04 SUBMITTALS

- A. See Section 013000 - Administrative Requirements for submittal procedures.
- B. Product Data: Manufacturer's data sheets on each product to be used, including:
 - 1. Storage and handling requirements and recommendations.
 - 2. Installation methods.
 - 3. Specimen warranty.
- C. Design Loads: Submit manufacturer's minimum design load calculations according to ASCE 7, Method 2 for Components and Cladding. In no case shall the design loads be taken to be less than those specified herein.
- D. Dead Load Evaluation: Provide documentation from a licensed structural engineer of a structural evaluation of the roof structure and its suitability for the new imposed roofing loads.
- E. Shop Drawings: Include layouts of roof panels, details of edge and penetration conditions, spacing and type of connections, flashings, underlayments, and special conditions.
 - 1. Show work to be field-fabricated or field-assembled.
- F. Selection Samples: For each roofing system specified, submit color chips representing manufacturer's full range of available colors and patterns.
- G. Verification Samples: For each roofing system specified, submit samples of minimum size 12 inches (305 mm) square, representing actual roofing metal, thickness, profile, color, and texture.
 - 1. Include typical panel joint in sample.
 - 2. Include typical fastening detail.
- H. Manufacturer Requirement. The metal roof panels, in addition to meeting all the criteria set out in this Section, must be manufactured by the manufacturer identified in Part 2.01 of this Section, without exception. The Owner will not accept metal roof panels of a different brand, make or manufacturer.
- I. Installer's qualification statement.
- J. Test Reports: Indicate compliance of metal roofing system to specified requirements.
- K. Provide manufacturer's maintenance instructions that include recommendations for periodic checking and maintenance of installed roof system.
- L. Warranty: Submit specified manufacturer's warranty and ensure that forms have been completed in Owner's name and are registered with manufacturer.

1.05 QUALITY ASSURANCE

- A. Manufacturer Requirement. The metal roof panels, in addition to meeting all the criteria set out in this Section, must be manufactured by the manufacturer identified in Part 2.01 of this Section, without exception. The Owner will not accept metal roof panels of a different brand, make or manufacturer.
- B. Installer Qualifications: Company specializing in performing work of the type specified and with at least three years of documented experience and approved by manufacturer.
- C. **Manufacturer's Required Inspection: A representative of the roof system manufacturer must be present (3) days per week during the roof system installation and provide weekly reports to the A/E and Owner. The manufacturer must provide a signed and notarized letter from an officer of the company stating that these inspections will be provided at no extra cost to the owner.**

1.06 MOCK-UPS

- A. Provide mock-up of 15 sq ft (1.4 sq m), including underlayment, shingles, eave protection membrane, and associated flashings.

- B. Locate as directed by Architect.
- C. Do not proceed with remaining work until workmanship, color, and sheen are approved by Architect.
- D. Refinish mock-up area as required to produce acceptable work.

1.07 PRE-INSTALLATION CONFERENCE

- A. Convene a pre-roofing conference approximately two weeks before scheduled commencement of roofing system installation and associated work.
- B. Require attendance of installers of deck or substrate construction to receive roofing, installers of rooftop units and other work in and around roofing which must precede or follow roofing work including mechanical work, Architect, Owner, roofing system manufacturer's representative.
- C. Objectives include:
 1. Review foreseeable methods and procedures related to roofing work, including set up and mobilization areas for stored material and work area.
 2. Tour representative areas of roofing substrates, inspect and discuss condition of substrate, roof drains, curbs, penetrations and other preparatory work.
 3. Review structural loading limitations of deck and inspect deck for loss of flatness and for required attachment.
 4. Review roofing system requirements, Drawings, Specifications and other Contract Documents.
 5. Review and finalize schedule related to roofing work and verify availability of materials, installer's personnel, equipment and facilities needed to make progress and avoid delays.
 6. Review required inspection, testing, certifying procedures.
 7. Review weather and forecasted weather conditions and procedures for coping with unfavorable conditions, including possibility of temporary roofing.
 8. Record conference including decisions and agreements reached. Furnish a copy of records to each party attending.

1.08 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials in manufacturer's original, unopened, undamaged containers with identification labels intact.
- B. Provide strippable plastic protection on prefinished roofing panels for removal after installation.
- C. Store materials protected from exposure to harmful environmental conditions and at temperature and humidity conditions recommended by the manufacturer.
 1. Store materials above ground, on skids.
 2. Protect material with waterproof covering and allow sufficient ventilation to prevent condensation buildup or moisture entrapment on the materials.

1.09 FIELD CONDITIONS

- A. Do not install metal roof panels, eave protection membrane or underlayment when surface, ambient air, or wind chill temperatures are below 45 degrees F (7 degrees C).
- B. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.

1.10 WARRANTY

- A. See Section 017800 - Closeout Submittals for additional warranty requirements.
- B. Finish Warranty: Provide 5-year manufacturer warranty against excessive degradation of exterior finish. Include provision for replacement of units with excessive fading, chalking, or flaking. Complete forms in Owner's name and register with warrantor.
- C. Special Warranty: Provide 30 year warranty for weathertightness of roofing system, including agreement to repair or replace metal roof panels that fail to keep out water commencing on the Date of Substantial Completion. Complete forms in Owner's name and register with warrantor.

- D. Installer Warranty: Provide installer's 3 year warranty covering roof system installation and watertightness.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Architectural Metal Roof Panel Manufacturer:
1. The Garland Company, Inc., www.garlandco.com.
 2. Territory Manager: Brian Foley
 3. 434-953-0531

2.02 PERFORMANCE REQUIREMENTS

- A. Standing Seam Roofing System: R-Mer Loc
1. Thermal Expansion and Contraction:
 - a. Completed metal roofing and flashing system shall be capable of withstanding expansion and contraction of components caused by changes in temperature without buckling, producing excess stress on structure, anchors or fasteners, or reducing performance ability.
 - b. Design temperature differential shall be not less than 200 degrees F.
 - c. Interface between panel and clip shall provide for unlimited thermal movement in each direction along the longitudinal direction.
 - d. Location of metal roofing rigid connector shall be at roof ridge unless otherwise approved by the Architect. Metal ridge connector may require design as per job conditions by specified manufacturer.
 2. Uniform wind load capacity:
 - a. Installed roof system shall withstand negative (uplift) design wind loading pressures complying with the following criteria.
 - 1) Design Code: ASCE 7, Method 2 for Components and Cladding.
 - 2) Safety Factor: 1.67 after any load reduction or material stress increase.
 - 3) Category III Building with an Importance Factor of 1.
 - 4) Wind Speed: 120 mph.
 - 5) Ultimate Pullout Value: 467 pounds per each of the two fasteners holding the panel anchor to the roof decking or framing system.
 - 6) Exposure Category: C.
 - 7) Design Roof Height: 50 ft feet.
 - 8) Minimum Building Width: [contact Garland sales rep.] feet.
 - 9) Roof Pitch: 6 inches per foot.
 - 10) Roof Area Design Uplift Pressure:
 - (a) Zone 1 - Field of roof 44 psf.
 - (b) Zone 2 - Eaves, ridges, hips, and rakes 64 psf.
 - (c) Zone 3 - Corners 76 psf.
 - b. ASTM E 1592: Capacity shall be determined using pleated airbag method in accordance with ASTM E 1592, testing of sheet metal roof panels. Allowable safe working loads shall be determined by dividing the ultimate test load by the safety factor specified above.
 - c. Underwriters' Laboratories, Inc., (UL), wind uplift resistance classification: Roof assembly shall be classified as Class 1-90, as defined by UL 580
 3. Uniform Positive Load Capacity.
 - a. Installed roof system shall be capable of resisting the following positive uniform roof loads: Roof Live Load of 20 psf; Roof Snow Load of 22.9 psf.
 - b. Dead Load: Loading of the roof structure, due to tear off of existing, and/or installation of new roofing materials shall not exceed the present loading due to weight of the existing roofing system.
 - c. Installed roof system shall carry positive uniform design loads with a maximum system deflection of L/180 as measured at the rib (web) of the panel.

4. Underwriters' Laboratories, Inc., (UL):
 - a. Underwriters' Laboratories, Inc., (UL) fire resistance P ratings for roof assemblies: If applicable, panel system shall be approved for use in an appropriate Construction Assembly, as defined by UL 263.
 - b. Underwriters' Laboratories, Inc., (UL) Class A fire rating per UL 790.
5. ASTM E 1680: Static pressure air infiltration (roof panels):
 - a. Pressure Leakage Rate
 - 1) 1.57 PSF 0.0054 cfm/sq.ft.
 - 2) 6.24 PSF 0.0054 cfm/sq.ft.
 - 3) 20.0 PSF 0.0027 cfm/sq.ft.
6. ASTM E 1646: Static pressure water infiltration (roof panels):
 - a. Pressure Result:
 - 1) 5 Gal/Hr per S.F. and Static No Leakage
 - 2) Pressure of 20.0 Psf. for 15 minutes
7. Capacities for gauge, span or loading other than those tested may be determined by interpolation of test results within the range of test data. Extrapolation for conditions outside test range is not acceptable.
8. Submit third party validation of environmental claims, prepared UL Environment, for all metal roof panels containing recycled content and/or bio based content.

2.03 STANDING SEAM METAL ROOFING

- A. R-Mer Loc: Panel with 1-3/4 inch high standing seam with 3/8-inch high clearance between panel and substrate.
 1. Width of Panel:
 - a. 18 inches.
 2. Seam Height: 1-3/4 inch.
 3. Panel Clips: Minimum 18 gauge, galvanized steel or stainless steel. Two-piece clips are unacceptable.
 4. Passes:
 - a. ASTM E 1592
 - b. ASTM E 1680
 - c. ASTM E 1646
 - d. Class A Fire Rating, UL-790.
 - e. UL (Class 90) 580.
 5. Panel material:
 - a. Galvanized steel 24 gauge, G90, smooth as per ASTM A 653.
 6. Flashing and flat stock material: Fabricate in profiles indicated on Drawings of same material, thickness, and finish as roof system, unless indicated otherwise.
 7. Coated Finish:
 - a. Exposed surfaces for coated panels:
 - 1) Two coat coil applied, baked-on full-strength (70% resin) fluorocarbon coating system (polyvinylidene fluoride, PVF2), applied by manufacturer's approved applicator.
 - 2) Coating system shall provide nominal 1.0 mil dry film thickness, consisting of primer and color coat.
 - b. Unexposed surfaces for coated panels shall be baked-on polyester coating with .20 to .30 dry film thickness (TDF).
 8. Accessory Components:
 - a. Gable anchor clips shall be minimum 18 gauge, galvanized steel or stainless steel.
 - b. Fasteners:
 - 1) Concealed fasteners: Corrosion resistant steel fasteners (zinc plated or equal) designed to meet structural loading requirements. Provide #14 as minimum fastener size.

- 2) Exposed fasteners: Series 410 stainless steel fasteners or one-eighth (1/8) inch diameter stainless steel waterproof rivets. All exposed fasteners shall be factory painted to match the color of the standing seam panels.
- c. Closures: Factory precut closed cell foam meeting ASTM D 1056 or ASTM D 3575, with metal trim matching panels when used at hip, ridge, jamb, and rake.
- d. Provide all miscellaneous accessories for complete installation.

2.04 STANDING SEAM METAL ROOFING ACCESSORIES

- A. Underlayment:
 - 1. 40 mil minimum high temp self adhesive membrane, installed in accordance with manufacturer's recommendations.
- B. Sealant:
 - 1. Concealed Applications: Non-Curing Butyl Sealant - Schnee-Morehead, Inc. SM5430 Acryl-R, or equal.
 - 2. Exposed Applications: UV Resistant Tripolymer Sealant - Geocel Corporation, 2300 Tripolymer Sealant, or equal.

2.05 METAL ROOFING ACCESSORIES

- A. Sheet Flat Stock: High gloss, factory painted aluminum
 - 1. Material and Thickness:
 - a. 24 gauge steel
 - 2. Color. TBD by Owner.

2.06 ATTACHMENT SYSTEM

- A. Concealed System: Provide manufacturer's standard stainless steel or nylon-coated aluminum concealed anchor clips designed for specific roofing system and engineered to meet performance requirements, including anticipated thermal movement.

2.07 FINISHES

- A. Fluoropolymer Coil Coating System: Polyvinylidene fluoride (PVDF) multi-coat superior performing organic coatings system complying with AAMA 2605, including at least 70 percent PVDF resin, and at least 80 percent of coil coated metal surfaces having minimum total dry film thickness (DFT) of 0.9 mil, 0.0009 inch (0.023 mm); color and gloss as selected by Architect from manufacturer's standard line.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Examine surfaces to receive metal roofing. Notify the Architect in writing of any defective conditions encountered. Starting of work shall constitute acceptance of such conditions.
- B. Structural Deck Substrate:
 - 1. Inspect roof deck to verify deck is clean and smooth, free of depressions, waves, or projections, and properly sloped.
 - 2. Verify deck is dry and joints are solidly supported and fastened.
 - 3. Verify wood nailers are installed and correctly located. Do not use pressure-treated wood containing salt-based preservatives or materials corrosive to steel.
- C. Structural Framing Substrate:
 - 1. Verify primary and secondary framing members are installed and fastened, properly aligned and sloped.
 - 2. Verify damaged shop coatings are repaired with touch up paint.
- D. Verify roof openings, curbs, pipes, sleeves, ducts, or vents through roof are solidly set, reglets are in place, and nailing strips located.
- E. Correct defective conditions before beginning work.

3.02 PREPARATION

- A. Broom clean wood sheathing prior to installation of roofing system.
- B. Coordinate roofing work with provisions for roof drainage, flashing, trim, penetrations, and other adjoining work to ensure that completed roof will be free of leaks.
- C. Remove protective film from surface of roof panels immediately prior to installation; strip film carefully to avoid damage to prefinished surfaces.
- D. Separate dissimilar metals by applying a bituminous coating, self-adhering rubberized asphalt sheet, or other permanent method approved by metal roof panel manufacturer.
- E. Protect surrounding areas and adjacent surfaces from damage during execution of this work.
- F. At locations where metal will be in contact with wood or other absorbent material subject to wetting, seal joints with sealing compound and apply one coat of heavy-bodied bituminous paint.

3.03 INSTALLATION

- A. Install in conformance with the NRCA Roofing and Waterproofing Manual and Manufacturers installation requirements.
- B. Overall: Install roofing system in accordance with approved shop drawings and metal roof panel manufacturer's instructions and recommendations, as applicable to specific project conditions; securely anchor components of roofing system in place allowing for thermal and structural movement.
 - 1. Install roofing system with concealed clips and fasteners, except as otherwise recommended by manufacturer for specific circumstances.
 - 2. Minimize field cutting of panels. Where field cutting is required, use methods that will not distort panel profiles. Use of torches for field cutting is prohibited.
- C. Accessories: Install necessary components that are required for complete roofing assembly, including flashings, gutters, downspouts, trim, moldings, closure strips, preformed crickets, caps, equipment curbs, rib closures, ridge closures, and similar roof accessory items.
- D. Install roofing felt and building paper slip sheet on roof sheathing before installing preformed metal roof panels; secure by methods acceptable to roof panel manufacturer, minimizing use of metal fasteners; apply from eaves to ridge in shingle fashion, overlapping horizontal joints at least 2 inches (50 mm) and side and end laps at least 3 inches (75 mm); offset seams in building paper and seams in roofing felt.
- E. Roof Panels: Install metal roof panels in accordance with manufacturer's installation instructions, minimizing transverse joints except at junction with penetrations.
 - 1. Form weathertight standing seams incorporating concealed clips, using an automatic mechanical seaming device approved by panel manufacturer.
 - 2. Install sealant or sealant tape at end laps and side joints as recommended by metal roof panel manufacturer.
 - 3. Install all panels continuous from ridge to eave. Transverse seams are not permitted.
 - 4. Panel lengths that exceed maximum shipping lengths shall be field rolled on equipment owned by the panel manufacturer. Seam sealant must be factory applied.
 - 5. Install sealants where indicated to clean dry surfaces only without skips or voids..
 - 6. Install metal edge treatment in accordance with the manufacturer's instructions and the approved shop drawings.
 - 7. Install metal roofing accessories in accordance with the manufacturer's instructions and the approved shop drawings.
- F. Clip Spacing:
 - 1. Zone 1 (field) : 4' O.C.
 - 2. Zone 2 (eave, ridge, hip) : 3' 9" O.C.
 - 3. Zone 3 (corners) : 3' 9" O.C.

- G. Exposed fasteners, screws and/or roof mastic are unacceptable and will be rejected. System configuration only allows for exposed fasteners at panel overlap, if required, and at trim details in accordance with the Manufacturer's requirements.
- H. Where not otherwise indicated conform to SMACNA details including flashings and trim.

3.04 CLEANING

- A. See Section 017000 - Execution and Closeout Requirements for additional requirements.
- B. Clean exposed sheet metal work at completion of installation. Remove grease and oil films, excess joint sealer, handling marks, and debris from installation, leaving the work clean and unmarked, free from dents, creases, waves, scratch marks, or other damage to the finish.

3.05 PROTECTION

- A. Do not permit storage of materials or roof traffic on installed roof panels. Provide temporary walkways or planks as necessary to avoid damage to completed work. Protect roofing until completion of project.
- B. Touch-up, repair, or replace damaged roof panels or accessories before Date of Substantial Completion.

END OF SECTION

SECTION 075323
EPDM THERMOSET SINGLE-PLY ROOFING - CARLISLE

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Adhered roof system with ethylene propylene diene monomer (EPDM) roofing membrane.
- B. Insulation, flat and tapered.
- C. Vapor retarder.
- D. Deck sheathing.
- E. Roofing cant strips, stack boots, and walkway pads.

1.02 RELATED REQUIREMENTS

- A. Section 076200 - Sheet Metal Flashing and Trim: Counterflashing and reglets.

1.03 REFERENCE STANDARDS

- A. ASCE 7 - Minimum Design Loads and Associated Criteria for Buildings and Other Structures; Most Recent Edition Cited by Referring Code or Reference Standard.
- B. ASTM C1177/C1177M - Standard Specification for Glass Mat Gypsum Substrate for Use as Sheathing; 2017.
- C. ASTM C1289 - Standard Specification for Faced Rigid Cellular Polyisocyanurate Thermal Insulation Board; 2023a.
- D. ASTM D41/D41M - Standard Specification for Asphalt Primer Used in Roofing, Dampproofing, and Waterproofing; 2011 (Reapproved 2023).
- E. ASTM D312/D312M - Standard Specification for Asphalt Used in Roofing; 2016a (Reapproved 2023).
- F. ASTM D4637/D4637M - Standard Specification for EPDM Sheet Used in Single-Ply Roof Membrane; 2015, with Editorial Revision (2022).
- G. FM DS 1-29 - Roof Deck Securement and Above-Deck Roof Components; 2016, with Editorial Revision (2022).
- H. UL 790 - Standard for Standard Test Methods for Fire Tests of Roof Coverings; Current Edition, Including All Revisions.

1.04 ADMINISTRATIVE REQUIREMENTS

- A. Preinstallation Meeting: Convene one week before starting work of this section.
 - 1. Review preparation and installation procedures and coordinating and scheduling required with related work.

1.05 SUBMITTALS

- A. See Section 013000 - Administrative Requirements for submittal procedures.
- B. Product Data: Provide manufacturer's written information listed below.
 - 1. Product data indicating membrane materials, flashing materials, insulation, vapor retarder, surfacing, and fasteners.
 - 2. Preparation instructions and recommendations.
 - 3. Storage and handling requirements.
- C. Shop Drawings: Indicate joint or termination detail conditions, conditions of interface with other materials, and setting plan for tapered insulation.
- D. Manufacturer's Certificate: Certify that products meet or exceed specified requirements.
- E. Manufacturer's Field Reports: Indicate procedures followed, ambient temperatures, humidity, wind velocity during application, and other supplementary instructions.

- F. Manufacturer's Installation Instructions: Indicate membrane seaming precautions and perimeter conditions requiring special attention.
- G. Specimen Warranty: For approval.
- H. Warranty:
 - 1. Submit manufacturer warranty and ensure that forms have been completed in Owner's name and registered with manufacturer.
 - 2. Submit installer's certification that installation complies with all warranty conditions for the waterproof membrane.
- I. Manufacturer's Qualification Statement.
- J. Installer's Qualification Statement.

1.06 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum twenty (20) years of documented experience.
- B. Installer Qualifications: Company specializing in performing work of this section:
 - 1. Approved by membrane manufacturer.

1.07 DELIVERY, STORAGE, AND HANDLING

- A. Deliver products in manufacturer's original containers, dry, undamaged, with seals and labels intact.
- B. Protect products in weather protected environment, clear of ground and moisture.
- C. Protect foam insulation from direct exposure to sunlight.
- D. Keep Safety Data Sheets (SDS) at the project site at all times during transportation, storage, and installation of materials.
- E. Comply with requirements from Owner to prevent overloading or disturbance of the structure when loading materials onto the roof.

1.08 FIELD CONDITIONS

- A. Do not apply roofing membrane during unsuitable weather. Refer to manufacturer's written instructions.
- B. Do not apply roofing membrane when ambient temperature is below 40 degrees F (5 degrees C) or above 90 degrees F (32 degrees C).
- C. Do not apply roofing membrane to damp or frozen deck surface or when precipitation is expected or occurring.
- D. Do not expose materials vulnerable to water or sun damage in quantities greater than can be weatherproofed the same day.
- E. Proceed with work so new roofing materials are not subject to construction traffic as work progresses.
- F. Do not allow grease, oil, fats, or other contaminants to come into direct contact with membrane.

1.09 WARRANTY

- A. See Section 017800 - Closeout Submittals for additional warranty requirements.
- B. Material Warranty: Provide membrane manufacturer's warranty agreeing to replace material that shows manufacturing defects within 10 years after installation.
- C. System Warranty: Provide manufacturer's system warranty agreeing to repair or replace roofing that leaks or is damaged due to wind or other natural causes.
 - 1. Warranty Term: 20 years.
 - 2. For repair and replacement include costs of both material and labor in warranty.
 - 3. Include damage caused by 1 inch (25 mm) maximum diameter hail.
 - 4. Exceptions NOT Permitted:

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Carlisle SynTec Systems: www.carlisle-syntec.com/#sle.
- B. Substitutions: Not permitted.

2.02 ROOFING APPLICATIONS

- A. EPDM Membrane Roofing: One ply membrane, fully adhered, over insulation.
- B. Roofing Assembly Performance Requirements and Design Criteria:
 - 1. Roof Covering External Fire Resistance Classification: Class A when tested per UL 790.
 - 2. Wind Uplift:
 - a. Designed to withstand wind uplift forces calculated with ASCE 7.
 - b. Design Wind Speed: In accordance with local building code and authorities having jurisdiction (AHJ).
 - 3. Insulation Thermal Resistance (R-Value): Provide R-30, minimum, over entire roof deck.
 - 4. Drainage: No standing water within 48 hours after precipitation.

2.03 ROOFING MEMBRANE AND ASSOCIATED MATERIALS

- A. Single Source Responsibility: Provide and install products from single source.
- B. Base Sheet: Manufacturer's standard, non-asphaltic, resin-bound, fiberglass-reinforced mat with mineral-filled, fire-resistant coating on one side.
 - 1. Product: Carlisle FR Base Sheet 1S.
- C. Membrane:
 - 1. Material: Ethylene propylene diene monomer (EPDM); ASTM D4637/D4637M, Type I (non-reinforced).
 - 2. Thickness: 60 mil, 0.060 inch (1.5 mm), minimum.
 - 3. Sheet Width: Factory fabricated into largest sheets possible.
 - 4. Products:
 - a. Carlisle SynTec Systems; Sure-Seal.
- D. Seaming Materials: As recommended by membrane manufacturer.
- E. Membrane Fasteners: As recommended and approved by membrane manufacturer.
- F. Vapor Retarder: Material approved by roof manufacturer; compatible with roofing and insulation materials.
- G. Flexible Flashing Material: Same material as membrane.
- H. Base Flashing: Provide waterproof, fully adhered base flashing system at all penetrations, plane transitions, and terminations.

2.04 DECK SHEATHING AND COVER BOARDS

- A. Deck Sheathing and Cover Board: Glass mat faced gypsum panels, ASTM C1177/C1177M, fire resistant type, 1/2 inch (13 mm) thick.
 - 1. Product:
 - a. GP Dens-Deck Prime, distributed by Carlisle SynTec Systems.

2.05 INSULATION

- A. Polyisocyanurate (ISO) Board Insulation: ASTM C1289, Type II, Class 1 - Faced with glass fiber reinforced cellulosic felt facers on both major surfaces of the core foam; Grade 1.
 - 1. Compressive Strength: 16 psi (110 kPa).

2.06 ACCESSORIES

- A. Prefabricated Flashing Accessories:
 - 1. Corners and Seams: Same material as membrane, in manufacturer's standard thicknesses.

2. Penetrations: Same material as membrane, with manufacturer's standard cut-outs, rigid inserts, clamping rings, and flanges.
 - a. Carlisle SynTec Systems; Sure-Seal Pressure-Sensitive Pipe Seals; with factory-applied tape on deck flange.
3. Sealant Pockets: Same material as membrane, with manufacturer's standard accessories, in manufacturer's standard configuration.
 - a. Carlisle SynTec Systems; Sure-Seal Pourable Sealant Pocket: 2 inches (51 mm) wide plastic support strip with factory-applied, adhesive-backed uncured EPDM flashing.
4. Carlisle SynTec Systems; Sure-Seal Pressure-Sensitive Reinforced Universal Securement Strip (RUSS):
 - a. 9 inches (229 mm) wide, 45 mil, 0.045 inch (1.1 mm) thick, reinforced EPDM membrane with 3 inches (76 mm) wide, 30 mil, 0.030 inch (0.76 mm) thick cured synthetic rubber with pressure-sensitive adhesive laminated to both edges.
- B. Asphalt Primer: ASTM D41/D41M primer for concrete decks, existing smooth built-up roofing, mineral surfaced cap sheet, or modified bitumen membranes.
- C. Hot Asphalt: ASTM D312/D312M.
- D. Insulation Adhesive: Two component polyurethane, expanding foam.
- E. Insulation Joint Tape: Glass fiber reinforced type as recommended by insulation manufacturer, compatible with roofing materials; 6 inches (152 mm) wide; self-adhering.
- F. Insulation Fasteners: Appropriate for purpose intended and approved by roofing manufacturer.
- G. Membrane Adhesive: As recommended by membrane manufacturer.
- H. Surface Conditioner for Adhesives: Compatible with membrane and adhesives.
- I. Strip Reglet Devices: Galvanized steel, maximum possible lengths per location, with attachment flanges.
- J. Sealants: As recommended by membrane manufacturer.
- K. Cleaner: Manufacturer's standard, clear, solvent-based cleaner.
- L. Edgings and Terminations: Manufacturer's standard edge and termination accessories.
 1. Products: Coping.
 - a. Carlisle SynTec Systems; SecurEdge 300 Coping.
 2. Termination Bar.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that surfaces and site conditions are ready to receive work.
- B. Verify deck is supported and secure.
- C. Verify deck is clean and smooth, flat, free of depressions, waves, or projections, properly sloped and suitable for installation of roof system.
- D. Verify deck surfaces are dry and free of snow or ice.
- E. Verify that roof openings, curbs, and penetrations through roof are solidly set, and cant strips are in place.

3.02 PREPARATION, GENERAL

- A. Clean substrate thoroughly prior to roof application.
- B. Do not begin work until other work that requires foot or equipment traffic on roof is complete.
- C. Apply manufacturer's recommended vapor retarder or temporary roof before roof installation.

3.03 WOOD DECK PREPARATION

- A. Verify flatness and tightness of joints of wood decking. Verify that all wood decking edges are fully supported. Fill knot holes with latex filler or completely cover with securely nailed sheet metal.
- B. Confirm dry deck by moisture meter with 12 percent moisture maximum.

3.04 INSTALLATION - GENERAL

- A. Perform work in accordance with manufacturer's instructions.
- B. Do not apply roofing membrane during unsuitable weather.
- C. Do not apply roofing membrane when ambient temperature is outside the temperature range recommended by manufacturer.
- D. Do not apply roofing membrane to damp or frozen deck surface or when precipitation is expected or occurring.
- E. Do not expose materials vulnerable to water or sun damage in quantities greater than can be weatherproofed the same day.
- F. Coordinate the work with installation of associated counterflashings installed by other sections as the work of this section proceeds.
- G. When substrate preparation is responsibility of another installer, notify Architect of unsatisfactory conditions before proceeding.

3.05 VAPOR RETARDER INSTALLATION

- A. Apply vapor retarder to deck surface with adhesive in accordance with manufacturer's instructions.
 - 1. Extend vapor retarder under cant strips and blocking to deck edge.
 - 2. Install flexible flashing from vapor retarder to air seal material of wall construction, lap and seal to provide continuity of the air barrier plane.
- B. Ensure vapor retarder is clean and dry, continuous, and ready for application of insulation.

3.06 INSULATION APPLICATION

- A. Attachment of Insulation:
 - 1. Mechanically fasten insulation to deck in accordance with roofing manufacturer's instructions and Factory Mutual FM DS 1-29 requirements.
- B. Lay subsequent layers of insulation with joints staggered minimum 6 inches (152 mm) from joints of preceding layer.
- C. Place tapered insulation to the required slope pattern in accordance with manufacturer's instructions.
- D. Lay boards with edges in moderate contact without forcing, and gap between boards no greater than 1/4 inch (6.4 mm). Cut insulation to fit neatly to perimeter blocking and around penetrations through roof.
- E. Tape joints of insulation in accordance with roofing and insulation manufacturers instructions.
- F. At roof drains, use factory-tapered boards to slope down to roof drains over 18 inches (457 mm).
- G. Do not apply more insulation than can be completely waterproofed in the same day.

3.07 MEMBRANE APPLICATION

- A. Roll out membrane, free from wrinkles or tears. Place sheet into place without stretching.
- B. Shingle joints on sloped substrate in direction of drainage.
- C. Fully Adhered Application: Apply adhesive at manufacturer's recommended rate. Fully embed membrane in adhesive except in areas directly over or within 3 inches (76 mm) of expansion joints. Fully adhere one roll before proceeding to adjacent rolls.

- D. Overlap edges and ends and seal seams by contact adhesive, minimum 3 inches (76 mm). Seal permanently waterproof.
- E. At intersections with vertical surfaces:
 - 1. Extend membrane over cant strips and up a minimum of 4 inches (102 mm) onto vertical surfaces.
 - 2. Fully adhere flexible flashing over membrane and up to nailing strips.
 - 3. Secure flashing to nailing strips at 4 inches (102 mm) on center.
 - 4. Insert flashing into reglets and secure.
- F. Coordinate installation of roof drains and sumps and related flashings, locate field splices away from low areas and roof drains, and lap upslope sheet over downslope sheet.
- G. Install walkway pads at areas of concentrated traffic as indicated on drawings, and space pad joints to permit drainage.
- H. Daily Seal: Install daily seal per manufacturer's instructions at the end of each workday. Prevent infiltration of water at incomplete flashings, terminations, and at unfinished membrane edges.

3.08 FIELD QUALITY CONTROL

- A. See Section 014000 - Quality Requirements for general requirements for field quality control and inspection.
- B. Require site attendance of roofing and insulation material manufacturers daily during installation of this work.

3.09 CLEANING

- A. See Section 017000 - Execution and Closeout Requirements for additional requirements.
- B. Remove wrappings, empty containers, paper, and other debris from the roof daily. Dispose of debris in compliance with local, State, and Federal regulations.
- C. Remove bituminous markings from finished surfaces.
- D. In areas where finished surfaces are soiled by work of this section, consult manufacturer of surfaces for cleaning advice and conform to their documented instructions.
- E. Repair or replace defaced or damaged finishes caused by work of this section.

3.10 PROTECTION

- A. Protect installed roofing and flashings from construction operations.
- B. Where traffic must continue over finished roof membrane, protect surfaces using durable materials.

END OF SECTION

**SECTION 076200
SHEET METAL FLASHING AND TRIM**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Fabricated sheet metal items, including flashings, counterflashings, and other items indicated in Schedule.
- B. Sealants for joints within sheet metal fabrications.

1.02 RELATED REQUIREMENTS

- A. Section 077123 - Manufactured Gutters and Downspouts.

1.03 REFERENCE STANDARDS

- A. AAMA 2604 - Voluntary Specification, Performance Requirements and Test Procedures for High Performance Organic Coatings on Aluminum Extrusions and Panels (with Coil Coating Appendix); 2022.
- B. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process; 2023.
- C. ASTM A755/A755M - Standard Specification for Steel Sheet, Metallic Coated by the Hot-Dip Process and Prepainted by the Coil-Coating Process for Exterior Exposed Building Products; 2018.
- D. ASTM C920 - Standard Specification for Elastomeric Joint Sealants; 2018 (Reapproved 2024).
- E. ASTM D4586/D4586M - Standard Specification for Asphalt Roof Cement, Asbestos-Free; 2007 (Reapproved 2018).
- F. SMACNA (ASMM) - Architectural Sheet Metal Manual; 2012.

1.04 SUBMITTALS

- A. See Section 013000 - Administrative Requirements for submittal procedures.
- B. Shop Drawings: Indicate material profile, jointing pattern, jointing details, fastening methods, flashings, terminations, and installation details.

1.05 QUALITY ASSURANCE

- A. Perform work in accordance with SMACNA (ASMM) requirements and standard details, except as otherwise indicated.

1.06 DELIVERY, STORAGE, AND HANDLING

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

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Sheet Metal Flashing and Trim:
 - 1. Hickman Edge Systems: www.hickmanedgesystems.com/#sle.
 - 2. Fry Reglet Corporation: www.fryreglet.com.

2.02 SHEET MATERIALS

- A. Galvanized Steel: ASTM A653/A653M, with G90/Z275 zinc coating; minimum 24-gauge, 0.0239-inch (0.61 mm) thick base metal.

2.03 PREPAINTED, METALLIC-COATED STEEL SHEETS

- A. Comply with ASTM A755/A755M.
- B. Metallic-Coated Steel Sheet Substrates:

1. Zinc-Coated, Galvanized, Steel Sheets: Commercial steel sheets, galvanized by hot-dip process; comply with ASTM A653/A653M; coating designation G90 (Z275).
- C. Substrate Preparation for Prefinishing: Clean and prepare substrate surfaces in accordance with coating manufacturer's recommendations for substrate type and application.
- D. Washcoats or Backercoats: Provide washcoats or backercoats in accordance with organic coating manufacturer's recommendations.
- E. Primer Coats: Provide basecoat primers in accordance with coating manufacturer's recommendations for substrate type, topcoat, and application.
- F. High-Performance Organic Coating System: Provide thermally cured, 50-percent PVDF or silicone-modified polyester systems in accordance with AAMA 2604; tested for weathering for 5 years with 5 delta units maximum of color change.

2.04 GUTTERS AND DOWNSPOUTS

- A. See Section 077123 for manufactured gutters and downspouts.
- B. Seal metal joints.

2.05 ACCESSORIES

- A. Fasteners: Galvanized steel, with soft neoprene washers.
- B. Primer Type: Zinc chromate.
- C. Concealed Sealants: Non-curing butyl sealant.
- D. Exposed Sealants: ASTM C920; elastomeric sealant, with minimum movement capability as recommended by manufacturer for substrates to be sealed; color to match adjacent material.
- E. Asphalt Roof Cement: ASTM D4586/D4586M, Type I, asbestos-free.

PART 3 EXECUTION

3.01 EXAMINATION

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

3.02 PREPARATION

- A. Install starter and edge strips, and cleats before starting installation.
- B. Back paint concealed metal surfaces with protective backing paint to a minimum dry film thickness of 15 mil, 0.015 inch (0.38 mm).

3.03 INSTALLATION

- A. Secure flashings in place using concealed fasteners, and use exposed fasteners only where permitted.
- B. Apply plastic cement compound between metal flashings and felt flashings.
- C. Fit flashings tight in place; make corners square, surfaces true and straight in planes, and lines accurate to profiles.

3.04 FIELD QUALITY CONTROL

- A. See Section 014000 - Quality Requirements for field inspection requirements.
- B. Inspection will involve surveillance of work during installation to ascertain compliance with specified requirements.

3.05 SCHEDULE

- A. Gutters and Downspouts:
- B. Scuppers:
- C. Coping, Cap, Parapet, Sill and Ledge Flashings:

- D. Flashings Associated with Shingle Roofing, including Valley, Hip, Ridge, Eave, Gutter Edge, Gable Edge, Chimney:
- E. Sheet Metal Roof Expansion Joint Covers, and Roof-to-Wall Joint Covers:
- F. Counterflashings at Roofing Terminations (over roofing base flashings):
- G. Counterflashings at Curb-Mounted Roof Items, including skylights and roof hatches:
- H. Roofing Penetration Flashings, for Pipes, Structural Steel, and Equipment Supports:

END OF SECTION

**SECTION 077123
MANUFACTURED GUTTERS AND DOWNSPOUTS**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Pre-finished aluminum gutters and downspouts.

1.02 RELATED REQUIREMENTS

- A. Section 076200 - Sheet Metal Flashing and Trim.

1.03 REFERENCE STANDARDS

- A. AAMA 2604 - Voluntary Specification, Performance Requirements and Test Procedures for High Performance Organic Coatings on Aluminum Extrusions and Panels (with Coil Coating Appendix); 2022.
- B. SMACNA (ASMM) - Architectural Sheet Metal Manual; 2012.

1.04 ADMINISTRATIVE REQUIREMENTS

- A. Comply with SMACNA (ASMM) for sizing components for rainfall intensity determined by a storm occurrence of 1 in 10 years.

1.05 SUBMITTALS

- A. See Section 013000 - Administrative Requirements for submittal procedures.
- B. Product Data: Provide data on prefabricated components.
- C. Shop Drawings: Indicate locations, configurations, jointing methods, fastening methods, locations, and installation details.

1.06 DELIVERY, STORAGE, AND HANDLING

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

PART 2 PRODUCTS

2.01 MATERIALS

- A. Pre-Finished Aluminum Sheet: ASTM B209/B209M; 0.032 inch (0.8 mm) thick.
 - 1. Finish: Plain, shop pre-coated with polyvinylidene fluoride (PVDF) coating.
 - 2. Color: White.

2.02 COMPONENTS

- A. Gutters: CDA semi-circular style profile.
- B. Downspouts: CDA round profile.
- C. Anchors and Supports: Profiled to suit gutters and downspouts.
 - 1. Anchoring Devices: In accordance with CDA requirements.
 - 2. Gutter Supports: Brackets.
 - 3. Downspout Supports: Brackets.
- D. Fasteners: Galvanized steel, with soft neoprene washers.

2.03 FABRICATION

- A. Form gutters and downspouts of profiles and size indicated.
- B. Fabricate with required connection pieces.
- C. Form sections square, true, and accurate in size, in maximum possible lengths, free of distortion or defects detrimental to appearance or performance. Allow for expansion at joints.
- D. Hem exposed edges of metal.
- E. Fabricate gutter and downspout accessories; seal watertight.

2.04 FINISHES

- A. Fluoropolymer Coating: High Performance Organic Finish, AAMA 2604, multiple coat, thermally cured fluoropolymer finish system; color as indicated.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify existing conditions before starting work.
- B. Verify that surfaces are ready to receive work.

3.02 INSTALLATION

- A. Install gutters, downspouts, and accessories in accordance with manufacturer's instructions.
- B. Sheet Metal: Join lengths with formed seams sealed watertight. Flash and seal gutters to downspouts and accessories.
- C. Slope gutters 1/4" per 10 feet.
- D. Connect downspouts to existing storm sewer system. Seal connection watertight. Where existing downspouts empty onto grade rather than into a system, maintain existing condition.

END OF SECTION

SECTION 077200 ROOF ACCESSORIES

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Roof curbs.
- B. Equipment rails.
- C. Roof penetrations mounting curbs.
- D. Ridge vents.
- E. Non-penetrating pedestals.

1.02 RELATED REQUIREMENTS

- A. Section 077100 - Roof Specialties: Other manufactured roof specialty items.

1.03 REFERENCE STANDARDS

- A. ASTM A123/A123M - Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products; 2017.
- B. ASTM A153/A153M - Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware; 2023.
- C. MSS SP-58 - Pipe Hangers and Supports - Materials, Design, Manufacture, Selection, Application, and Installation; 2018, with Amendment (2019).

1.04 SUBMITTALS

- A. See Section 013000 - Administrative Requirements for submittal procedures.
- B. Product Data: Manufacturer's data sheets on each product to be used.
 - 1. Preparation instructions and recommendations.
 - 2. Storage and handling requirements and recommendations.
 - 3. Installation methods.
 - 4. Maintenance requirements.
- C. Shop Drawings: Submit detailed layout developed for this project and provide dimensioned location and number for each type of roof accessory.
- D. Warranty Documentation:
 - 1. Submit manufacturer warranty.
 - 2. Ensure that forms have been completed in Owner's name and registered with manufacturer.
 - 3. Submit documentation that roof accessories are acceptable to roofing manufacturer, and do not limit the roofing warranty.

1.05 DELIVERY, STORAGE, AND HANDLING

- A. Store products in manufacturer's unopened packaging until ready for installation.
- B. Store products under cover and elevated above grade.

1.06 WARRANTY

- A. See Section 017800 - Closeout Submittals for additional warranty requirements.
- B. Manufacturer Warranty: Provide 2-year manufacturer warranty for roof accessories. Complete forms in Owner's name and register with manufacturer.

PART 2 PRODUCTS

2.01 ROOF CURBS

- A. Roof Curbs Mounting Assemblies: Factory fabricated hollow sheet metal construction, internally reinforced, and capable of supporting superimposed live and dead loads and

designated equipment load with fully mitered and sealed corner joints welded or mechanically fastened, and integral counterflashing with top and edges formed to shed water.

1. Roof Curb Mounting Substrate: Curb substrate consists of corrugated metal roof deck with insulation.
2. Sheet Metal Material:
 - a. Aluminum: 0.080 inch (2.03 mm) minimum thickness, with 3003 alloy, and H14 temper.
 - 1) Finish: Mill finish.
 - 2) Color: As selected by Architect from manufacturer's standard line of colors.
- B. Curbs Adjacent to Roof Openings: Provide curb on each side of opening, with top of curb horizontal for equipment mounting.
 1. Provide preservative treated wood nailers along top of curb.
 2. Insulate inside curbs with 1-1/2 inch (38 mm) thick fiberglass insulation.
 3. Height Above Finished Roof Surface: 8 inches (203 mm), minimum.
- C. Equipment Rail Curbs: Straight curbs on each side of equipment, with top of curbs horizontal and level with each other for equipment mounting.
 1. Height Above Finished Roof Surface: 8 inches (203 mm), minimum.
- D. Equipment Support: Straight curbs on each side of equipment, with top of curbs parallel with metal roofing system and each other for equipment mounting.
 1. Height Above Metal Roofing System: 8 inches (203 mm), minimum.
- E. Pipe, Duct, or Conduit Mounting Curbs: Vertical posts, minimum 8 inches (400 mm) square unless otherwise indicated.
 1. Height Above Finished Roof Surface: 8 inches (203 mm), minimum.

2.02 ROOF HATCHES AND VENTS

- A. Ridge Vents: Factory fabricated, formed panels with integral attachment flanges and snap-on cover.
 1. Vent Material: 22-gauge, 0.0299-inch (0.76 mm) steel.
 2. Perforated Screen: 0.050-inch (1.27 mm) thick aluminum.
 3. Brackets: Manufacturer's standard 20 gauge, 0.0359 inch (0.91 mm).
 4. Finish: Manufacturer's standard polyvinylidene fluoride (PVDF) coating.
 5. Finish Color: To be selected by Architect from manufacturer's standard range.

2.03 NON-PENETRATING ROOFTOP SUPPORTS/ASSEMBLIES

- A. Non-Penetrating Rooftop Support/Assemblies: Manufacturer-engineered and factory-fabricated, with pedestal bases that rest on top of roofing membrane, and not requiring any attachment to roof structure and not penetrating roofing assembly.
 1. Design Loadings and Configurations: As required by applicable codes.
 2. Height: Provide minimum clearance of 6 inches (152 mm) under supported items to top of roofing.
 3. Support Spacing and Base Sizes: As required to distribute load sufficiently to prevent indentation of roofing assembly.
 4. Steel Components: Stainless steel, or carbon steel hot-dip galvanized after fabrication in accordance with ASTM A123/A123M.
 5. Hardware, Bolts, Nuts, and Washers: Stainless steel, or carbon steel hot-dip galvanized after fabrication in accordance with ASTM A153/A153M.
- B. Pipe Supports: Provide attachment fixtures complying with MSS SP-58 and as indicated.
- C. Duct Supports: Provide extruded aluminum supports and sized in accordance with diameter of supported ducts, and with base that is non-penetrating of roofing membrane.
- D. Non-Penetrating Pedestals: Steel pedestals with square, round, or rectangular bases.
 1. Bases: High density polypropylene.

2. Base Sizes: As required to distribute load sufficiently to prevent indentation of roofing assembly.
3. Steel Components: Stainless steel, or carbon steel hot-dip galvanized after fabrication in accordance with ASTM A123/A123M.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Do not begin installation until substrates have been properly prepared.
- B. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.
- C. See Section 077100 for information on roof specialties.

3.02 PREPARATION

- A. Clean surfaces thoroughly prior to installation.
- B. Prepare surfaces using methods recommended by manufacturer for achieving acceptable results for applicable substrate under project conditions.

3.03 INSTALLATION

- A. Install in accordance with manufacturer's instructions, in manner that maintains roofing system weather-tight integrity.

3.04 CLEANING

- A. See Section 017000 - Execution and Closeout Requirements for additional requirements.
- B. Clean installed work to like-new condition.

3.05 PROTECTION

- A. Protect installed products until completion of project.
- B. Touch-up, repair or replace damaged products before Date of Substantial Completion.

END OF SECTION

SECTION 079200 JOINT SEALANTS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Nonsag gunnable joint sealants.
- B. Self-leveling pourable joint sealants.
- C. Joint backings and accessories.

1.02 RELATED REQUIREMENTS

- A. Section 093000 - Tiling: Sealant between tile and plumbing fixtures and at junctions with other materials and changes in plane.

1.03 REFERENCE STANDARDS

- A. ASTM C834 - Standard Specification for Latex Sealants; 2017 (Reapproved 2023).
- B. ASTM C919 - Standard Practice for Use of Sealants in Acoustical Applications; 2024.
- C. ASTM C920 - Standard Specification for Elastomeric Joint Sealants; 2018 (Reapproved 2024).
- D. ASTM C1193 - Standard Guide for Use of Joint Sealants; 2025.
- E. ASTM C1248 - Standard Test Method for Staining of Porous Substrate by Joint Sealants; 2022.

1.04 SUBMITTALS

- A. See Section 013000 - Administrative Requirements for submittal procedures.
- B. Product Data: Submit manufacturer's technical datasheets for each product to be used; include the following:
 - 1. Physical characteristics, including movement capability, VOC content, hardness, cure time, and color availability.
 - 2. List of backing materials approved for use with the specific product.
 - 3. Backing material recommended by sealant manufacturer.
 - 4. Substrates that product is known to satisfactorily adhere to and with which it is compatible.
 - 5. Substrates the product should not be used on.
 - 6. Substrates for which use of primer is required.
 - 7. Installation instructions, including precautions, limitations, and recommended backing materials and tools.
 - 8. Sample product warranty.
- C. Product Data for Accessory Products: Submit manufacturer's technical data sheet for each product to be used, including physical characteristics, installation instructions, and recommended tools.
- D. Color Cards for Selection: Where sealant color is not specified, submit manufacturer's color cards showing standard colors available for selection.
- E. Manufacturer's qualification statement.
- F. Installer's qualification statement.
- G. Executed warranty.

1.05 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum three years documented experience.
- B. Installer Qualifications: Company specializing in performing the work of this section and with at least three years of documented experience.

1.06 WARRANTY

- A. See Section 017800 - Closeout Submittals for additional warranty requirements.

- B. Manufacturer Warranty: Provide 2-year manufacturer warranty for installed sealants and accessories that fail to achieve a watertight seal, exhibit loss of adhesion or cohesion, or do not cure. Complete forms in Owner's name and register with manufacturer.
- C. Extended Correction Period: Correct defective work within 2-year period commencing on Date of Substantial Completion.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Nonsag Sealants:
 - 1. Franklin International, Inc: www.titebond.com/#sle.
 - 2. Pecora Corporation: www.pecora.com/#sle.
 - 3. Sika Corporation: usa.sika.com/#sle.
 - 4. Tremco Commercial Sealants & Waterproofing: www.tremcosealants.com/#sle.
- B. Self-Leveling Sealants:
 - 1. Pecora Corporation: www.pecora.com/#sle.
 - 2. Sika Corporation: usa.sika.com/#sle.
 - 3. Tremco Commercial Sealants & Waterproofing: www.tremcosealants.com/#sle.

2.02 JOINT SEALANT APPLICATIONS

- A. Scope:
 - 1. Exterior Joints:
 - a. Seal the following joints:
 - 1) Joints between doors, windows, and other frames or adjacent construction.
 - 2) Joints between different exposed materials.
 - 3) Locations indicated on the drawings.
 - 2. Interior Joints:
 - a. Seal the following joints:
 - 1) Joints between door frames and window frames and adjacent construction.
 - 2) In sound-rated wall and ceiling assemblies, gaps at electrical outlets, wiring devices, and piping penetrations.
 - 3) In sound-rated wall and ceiling assemblies, seal joints between wall assemblies and ceiling assemblies; between wall assemblies and other construction; between ceiling assemblies and other construction.
 - 3. Do Not Seal:
 - a. Intentional weep holes in masonry.
 - b. Joints where sealant installation is specified in other sections.
 - c. Joints between suspended ceilings and walls.
- B. Exterior Joints: Use nonsag nonstaining silicone sealant, unless otherwise indicated.
 - 1. Control and Expansion Joints in Concrete Paving: Self-leveling polyurethane traffic-grade sealant.
- C. Interior Joints: Use nonsag polyurethane sealant, unless otherwise indicated.
 - 1. Wall and Ceiling Joints in Wet Areas: Nonsag polyurethane sealant for continuous liquid immersion.
 - 2. Floor Joints in Wet Areas: Nonsag polyurethane non-traffic-grade sealant suitable for continuous liquid immersion.
 - 3. Joints between Tile in Wet Areas and Floors, Walls, and Ceilings: Mildew-resistant silicone sealant; white.
 - 4. In Sound-Rated Assemblies: Acrylic emulsion latex sealant.
- D. Interior Wet Areas: restrooms, kitchens, food service areas, and food processing areas; fixtures in wet areas include plumbing fixtures, food service equipment, countertops, cabinets, and other similar items.

- E. Sound-Rated Assemblies: Walls and ceilings identified as STC-rated, sound-rated, or acoustical.

2.03 JOINT SEALANTS - GENERAL

- A. Colors: As indicated on drawings.

2.04 NONSAG JOINT SEALANTS

- A. Nonstaining Silicone Sealant: ASTM C920, Grade NS, Uses M, A, G, and O; not expected to withstand continuous water immersion or traffic.
 - 1. Movement Capability: Plus and minus 50 percent, minimum.
 - 2. Nonstaining to Porous Stone: Nonstaining to light-colored natural stone when tested in accordance with ASTM C1248.
 - 3. Dirt Pick-Up: Reduced dirt pick-up compared to other silicone sealants.
 - 4. Color: Match adjacent finished surfaces.
 - 5. Products:
 - a. Pecora Corporation; Pecora 890 NST (Non-Staining Technology): www.pecora.com/#sle.
 - b. Sika Corporation; Sikasil WS-290: usa.sika.com/#sle.
 - c. Tremco Commercial Sealants & Waterproofing; Tremsil 200: www.tremcosealants.com/#sle.
- B. Mildew-Resistant Silicone Sealant: ASTM C920, Grade NS, Uses M and A; single component, mildew resistant; not expected to withstand continuous water immersion or traffic.
 - 1. Color: White.
 - 2. Products:
 - a. Pecora Corporation; Pecora 898 NST (Non-Staining Technology): www.pecora.com/#sle.
 - b. Sika Corporation; Sikasil GP: usa.sika.com/#sle.
- C. Polyurethane Sealant: ASTM C920, Grade NS, Uses M and A; single or multi-component; not expected to withstand continuous water immersion or traffic.
 - 1. Movement Capability: Plus and minus 25 percent, minimum.
 - 2. Color: Match adjacent finished surfaces.
 - 3. Products:
 - a. Pecora Corporation; DynaFlex: www.pecora.com/#sle.
 - b. Sika Corporation; Sikaflex-1A: usa.sika.com/#sle.
 - c. Tremco Commercial Sealants & Waterproofing; Dymonic 100: www.tremcosealants.com/#sle.
- D. Polyurethane Sealant for Continuous Water Immersion: ASTM C920, Grade NS, Uses M and A; single or multicomponent; explicitly approved by manufacturer for continuous water immersion; suitable for traffic exposure when recessed below traffic surface.
 - 1. Movement Capability: Plus and minus 35 percent, minimum.
 - 2. Color: Match adjacent finished surfaces.
 - 3. Products:
 - a. Sika Corporation; Sikaflex-1A: usa.sika.com/#sle.
- E. Acrylic Emulsion Latex: Water-based; ASTM C834, single component, nonstaining, nonbleeding, nonsagging; not intended for exterior use.
 - 1. Color: Standard colors matching finished surfaces.
 - 2. Products:
 - a. Pecora Corporation; AC-20 +Silicone: www.pecora.com/#sle.
 - b. Tremco Commercial Sealants & Waterproofing; Tremflex 834: www.tremcosealants.com/#sle.

2.05 SELF-LEVELING JOINT SEALANTS

- A. Self-Leveling Polyurethane Sealant: ASTM C920, Grade P, Uses M and A; single or multicomponent; explicitly approved by manufacturer for traffic exposure; not expected to withstand continuous water immersion .
 - 1. Movement Capability: Plus and minus 25 percent, minimum.
 - 2. Color: To be selected by Architect from manufacturer's standard range.
 - 3. Products:
 - a. Sika Corporation; Sikaflex SL 1: usa.sika.com/#sle.

2.06 ACCESSORIES

- A. Sealant Backing Materials, General: Materials placed in joint before applying sealants; assists sealant performance and service life by developing optimum sealant profile and preventing three-sided adhesion; type and size recommended by sealant manufacturer for compatibility with sealant, substrate, and application.
- B. Masking Tape: Self-adhesive, nonabsorbent, nonstaining, removable without adhesive residue, and compatible with surfaces adjacent to joints and sealants.

PART 3 EXECUTION

3.01 EXAMINATION

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

3.02 PREPARATION

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

3.03 INSTALLATION

- A. Install this work in accordance with sealant manufacturer's requirements for preparation of surfaces and material installation instructions.
- B. Provide joint sealant installations complying with ASTM C1193.
- C. Install acoustical sealant application work in accordance with ASTM C919.
- D. Measure joint dimensions and size joint backers to achieve width-to-depth ratio, neck dimension, and surface bond area as recommended by manufacturer, except where specific dimensions are indicated.
- E. Install bond breaker backing tape where backer rod cannot be used.
- F. Install sealant free of air pockets, foreign embedded matter, ridges, and sags, and without getting sealant on adjacent surfaces.
- G. Do not install sealant when ambient temperature is outside manufacturer's recommended temperature range, or will be outside that range during the entire curing period, unless manufacturer's approval is obtained and instructions are followed.
- H. Nonsag Sealants: Tool surface concave, unless otherwise indicated; remove masking tape immediately after tooling sealant surface.

3.04 FIELD QUALITY CONTROL

- A. Remove and replace failed portions of sealants using same materials and procedures as indicated for original installation.

3.05 POST-OCCUPANCY

- A. Post-Occupancy Inspection: Perform visual inspection of entire length of project sealant joints at a time that joints have opened to their greatest width, i.e., at low temperature in thermal cycle. Report failures immediately and repair them.

END OF SECTION

**SECTION 080671
DOOR HARDWARE SCHEDULE**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Preliminary schedule of door hardware sets for swinging and folding as indicated on drawings.

1.02 RELATED REQUIREMENTS

- A. Section 087100 - Door Hardware: Requirements to comply with in coordination with this section.

1.03 REFERENCE STANDARDS

- A. BHMA A156.3 - Exit Devices; 2025.
- B. BHMA A156.5 - Cylinders and Input Devices for Locks; 2020.
- C. BHMA A156.18 - Standard for Materials and Finishes; 2020.
- D. DHI (H&S) - Sequence and Format for the Hardware Schedule; 2019.

1.04 SUBMITTALS

- A. See Section 013000 - Administrative Requirements, for submittal procedures.
- B. Comply with submittal requirements as indicated in Section 087100.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Only manufacturers listed in Door Hardware Schedule or Section 087100 are considered acceptable, unless noted otherwise.
- B. Obtain each type of door hardware as indicated from a single manufacturer and single supplier.
- C. Manufacturer's Abbreviations: Coordinate with manufacturers listed in Section 087100.
 - 1. BAS - Best Access Systems.
 - 2. COM - Command Access Technologies
 - 3. GJ - Glynn Johnson.
 - 4. HES - HES.
 - 5. IVE - Ives.
 - 6. JOH - Johnson Hardware.
 - 7. LCN - LCN.
 - 8. NGP - National Guard Products.
 - 9. PEM - Pemko.
 - 10. SCH - Schlage.
 - 11. VD - Von Duprin.
 - 12. ZRO - Zero Industries, Inc.

2.02 DESCRIPTION

- A. Door hardware sets provided represent the design intent, they are only a guideline and should not be considered a detailed or complete hardware schedule.
 - 1. Provide door hardware item(s) as required for similar purposes, even when item is not listed for a door in Door Hardware Schedule.
 - 2. Necessary items that are not included in a Hardware Set should be added and have the appropriate additional hardware as required for proper application and functionality.
 - 3. Door hardware supplier is responsible for providing proper size and hand of door for products required in accordance with Door Hardware Schedule and as indicated on drawings.
 - 4. Quantities listed are for each Pair (PR) of doors, or for each Single (SGL) door, as indicated in hardware sets.

2.03 LOCK FUNCTION CODES

- A. Function Codes for Cylindrical Locks: Complying with BHMA A156.5.
1. Code F82; Entry Lock: Push button locking. Button on inside locks outside knob/lever until unlocked by key or by rotating the inside knob/lever. Inside knob/lever always free. Deadlocking latch bolt.
 2. Code F84; Classroom Lock: Outside knob/lever locked/unlocked by key in outside knob/lever. Inside knob/lever always free. Deadlocking latchbolt.
 3. Code F86; Storeroom Lock: Outside knob/lever always locked/rigid. Latchbolt retracted by key in outside knob/lever or by rotating inside knob/lever. Inside knob/lever always free. Deadlocking latchbolt.
- B. Function Codes for Exit Devices: Complying with BHMA A156.3.
1. Code 08; Exit Device: Entrance by knob/lever. Key (pullside) locks/unlocks knob/lever.
 2. Code 09; Exit Device: Entrance by knob/lever with key (pullside) only. Unit is locked when the key is removed.

2.04 FINISHES

- A. Finishes: Complying with BHMA A156.18.
1. Code 643e: Aged Bronze, Satin Bronze Plated, Blackened, Satin Relieved, Clear Coated (former US equivalent US11).

PART 3 EXECUTION

3.01 DOOR HARDWARE SCHEDULE

- A. Organize listing of door hardware components within each hardware set in compliance with 10-Part scheduling sequence indicated in DHI (H&S), unless otherwise indicated.

3.02 HARDWARE SET # 01: "CORRIDOR TO ROOM"

- A. For use on Door Number(s): 102,102B, 104, 105, 116A, 200, 202, 204, 205A, 207, 212, 213, 213A, & 214.
- B. Provide for each Single (SGL) door(s).

UNITS	LOCK	ITEM	DESCRIPTION	FINISH	MFR
3 Each		HINGE	5BB1 4.5 X 4.5	643e	IVE
1 Each	F84	CLASSROOM LOCK	ND70-L-ATH	643e	SCH
1 Each		PERMANENT CORE		613	BAS
1 Each		WALL STOP	WS407CVX	643e	IVE
3 Each		SILENCER	SR64	GRY	IVE

- C. Door may be locked or unlocked with a key, free egress at all times..
- D. Doors 116A & 202: Provide floor stop instead of wall stop.
- E. Door 205A: No wall stop. No floor stop.

3.03 HARDWARE SET # 02: "STORAGE ROOM"

- A. For use on Door Number(s): 101,106, 110, 115, 201.
- B. Provide for each Single (SGL) door(s).

UNITS	LOCK	ITEM	DESCRIPTION	FINISH	MFR
3 Each		HW HINGE	5BB1HW 4.5 X 4.5	643e	IVE
1 Each	F86	STOREROOM LOCK	ND80-L-ATH	643e	SCH
1 Each		PERMANENT CORE	OWNER SUPPLIED	613	BAS
1 Each		SURFACE CLOSER	4040XP	643e	LCN
1 Each		KICK PLATE	8400 10 Inch X 2 Inch LDW	643e	IVE
1 Each		OH STOP	410S	643e	GJ
3 Each		SILENCER	SR64	GRY	IVE

- C. Door locked at all times, free egress at all times, self closing.

3.04 HARDWARE SET # 03: "STORAGE ROOM W/ ACCESS CONTROL"

- A. For use on Door Number(s): B110 & 113.

- B. Provide for each Single (SGL) door(s).

UNITS	LOCK	ITEM	DESCRIPTION	FINISH	MFR
3 Each		HW HINGE	5BB1HW 4.5 X 4.5	643e	IVE
1 Each	F86	STOREROOM LOCK	ND80-L-ATH	643e	SCH
1 Each		PERMANENT CORE	OWNER SUPPLIED	613	BAS
1 Each		SURFACE CLOSER	4040 XP	643e	LCN
1 Each		KICK PLATE	8400 10 X 2 Inch LDW	643e	IVE
1 Each		OH STOP	410S	643e	GJ
3 Each		SILENCER	SR64	GRY	IVE
1 Each		ELECTRIC STRIKE	5200-C	613E	HES
1 Each		CARD READER	OWNER SUPPLIED		

- C. Door locked at all times, free egress at all times, self closing, access control device, fail-secure.
- D. Door B10: Provide electric strike & card reader only. Otherwise existing door, frame & hardware to remain.

3.05 HARDWARE SET # 04: "STORAGE ROOM PAIR"

- A. For use on Door Number(s): 113A, 117, & 211.

- B. Provide for each Pair (PR) door(s).

UNITS	LOCK	ITEM	DESCRIPTION	FINISH	MFR
6 Each		HINGE	5BB1 4.5 X 4.5	643e	IVE
1 Each	F86	STOREROOM LOCK	ND80-L-ATH	643e	SCH
1 Each		PERMANENT CORE	OWNER SUPPLIED	613	BAS
2 Each		FLUSH BOLTS	FB358 (INACTIVE LEAF)	643e	IVE
2 Each		DUSTPROOF STRIKE	DP2	643e	IVE
2 Each		OH STOP	410S	643e	GJ
2 Each		SURFACE CLOSER	4040 XP	643e	LCN

- C. Door locked at all times, free egress at all times, self closing.

3.06 HARDWARE SET # 05: "FIRST FLOOR TOILET ROOM"

- A. For use on Door Number(s): 103 & 108.

- B. Provide for each Single (SGL) door(s).

UNITS	LOCK	ITEM	DESCRIPTION	FINISH	MFR
3 Each		HINGE	5BB1 4.5 X 4.5	643e	IVE
1 Each		PUSH PLATE	8200 4 X 16 INCH	643e	IVE
1 Each		PULL PLATE	8303-8 3.5 X 15 INCH	643e	IVE
1 Each		SURFACE CLOSER	4040 XP	643e	LCN
1 Each		KICK PLATE	8400 10 X 2 Inch LDW	643e	IVE
1 Each		WALL STOP	WS407CVX	643e	IVE
3 Each		SILENCER	SR64	GRY	IVE

- C. Door unlocked at all times, free egress at all times, self closing.

3.07 HARDWARE SET # 06: "BREAKROOM"

- A. For use on Door Number(s): 203A.

- B. Provide for each Single (SGL) door(s).

UNITS	LOCK	ITEM	DESCRIPTION	FINISH	MFR
3 Each		HW HINGE	5BB1HW 4.5 X 4.5	643e	IVE
1 Each		PUSH PLATE	8200 4 X 16 INCH	643e	IVE
1 Each		PULL PLATE	8303-8 3.5 X 15 INCH	643e	IVE
1 Each		SURFACE CLOSER	4040XP-3049	643e	LCN
1 Each		KICK PLATE	8400 10 X 2 Inch LDW	643e	IVE
1 Each		WALL STOP	WS407CVX	643e	IVE
3 Each		SILENCER	SR64	GRY	IVE

C. Passage set, free entry & egress at all times, self closing with hold-open arm.

3.08 HARDWARE SET # 07: "SECOND FLOOR TOILET ROOM"

A. For use on Door Number(s): 208 & 209.

B. Provide for each Single (SGL) door(s).

UNITS	LOCK	ITEM	DESCRIPTION	FINISH	MFR
3 Each		HINGE	5BB1 4.5 X 4.5	643e	IVE
1 Each	F82	ENTRANCE LOCK	ND91-L-ATH 10D	643e	SCH
1 Each		PERMANENT CORE	OWNER SUPPLIED	613	BAS
1 Each		WALL STOP	WS407CVX	643e	IVE
1 Each		SURFACE CLOSER	4040 XP	643e	LCN
1 Each		KICK PLATE	8400 10' X 2' LDW	643e	IVE
1 Each		SILENCER	SR64	GRY	IVE

C. Free egress at all times, locked status indication trim on corridor side .

3.09 HARDWARE SET # 08: "BALLROOM SERVICE"

A. Double acting; no lock.

B. For use on Door Number(s): 114A, 114B, & 116.

C. Provide for each Single (SGL) door(s).

UNITS	LOCK	ITEM	DESCRIPTION	FINISH	MFR
1 Each		PIVOT SET	7255 SET	643e	IVE
2 Each		PUSH PLATE	8200 4 X 16 INCH	643e	IVE
1 Each		CONCEALED CLOSER	6033-3077T	622	LCN
2 Each		KICK PLATE	8400 10' X 2' LDW	643e	IVE

D. Passage set, free entry and egress, self closing.

3.10 HARDWARE SET # 09: "BALLROOM SERVICE PAIR"

A. Double acting; no lock.

B. For use on Door Number(s): 114 & 114C.

C. Provide for each Pair (PR) door(s).

UNITS	LOCK	ITEM	DESCRIPTION	FINISH	MFR
2 Each		PIVOT SET	7255 SET	643e	IVE
4 Each		PUSH PLATE	8200 4 X 16 INCH	643e	IVE
2 Each		CONCEALED CLOSER	6033-3077T	622	LCN
4 Each		KICK PLATE	8400 10' X 2' LDW	643e	IVE

D. Passage set, free entry and egress, self closing.

3.11 HARDWARE SET # 10: "BIFOLD"

A. For use on Door Number(s): 102A & 107.

B. Provide for each Pair (PR) door(s).

UNITS	LOCK	ITEM	DESCRIPTION	FINISH	MFR
2 Each		2 PANEL HW SET	170W363H	WHITE	JOH

C. No locking.

3.12 HARDWARE SET # 11: "INTERIOR UNEQUAL PAIR"

A. For use on Door Number(s): 109 & 109A.

B. Provide for each Pair (PR) door(s).

UNITS	LOCK	ITEM	DESCRIPTION	FINISH	MFR
6 Each		HW HINGE	5BB1HW 4.5 X 4.5	643e	IVE
1 Each	08	CONCEALED ROD EXIT DEVICE	9847WDC-L-996-07	643e	VD
1 Each		PERMANENT CORE	OWNER SUPPLIED	613	BAS
2 Each		SURFACE CLOSER	4040XP-3077	643e	LCN
2 Each		KICK PLATE	8400 10' X 2' LDW	643e	IVE
2 Each		FLUSH BOLTS	FB358 (INACTIVE LEAF)	643e	IVE
2 Each		DUSTPROOF STRIKE	DP2	643e	IVE
2 Each		OH STOP	410S	643e	GJ
4 Each		SILENCER	SR64	GRY	IVE

C. Free egress at all times, self closing with hold-open arm.

D. Provide trim/ cover for finished instalation for back of exit device where visble through full glass door.

3.13 HARDWARE SET # 12: "EXTERIOR EXIT W/ ACCESS CONTROL"

A. For use on Door Number(s): B07 & 116B.

B. Provide for each Single (SGL) door(s).

UNITS	LOCK	ITEM	DESCRIPTION	FINISH	MFR
3 Each		HW HINGE	5BB1HW 4.5 X 4.5	643e	IVE
1 Each	09	RIM EXIT DEVICE	QEL-98-L-996-07	643e	VD
1 Each		PERMANENT CORE	OWNER SUPPLIED	613	BAS
1 Each		MOTORIZED LATCH RETRACTION KIT	MLRK1-VD	-	COM
1 Each		SURFACE CLOSER	4040 XP	643e	LCN
1 Each		KICK PLATE	8400 10' X 2' LDW	643e	IVE
1 Each		WEATHERSTRIPPING	188 PSA 17	GY	ZRO
1 Each		DOOR SWEEP	8192	D	ZRO
1 Each		THRESHOLD	545	B-ORB	ZRO
1 Each		ELECTRIC POWER TRANSFER	EPT-2	643e	VD
1 Each		CARD READER	OWNER SUPPLIED		

C. Door locked at all times, free egress at all times, self closing, access control device, fail-secure.

3.14 HARDWARE SET # 13: "EXTERIOR BASEMENT PAIR W/ ACCESS CONTROL"

A. For use on Door Number(s): B01.

B. Provide for each Pair (PR) door(s).

UNITS	LOCK	ITEM	DESCRIPTION	FINISH	MFR
6 Each		HW HINGE	5BB1HW 4.5 X 4.5	643e	IVE
1 Each	09	CONCEALED ROD EXIT DEVICE	QEL-9847-L-996-07	643e	VD
1 Each		PERMANENT CORE	OWNER SUPPLIED	613	BAS
1 Each		MOTORIZED LATCH RETRACTION KIT	MLRK1-VD	-	COM
2 Each		SURFACE CLOSER	4040 XP	643e	LCN
2 Each		KICK PLATE	8400 10' X 2' LDW	643e	IVE
2 Each		FLISH BOLTS	FB358 (INACTIVE LEAF)	643e	IVE
2 Each		DUSTPROOF STRIKE	DP2	643e	IVE
1 Each		WEATHERSTRIPPING	188 PSA 25	GY	ZRO
2 Each		DOOR SWEEP	8192	D	ZRO
1 Each		THRESHOLD	545	B-ORB	ZRO
1 Each		ELECTRIC POWER TRANSFER	EPT-2	643e	VD
1 Each		CARD READER	OWNER SUPPLIED		

C. Door locked at all times, free egress at all times, self closing, access control device, fail-secure.

3.15 HARDWARE SET # 14: "EXTERIOR EXIT PAIR W/ ACCESS CONTROL"

A. For use on Door Number(s): 111.

B. Provide for each Pair (PR) door(s).

UNITS	LOCK	ITEM	DESCRIPTION	FINISH	MFR
6 Each		HW HINGE	5BB1HW 4.5 X 4.5	643e	IVE
1 Each	09	CONCEALED ROD EXIT DEVICE	QEL-9847-L-996-07	643e	VD
1 Each	09	CONCEALED ROD EXIT DEVICE	9847-L-996-07	643e	VD
2 Each		PERMANENT CORE	OWNER SUPPLIED	613	BAS
1 Each		MOTORIZED LATCH RETRACTION KIT	MLRK1-VD	-	COM
2 Each		SURFACE CLOSER	4040 XP	643e	LCN
2 Each		KICK PLATE	8400 10' X 2' LDW	643e	IVE
1 Each		WEATHERSTRIPPING	188 PSA 25	GY	ZRO
2 Each		DOOR SWEEP	8192	D	ZRO
1 Each		THRESHOLD	545	B-ORB	ZRO
1 Each		ELECTRIC POWER TRANSFER	EPT-2	643e	VD
1 Each		CARD READER	OWNER SUPPLIED		

C. Door locked at all times, free egress at all times, self closing, access control device, fail-secure.

D. Provide trim/ cover for finished installation for back of exit device where visible through full glass door.

3.16 HARDWARE SET # 15: "EXTERIOR PAIR"

A. For use on Door Number(s): 112A & 112B.

B. Provide for each Pair (PR) door(s).

UNITS	LOCK	ITEM	DESCRIPTION	FINISH	MFR
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6 Each		HW HINGE	5BB1HW 4.5 X 4.5	643e	IVE
2 Each	08	CONCEALED ROD EXIT DEVICE	9847-L-996-07	643e	VD
2 Each		PERMANENT CORE	OWNER SUPPLIED	613	BAS
2 Each		SURFACE CLOSER	4040XP-3077	643E	LCN
2 Each		KICK PLATE	8400 10' X 2' LDW	643E	IVE
1 Each		WEATHERSTRIPPING	199 PSA 25	GY	ZRO
2 Each		DOOR SWEEP	8192	D	ZRO
1 Each		THRESHOLD	545	B-ORB	ZRO

- C. Free egress at all time, self closing with hold-open arm.
- D. Provide trim/ cover for finished installation for back of exit device where visible through full glass door.

3.17 HARDWARE SET # 16: "INTERIOR EXIT PAIR"

- A. For use on Door Number(s): 112.
- B. Provide for each Pair (PR) door(s).

UNITS	LOCK	ITEM	DESCRIPTION	FINISH	MFR
6 Each		HW HINGE	5BB1HW 4.5 X 4.5	643e	IVE
2 Each	08	CONCEALED ROD EXIT DEVICE	9847WDC-L-996-07	643e	VD
2 Each		PERMANENT CORE	OWNER SUPPLIED	613	BAS
2 Each		SURFACE CLOSER	4040XP-3077	643e	LCN
2 Each		KICK PLATE	8400 10' X 2' LDW	643e	IVE
2 Each		OH STOP	410S	643e	GJ
4 Each		SILENCER	SR64	GRY	IVE

- C. Free egress at all times, self closing with hold-open arm.
- D. Provide trim/ cover for finished installation for back of exit device where visible through full glass door.

3.18 HARDWARE SET # 17: "EXTERIOR EXIT"

- A. For use on Door Number(s): 203.
- B. Provide for each Single (SGL) door(s).

UNITS	LOCK	ITEM	DESCRIPTION	FINISH	MFR
3 Each		HW HINGE	5BB1HW 4.5 X 4.5	643e	IVE
1 Each	09	RIM EXIT DEVICE	98-L-996-07	643e	VD
1 Each		PERMANENT CORE	OWNER SUPPLIED	613	BAS
1 Each		SURFACE CLOSER	4040 XP	643e	LCN
1Each		KICK PLATE	8400 10' X 2' LDW	643e	IVE
1 Each		WEATHERSTRIPPING	188 PSA 17	GY	ZRO
1 Each		DOOR SWEEP	8192	D	ZRO
1 Each		THRESHOLD	545	B-ORB	ZRO

- C. Door locked at all times, free egress at all times, self closing.

3.19 HARDWARE SET # 18: "OFFICE SUITE W/ ACCESS CONTROL"

- A. For use on Door Number(s): 206.
- B. Provide for each Single (SGL) door(s).

UNITS	LOCK	ITEM	DESCRIPTION	FINISH	MFR
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3 Each		HW HINGE	5BB1HW 4.5 X 4.5	643e	IVE
1 Each	F84	CLASSROOM LOCK	ND70-L-ATH	643e	SCH
1 Each		PERMANENT CORE	OWNER SUPPLIED	613	BAS
1 Each		SURFACE CLOSER	4040 XP	643e	LCN
1 Each		WALL STOP	WS407CVX	643e	IVE
3 Each		SILENCER	SR64	GRY	IVE
1 Each		ELECTRIC STRIKE	5200-C	613E	HES
1 Each		CARD READER	OWNER SUPPLIED		

C. Free egress at all times, self closing, access control device, fail-secure.

END OF SECTION

**SECTION 081113
HOLLOW METAL DOORS AND FRAMES**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Non-fire-rated hollow metal doors and frames.
- B. Hollow metal frames for wood doors.
- C. Thermally insulated hollow metal doors with frames.
- D. Accessories, including glazing, louvers, and matching panels.

1.02 RELATED REQUIREMENTS

- A. Section 087100 - Door Hardware.
- B. Section 088000 - Glazing: Glass for doors and borrowed lites.
- C. Section 099113 - Exterior Painting: Field painting.
- D. Section 099123 - Interior Painting: Field painting.

1.03 ABBREVIATIONS AND ACRONYMS

- A. ANSI: American National Standards Institute.
- B. HMMA: Hollow Metal Manufacturers Association.
- C. NAAMM: National Association of Architectural Metal Manufacturers.
- D. SDI: Steel Door Institute.

1.04 REFERENCE STANDARDS

- A. ADA Standards - 2010 ADA Standards for Accessible Design; 2010.
- B. ANSI/SDI A250.4 - Test Procedure and Acceptance Criteria for Physical Endurance for Steel Doors, Frames and Frame Anchors; 2024.
- C. ANSI/SDI A250.6 - Recommended Practice for Hardware Reinforcing on Standard Steel Doors and Frames; 2024.
- D. ANSI/SDI A250.8 - Specifications for Standard Steel Doors and Frames (SDI-100); 2023.
- E. ANSI/SDI A250.10 - Test Procedure and Acceptance Criteria for Prime Painted Steel Surfaces for Steel Doors and Frames; 2025.
- F. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process; 2023.
- G. ASTM A1008/A1008M - Standard Specification for Steel, Sheet, Cold-Rolled, Carbon, Structural, High-Strength Low-Alloy, High-Strength Low-Alloy with Improved Formability, Required Hardness, Solution Hardened, and Bake Hardenable; 2023, with Editorial Revision.
- H. ASTM A1011/A1011M - Standard Specification for Steel, Sheet and Strip, Hot-Rolled, Carbon, Structural, High-Strength Low-Alloy, High-Strength Low-Alloy with Improved Formability, and Ultra-High Strength; 2023.
- I. BHMA A156.115 - Hardware Preparation in Steel Doors and Frames; 2016.
- J. ICC A117.1 - Accessible and Usable Buildings and Facilities; 2017.
- K. NAAMM HMMA 830 - Hardware Selection for Hollow Metal Doors and Frames; 2002.
- L. NAAMM HMMA 831 - Hardware Locations for Hollow Metal Doors and Frames; 2024.
- M. NAAMM HMMA 840 - Guide Specifications for Receipt, Storage and Installation of Hollow Metal Doors and Frames; 2024.
- N. NAAMM HMMA 861 - Guide Specifications for Commercial Hollow Metal Doors and Frames; 2014.

1.05 SUBMITTALS

- A. See Section 013000 - Administrative Requirements for submittal procedures.
- B. Product Data: Materials and details of design and construction, hardware locations, reinforcement type and locations, anchorage and fastening methods, and finishes; and one copy of referenced standards/guidelines.
- C. Shop Drawings: Details of each opening, showing elevations, glazing, frame profiles, and any indicated finish requirements.
- D. Installation Instructions: Manufacturer's published instructions, including any special installation instructions relating to this project.
- E. Manufacturer's Qualification Statement.
- F. Installer's Qualification Statement.

1.06 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Provide hollow metal doors and frames from SDI Certified manufacturer: <https://steeldoor.org/sdi-certified/#sle>.
- B. Installer Qualifications: Company specializing in performing work of the type specified and with at least three years of documented experience.
- C. Maintain at project site copies of reference standards relating to installation of products specified.

1.07 DELIVERY, STORAGE, AND HANDLING

- A. Comply with NAAMM HMMA 840 or ANSI/SDI A250.8 (SDI-100) in accordance with specified requirements.
- B. Protect with resilient packaging; avoid humidity build-up under coverings; prevent corrosion and adverse effects on factory applied painted finish.

PART 2 PRODUCTS

2.01 PERFORMANCE REQUIREMENTS

- A. Requirements for Hollow Metal Doors and Frames:
 - 1. Steel Sheet: Comply with one or more of the following requirements; galvanized steel complying with ASTM A653/A653M, cold-rolled steel complying with ASTM A1008/A1008M, or hot-rolled pickled and oiled (HRPO) steel complying with ASTM A1011/A1011M, commercial steel (CS) Type B, for each.
 - 2. Accessibility: Comply with ICC A117.1 and ADA Standards.
 - 3. Exterior Door Top Closures: Flush end closure channel, with top and door faces aligned.
 - 4. Door Edge Profile: Manufacturer's standard for application indicated.
 - 5. Typical Door Face Sheets: Flush.
 - 6. Glazed Lights: Non-removable stops on non-secure side; sizes and configurations as indicated on drawings. Style: Manufacturer's standard.
 - 7. Hardware Preparations, Selections and Locations: Comply with NAAMM HMMA 830 and NAAMM HMMA 831 or BHMA A156.115 and ANSI/SDI A250.8 (SDI-100) in accordance with specified requirements.
- B. Combined Requirements: If a particular door and frame unit is indicated to comply with more than one type of requirement, comply with the specified requirements for each type; for instance, an exterior door that is also indicated as being sound-rated must comply with the requirements specified for exterior doors and for sound-rated doors; where two requirements conflict, comply with the most stringent.

2.02 HOLLOW METAL DOORS

- A. Door Finish: Factory primed and field finished.
- B. Exterior Doors: Thermally insulated.
 - 1. Based on SDI Standards: ANSI/SDI A250.8 (SDI-100).

- a. Level 2 - Heavy-duty.
- b. Physical Performance Level B, 500,000 cycles; in accordance with ANSI/SDI A250.4.
- c. Model 1 - Full Flush & Model 3 - Stile & Rail .
- d. Door Face Metal Thickness: 18 gauge, 0.042 inch (1.0 mm), minimum.
- 2. Door Core Material: Manufacturers standard core material/construction and in compliance with requirements.
- 3. Door Thickness: 1-3/4 inches (44.5 mm), nominal.

2.03 HOLLOW METAL FRAMES

- A. Comply with standards and/or custom guidelines as indicated for corresponding door in accordance with applicable door frame requirements.
- B. Frame Finish: Factory primed and field finished.
- C. Exterior Door Frames: Knock-down type.
 - 1. Galvanizing: Components hot-dipped zinc-iron alloy-coated (galvannealed) in accordance with ASTM A653/A653M, with A40/ZF120 coating.
 - 2. Weatherstripping: Separate, see Section 087100.
- D. Interior Door Frames, Non-Fire Rated: Knock-down type.
 - 1. Frame Metal Thickness: 18 gauge, 0.042 inch (1.0 mm), minimum.
- E. Frames for Wood Doors: Comply with frame requirements in accordance with corresponding door.

2.04 FINISHES

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

2.05 ACCESSORIES

- A. Door Window Frames: Door window frames with glazing securely fastened within door opening.
 - 1. Size: As indicated on drawings.
 - 2. Frame Material: 18 gauge, 0.0478 inch (1.21 mm), galvanized steel.
- B. Glazing: As specified in Section 088000, factory installed.
- C. Removable Stops: Formed sheet steel, shape as indicated on drawings, mitered or butted corners; prepared for countersink style tamper proof screws.

PART 3 EXECUTION

3.01 EXAMINATION

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

3.02 PREPARATION

- A. Coat inside of frames to be installed in masonry or to be grouted, with bituminous coating, prior to installation.

3.03 INSTALLATION

- A. Install doors and frames in accordance with manufacturer's instructions and related requirements of specified door and frame standards or custom guidelines indicated.
- B. Coordinate frame anchor placement with wall construction.
- C. Install door hardware as specified in Section 087100.
 - 1. Comply with recommended practice for hardware placement of doors and frames in accordance with ANSI/SDI A250.6 or NAAMM HMMA 861.
- D. Comply with glazing installation requirements of Section 088000.

3.04 TOLERANCES

- A. Maximum Diagonal Distortion: 1/16 inch (1.6 mm) measured with straight edge, corner to corner.

3.05 ADJUSTING

- A. Adjust for smooth and balanced door movement.

END OF SECTION

SECTION 081433
STILE AND RAIL WOOD DOORS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Wood doors, stile and rail design; non-fire rated.
- B. Panels of wood and glass.

1.02 RELATED REQUIREMENTS

- A. Section 062000 - Finish Carpentry: painted wood trim apply to HM frame.
- B. Section 081113 - Hollow Metal Doors and Frames.
- C. Section 087100 - Door Hardware.
- D. Section 088000 - Glazing.
- E. Section 099123 - Interior Painting: Field finishing.

1.03 REFERENCE STANDARDS

- A. ASTM C1048 - Standard Specification for Heat-Strengthened and Fully Tempered Flat Glass; 2018.
- B. AWI/AWMAC/WI (AWS) - Architectural Woodwork Standards, 2nd Edition; 2014, with Errata (2016).
- C. AWMAC/WI (NAAWS) - North American Architectural Woodwork Standards; 2021, with Errata.

1.04 SUBMITTALS

- A. See Section 013000 - Administrative Requirements for submittal procedures.
- B. Product Data: Indicate stile and rail core materials and construction; veneer species, type and characteristics.
- C. Shop Drawings: Illustrate door opening criteria, elevations, sizes, types, swings, undercuts required, special beveling, special blocking for hardware, factory machining criteria, and cutouts for glazing.
- D. Manufacturer's qualification statement.
- E. Installer's qualification statement.
- F. Warranty, executed in Owner's name.

1.05 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section, with not less than three years of documented experience.
 - 1. Company with at least one project within past five years with value of woodwork within at least 20 percent of cost of woodwork for this project.
- B. Installer Qualifications: Company specializing in performing work of the type specified in this section, with not less than three years of documented experience.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. Package, deliver, and store doors in accordance with quality standard specified.
- B. Accept doors on site in manufacturer's packaging, and inspect for damage.
- C. Protect doors with resilient packaging sealed with heat shrunk plastic; do not store in damp or wet areas or areas where sunlight might bleach veneer; seal top and bottom edges with tinted sealer if stored more than one week, and break seal on site to permit ventilation.

1.07 WARRANTY

- A. See Section 017800 - Closeout Submittals for additional warranty requirements.
- B. Interior Doors: Provide manufacturer's warranty for the life of the installation.

- C. Include coverage for delamination of veneer, warping beyond specified installation tolerances, defective materials, and telegraphing core construction.

PART 2 PRODUCTS

2.01 DOORS

- A. Quality Standard: Custom Grade, Heavy Duty performance, in accordance with AWI/AWMAC/WI (AWS) or AWMAC/WI (NAAWS), unless otherwise indicated.
- B. Interior Doors: 1-3/8 inches (34.93 mm) thick unless otherwise indicated; solid lumber construction; mortise and tenon joints. Opaque finish as indicated on drawings.

2.02 DOOR AND PANEL FACINGS

- A. Materials for Opaque Finishes: Closed grain wood veneer.
- B. Adhesive: Type I - Waterproof.

2.03 DOOR CONSTRUCTION

- A. Vertical Exposed Edge of Stiles: Of same species as veneer facing.
- B. Fit door edge trim to edge of stiles after applying veneer facing.
- C. Bond edge banding to cores.
- D. Panels: Raised, solid wood.
- E. Factory machine doors for finish hardware in accordance with hardware requirements and dimensions. Do not machine for surface hardware.
- F. Factory fit doors for frame opening dimensions identified on shop drawings, with edge clearances in accordance with specified quality standard.
- G. Glazed Openings: Non-removable stops on non-secure side; sizes and configurations as indicated on drawings.

2.04 ACCESSORIES

- A. Hollow Metal Door Frames: See Section 081113.
- B. Glazed Openings:
 - 1. Heat-Strengthened and Fully Tempered Glass: ASTM C1048.
 - 2. Glazing: Sealed insulated glazing units with 1 inch (25.4 mm) overall thickness, and consisting of two 1/4 inch (6.4 mm) thick panes of glass.
 - 3. Tint: Clear.
- C. Panel or Glass Retention Molding: Wood of same species as door facing, flat bead stop, with butted corners; prepared for countersink style tamper proof screws.
- D. Door Hardware: See Section 087100.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify existing conditions before starting work.
- B. Verify that opening sizes and tolerances are acceptable.
- C. Do not install doors in frame openings that are not plumb or are out of tolerance for size or alignment.

3.02 INSTALLATION

- A. Install doors in accordance with manufacturer's instructions and specified quality standards.
- B. Machine cut for hardware.
- C. Coordinate installation of doors with installation of frames and hardware.
- D. Coordinate installation of glazing.

3.03 TOLERANCES

- A. Comply with specified quality standard for fit, clearance, and joinery tolerances.
- B. Maximum Width Distortion (Cup): 1/8 inch (3.2 mm) measured with straight edge or taut string, edge to edge, over an imaginary 36 by 84 inch (915 by 2130 mm) surface area.

3.04 ADJUSTING

- A. Adjust doors for smooth and balanced door movement.
- B. Adjust closers for full closure.

END OF SECTION

SECTION 085200 WOOD WINDOWS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Factory-fabricated wood windows.
- B. Glazing.
- C. Operating hardware.
- D. Wood trim for exterior finishing.

1.02 RELATED REQUIREMENTS

- A. Section 079200 - Joint Sealants: Sealing joints between frames and adjacent construction.
- B. Section 088000 - Glazing.
- C. Section 099123 - Interior Painting: Site finishing wood surfaces.

1.03 REFERENCE STANDARDS

- A. AAMA/WDMA/CSA 101/I.S.2/A440 - North American Fenestration Standard/Specification for Windows, Doors, and Skylights; 2022, with Errata (2023).
- B. AAMA 2604 - Voluntary Specification, Performance Requirements and Test Procedures for High Performance Organic Coatings on Aluminum Extrusions and Panels (with Coil Coating Appendix); 2022.
- C. ASHRAE Std 90.1 I-P - Energy Standard for Buildings Except Low-Rise Residential Buildings; Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.

1.04 SUBMITTALS

- A. See Section 013000 - Administrative Requirements for submittal procedures.
- B. Product Data: Show component dimensions, anchorage and fasteners, glass, and internal drainage details.
- C. Shop Drawings: Indicate opening dimensions, framed opening tolerances, affected related work, and installation requirements.
- D. Manufacturer's Certificate: Certify that products furnished meet or exceed specified requirements.
- E. Manufacturer's qualification statement.
- F. Installer's qualification statement.

1.05 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section with not less than three years of documented experience.
- B. Installer Qualifications: Company specializing in performing work of the type specified and with at least three years of documented experience.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. Protect factory finished surfaces with wrapping. Do not use adhesive papers or sprayed coatings that bond when exposed to sunlight or weather.

1.07 FIELD CONDITIONS

- A. Do not install sealants when ambient temperature is less than 40 degrees F (5 degrees C).
- B. Maintain this minimum temperature during and after installation of sealants.

1.08 WARRANTY

- A. See Section 017800 - Closeout Submittals for additional warranty requirements.

- B. Correct defective Work within a five year period after Date of Substantial Completion.
- C. Manufacturer Warranty: Provide 5-year manufacturer warranty for insulated glass units against seal failure, interpane dusting or misting, and replacement of same. Complete forms in Owner's name and register with manufacturer.
- D. Manufacturer Warranty: Provide 2-year manufacturer warranty against defects listed. Complete forms in Owner's name and register with manufacturer or warrantor.
 - 1. Degradation of color finish.
 - 2. Delamination or separation of finish cladding from window member.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Aluminum Clad Wood Windows:
 - 1. Pella Corporation; Pella Lifestyle Series: www.pellacommercial.com/#sle.

2.02 WOOD WINDOWS

- A. Wood Windows: Wood frame and sash, factory fabricated and assembled.
 - 1. Exterior Finish: Metal clad, painted.
 - 2. Interior Finish: Primed.
 - 3. Color: White.
 - 4. Configuration: As indicated on drawings.
 - 5. Window Product Types: H (VS) - Hung window (Vertical sliding window), in accordance with AAMA/WDMA/CSA 101/I.S.2/A440.
 - 6. Factory glazed; dry glazing method.
 - 7. Metal Cladding: Formed aluminum, factory finished, factory fit to profile of wood members.
 - 8. Operable Units: Double weatherstripped.

2.03 COMPONENTS

- A. Glazing: Double glazed, clear, Low-E coated, argon filled, with glass thicknesses as recommended by manufacturer for specified wind conditions.
- B. Glass and Glazing Materials: See Section 088000.
- C. Frames: Deep profile; flush solid wood glass stops of screw fastened type, sloped for positive drainage.
- D. Sills: Extruded aluminum, Sloped for positive drainage; fits under sash and projects at least 1/2 inch (12 mm) beyond exterior face of wall; single piece full width of opening.
- E. Muntins/Grilles: Grilles permanently installed between panes of insulating glass.
 - 1. Pattern: Varies; match each exst window pattern..
 - 2. Bar Width: 3/4 inch (19 mm).
 - 3. Color: Match interior and exterior of frame.
- F. Operable Sash Weatherstripping: Wool pile; permanently resilient, profiled to effect weather seal.
- G. Fasteners: Stainless steel.
- H. Sealant and Backing Materials: See Section 079200 of types as indicated.
 - 1. Perimeter Sealant: Appropriate for application.
- I. Wood for Casings and Trim: Clear pine, clear preservative treated, of type suitable for required finish.
- J. Flashing: Provide related flashings, with necessary anchors and attachment devices.
- K. Sealant for Setting Sills, Stools, Aprons, and Sill Flashing: Non-curing butyl type.

2.04 PERFORMANCE REQUIREMENTS

- A. Design Pressure (DP): In accordance with applicable codes.

- B. Fenestration Assembly Thermal transmittance (U-value): Comply with ASHRAE Std 90.1 I-P for building envelope requirements for applicable climate zone.

2.05 HARDWARE

- A. Double Hung Sash: Metal and nylon spiral friction slide cylinder, each sash, each jamb.
- B. Sash lock: Lever handle with cam lock.
- C. Operator: Lever action handle fitted to projecting sash arms with limit stops; baked enamel finish.
- D. Pulls: Manufacturer's standard type.

2.06 ALUMINUM FINISHES

- A. High Performance Organic Coatings: AAMA 2604, multiple coats, thermally cured fluoropolymer system.
- B. Color: White.
- C. Touch-Up Materials: As recommended by coating manufacturer for field application.

PART 3 EXECUTION

3.01 INSTALLATION

- A. Install windows in accordance with manufacturer's instructions.
- B. Attach window frame and shims to perimeter opening to accommodate construction tolerances and other irregularities.
- C. Align window plumb and level, free of warp or twist. Maintain dimensional tolerances and alignment with adjacent work.
- D. Install sills, stools, aprons, and casings.
- E. Set sill members and sill flashing in continuous bead of sealant.
- F. Provide thermal isolation where components penetrate or disrupt building insulation. Pack fibrous insulation in shim spaces at perimeter of assembly to maintain continuity of thermal barrier.

3.02 TOLERANCES

- A. Maximum Variation from Level or Plumb: 1/16 inch per 3 ft (1.6 mm per m) non-cumulative or 1/8 inch per 10 ft (3.2 mm per 3 m), whichever is less.

3.03 ADJUSTING

- A. Adjust hardware for smooth operation and secure weathertight closure.

3.04 CLEANING

- A. Remove protective material from factory finished surfaces.
- B. Wash surfaces by method recommended and acceptable to window manufacturer; rinse and wipe surfaces clean.

END OF SECTION

SECTION 087100 DOOR HARDWARE

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Hardware for wood and hollow metal doors.
- B. Electrically operated and controlled hardware.
- C. Thresholds.
- D. Weatherstripping and gasketing.

1.02 RELATED REQUIREMENTS

- A. Section 080671 - Door Hardware Schedule: Schedule of door hardware sets.
- B. Section 081113 - Hollow Metal Doors and Frames.
- C. Section 081433 - Stile and Rail Wood Doors.

1.03 REFERENCE STANDARDS

- A. ADA Standards - 2010 ADA Standards for Accessible Design; 2010.
- B. BHMA (CPD) - Certified Products Directory; Current Edition.
- C. BHMA A156.1 - Standard for Butts and Hinges; 2021.
- D. BHMA A156.2 - Bored and Preamsembled Locks and Latches; 2022.
- E. BHMA A156.3 - Exit Devices; 2025.
- F. BHMA A156.4 - Door Closers and Pivots; 2024.
- G. BHMA A156.6 - Standard for Architectural Door Trim; 2021.
- H. BHMA A156.7 - Template Hinge Dimensions; 2022.
- I. BHMA A156.8 - Door Controls - Overhead Stops and Holders; 2021.
- J. BHMA A156.14 - Sliding and Folding Door Hardware; 2024.
- K. BHMA A156.16 - Standard for Auxiliary Hardware; 2023.
- L. BHMA A156.17 - Self Closing Hinges & Pivots; 2025.
- M. BHMA A156.18 - Standard for Materials and Finishes; 2020.
- N. BHMA A156.21 - Thresholds; 2025.
- O. BHMA A156.22 - Standard for Gasketing; 2021.
- P. BHMA A156.25 - Electrified Locking Devices; 2023.
- Q. BHMA A156.31 - Electric Strikes and Frame Mounted Actuators; 2024.
- R. BHMA A156.115 - Hardware Preparation in Steel Doors and Frames; 2016.
- S. BHMA A156.115W - Hardware Preparation in Wood Doors with Wood or Steel Frames; 2006.
- T. DHI (LOCS) - Recommended Locations for Architectural Hardware for Standard Steel Doors and Frames; 2004.
- U. DHI WDHS.3 - Recommended Locations for Architectural Hardware for Flush Wood Doors; 1993; also in WDHS-1/WDHS-5 Series, 1996.
- V. ICC A117.1 - Accessible and Usable Buildings and Facilities; 2017.
- W. NFPA 70 - National Electrical Code; Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.
- X. UL (DIR) - Online Certifications Directory; Current Edition.

1.04 ADMINISTRATIVE REQUIREMENTS

- A. Coordinate the manufacture, fabrication, and installation of products that door hardware is installed on.
- B. Furnish templates for door and frame preparation to manufacturers and fabricators of products requiring internal reinforcement for door hardware.

1.05 SUBMITTALS

- A. See Section 013000 - Administrative Requirements for submittal procedures.
- B. Product Data: Manufacturer's catalog literature for each type of hardware, marked to clearly show products to be furnished for this project, and includes construction details, material descriptions, finishes, and dimensions and profiles of individual components.
- C. Shop Drawings - Door Hardware Schedule: Submit detailed listing that includes each item of hardware to be installed on each door. Use door numbering scheme as included in Contract Documents.
 - 1. Prepared by or under supervision of Architectural Hardware Consultant (AHC).
 - 2. Provide complete description for each door listed.
 - 3. Provide manufacturer name, product names, and catalog numbers; include functions, types, styles, sizes and finishes of each item.
 - 4. Include account of abbreviations and symbols used in schedule.
- D. Manufacturer's Installation Instructions: Indicate special procedures and perimeter conditions requiring special attention.
- E. Maintenance Data: Include data on operating hardware, lubrication requirements, and inspection procedures related to preventative maintenance.
 - 1. Submit manufacturer's parts lists and templates.
- F. Manufacturer's qualification statement.
- G. Installer's qualification statement.
- H. Specimen warranty.
- I. Project Record Documents: Record actual locations of concealed equipment, services, and conduit.
- J. Maintenance Materials and Tools: Furnish the following for Owner's use in maintenance of project.
 - 1. See Section 016000 - Product Requirements, for additional provisions.
 - 2. Tools: One set of each special wrench or tool applicable for each different or special hardware component, whether supplied by hardware component manufacturer or not.

1.06 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section with minimum three years of documented experience.
- B. Installer Qualifications: Company specializing in performing work of the type specified for commercial door hardware with at least three years of documented experience.

1.07 DELIVERY, STORAGE, AND HANDLING

- A. Package hardware items individually; label and identify each package with door opening code to match door hardware schedule.

1.08 WARRANTY

- A. See Section 017800 - Closeout Submittals for additional warranty requirements.
- B. Manufacturer's Warranty: Provide warranty against defects in material and workmanship for period indicated. Complete forms in Owner's name and register with manufacturer.
 - 1. Closers: Five years, minimum.
 - 2. Exit Devices: Three years, minimum.

3. Locksets and Cylinders: Three years, minimum.
4. Other Hardware: Two years, minimum.

PART 2 PRODUCTS

2.01 DESIGN AND PERFORMANCE CRITERIA

- A. Provide specified door hardware as required to make doors fully functional, compliant with applicable codes, and secure to extent indicated.
- B. Provide individual items of single type, of same model, and by same manufacturer.
- C. Provide door hardware products that comply with the following requirements:
 1. Applicable provisions of federal, state, and local codes.
 2. Accessibility: ADA Standards and ICC A117.1.
 3. Listed and certified compliant with specified standards by BHMA (CPD).
 4. Hardware Preparation for Steel Doors and Steel Frames: BHMA A156.115.
 5. Hardware Preparation for Wood Doors with Wood or Steel Frames: BHMA A156.115W.
 6. Products Requiring Electrical Connection: Listed and classified by UL (DIR) as suitable for the purpose specified.
- D. Electrically Operated and/or Controlled Hardware: Provide necessary power supplies, power transfer hinges, relays, and interfaces as required for proper operation; provide wiring between hardware and control components and to building power connection in compliance with NFPA 70.
- E. Lock Function: Provide lock and latch function numbers and descriptions of manufacturer's series. See Door Hardware Schedule.
- F. Fasteners:
 1. Provide fasteners of proper type, size, quantity, and finish that comply with commercially recognized standards for proposed applications.
 - a. Aluminum fasteners are not permitted.
 - b. Provide phillips flat-head screws with heads finished to match door surface hardware unless otherwise indicated.
 2. Provide stainless steel machine screws and lead expansion shields for concrete and masonry substrates.

2.02 HINGES

- A. Manufacturers:
 1. Ives, an Allegion brand: www.allegion.com/us/#sle.
- B. Hinges: Comply with BHMA A156.1, Grade 1.
 1. Self Closing Hinges: Comply with BHMA A156.17.
 2. Butt Hinges: Comply with BHMA A156.1 and BHMA A156.7 for templated hinges.
 - a. Provide hinge width required to clear surrounding trim.
 3. Provide hinges on every swinging door.
 4. Provide five-knuckle full mortise butt hinges unless otherwise indicated.
 5. Provide ball-bearing hinges at each door with closer.
 6. Provide non-removable pins on exterior outswinging doors.
 7. Provide power transfer hinges where electrified hardware is mounted in door leaf.
 8. Provide following quantity of butt hinges for each door:
 - a. Doors From 60 inches (1.5 m) High up to 90 inches (2.3 m) High: Three hinges.

2.03 PIVOTS

- A. Manufacturers:
 1. Ives, an Allegion brand: www.allegion.com/us/#sle.

2.04 TRACK AND HANGERS

- A. Manufacturers:
 1. Johnson Hardware: www.johnsonhardware.com/#sle.

- B. Sliding and Bifolding Door Hardware: Comply with BHMA A156.14.
 - 1. Provide track, hanger fasteners, guides, and pulls; size track and hangers in accordance with manufacturer's recommendations for weight of doors.
 - 2. Provide one pull for each pair of panels hinged together.

2.05 FLUSH BOLTS

- A. Manufacturers:
 - 1. Ives, an Allegion brand: www.allegion.com/us/#sle.
- B. Flush Bolts: Comply with BHMA A156.16, Grade 1.
 - 1. Flush Bolt Throw: 3/4 inch (19 mm), minimum.
 - 2. Provides extension bolts in leading edge of door, one bolt into floor, one bolt into top of frame.
 - a. Pairs of Swing Doors: At inactive leaves, provide flush bolts of type as required to comply with code.
 - 3. Provide dustproof floor strike for bolt into floor, except at metal thresholds.
 - 4. Self-Latching Flush Bolts: Automatically latch upon closing of door; manually retracted; located on inactive leaf of pair of doors.

2.06 EXIT DEVICES

- A. Manufacturers:
 - 1. Von Duprin, an Allegion brand: www.allegion.com/us/#sle.
- B. Exit Devices: Comply with BHMA A156.3, Grade 1.
 - 1. Lever design to match lockset trim.
 - 2. Provide cylinder with cylinder dogging or locking trim.
 - 3. Provide exit devices properly sized for door width and height.
 - 4. Provide strike as recommended by manufacturer for application indicated.
 - 5. Provide UL (DIR) listed exit device assemblies for fire-rated doors and panic device assemblies for non-fire-rated doors.

2.07 ELECTRIC STRIKES

- A. Manufacturers:
 - 1. HES; an Assa Abloy Group company: www.assaabloydss.com/#sle.
- B. Electric Strikes: Comply with BHMA A156.31, Grade 1.
 - 1. Provide UL (DIR) listed burglary-resistant electric strike; style to suit locks.
 - 2. Provide non-handed 24 VDC electric strike suitable for door frame material and scheduled lock configuration.
 - 3. Provide transformer and rectifier as necessary for complete installation.
 - 4. Provide with 2 Amp or less motor kit.

2.08 CYLINDRICAL LOCKS

- A. Manufacturers:
 - 1. Schlage, an Allegion brand: www.allegion.com/us/#sle.
 - 2. Substitutions: See Section 016000 - Product Requirements.
- B. Cylindrical Locks (Bored): Comply with BHMA A156.2, Grade 1, 4000 Series.
 - 1. Bored Hole: 2-1/8 inch (54 mm) diameter.
 - 2. Latchbolt Throw: 1/2 inch (12.7 mm), minimum.
 - 3. Backset: 2-3/4 inch (70 mm) unless otherwise indicated.
 - 4. Strikes: Provide manufacturer's standard strike for each latchset or lockset with strike box and curved lip extending to protect frame in compliance with indicated requirements.
 - a. Finish: To match lock or latch.
 - 5. Trim: Provide lever handle or pull trim on outside of each lock, unless otherwise indicated.

2.09 DOOR PULLS AND PUSH PLATES

- A. Manufacturers:

1. Ives, an Allegion brand: www.allegion.com/us/#sle.
- B. Door Pulls and Push Plates: Comply with BHMA A156.6.
 1. Pull Type: Straight, unless otherwise indicated.
 2. Push Plate Type: Flat, with square corners, unless otherwise indicated.
 - a. Edges: Beveled, unless otherwise indicated.
 3. Material: Aluminum, unless otherwise indicated.

2.10 COORDINATORS

- A. Coordinators: Provide on doors having closers and self-latching or automatic flush bolts to ensure that inactive door leaf closes before active door leaf.
 1. Type: Bar, unless otherwise indicated.
 2. Material: Aluminum, unless otherwise indicated.
 3. Ensure that coordination of other door hardware affected by placement of coordinators and carry bar is applied properly for completely operable installation.

2.11 CLOSERS

- A. Manufacturers; Surface Mounted:
 1. LCN, an Allegion brand: www.allegion.com/us/#sle.
- B. Manufacturers; Concealed - Overhead:
 1. LCN, an Allegion brand: www.allegion.com/us/#sle.
- C. Closers: Comply with BHMA A156.4, Grade 1.
 1. Type: Surface mounted to door.
 2. Provide door closer on each exterior door.
 3. At corridor entry doors, mount closer on room side of door.
 4. At outswinging exterior doors, mount closer on interior side of door.

2.12 OVERHEAD STOPS AND HOLDERS

- A. Manufacturers:
 1. Glynn-Johnson, an Allegion brand: www.allegion.com/us/#sle.
- B. Overhead Stops and Holders (Door Checks): Comply with BHMA A156.8, Grade 1.
 1. Provide stop for every swinging door, unless otherwise indicated.

2.13 KICK PLATES

- A. Manufacturers:
 1. Ives, an Allegion brand: www.allegion.com/us/#sle.
- B. Kick Plates: Provide along bottom edge of push side of every door with closer, except aluminum storefront and glass entry doors, unless otherwise indicated.
 1. Size: 10 inch (254 mm) high by 2 inch (51 mm) less door width (LDW) on push side of door.

2.14 WALL STOPS

- A. Manufacturers:
 1. Ives, an Allegion brand: www.allegion.com/us/#sle.
- B. Wall Stops: Comply with BHMA A156.16, Grade 1 and Resilient Material Retention Test as described in this standard.
 1. Provide wall stops to prevent damage to wall surface upon opening door.
 2. Type: Bumper, concave, wall stop.
 3. Material: Aluminum housing with rubber insert.

2.15 THRESHOLDS

- A. Manufacturers:
 1. Zero International, Inc: www.zerointernational.com/#sle.
- B. Thresholds: Comply with BHMA A156.21.

1. Provide threshold at interior doors for transition between two different floor types, and over building expansion joints, unless otherwise indicated.
2. Provide threshold at each exterior door, unless otherwise indicated.
3. Type: Flat surface.
4. Material: Aluminum.
5. Threshold Surface: Fluted horizontal grooves across full width.
6. Field cut threshold to profile of frame and width of door sill for tight fit.
7. Provide non-corroding fasteners at exterior locations.

2.16 WEATHERSTRIPPING AND GASKETING

- A. Manufacturers:
 1. Zero International, Inc: www.zerointernational.com/#sle.
- B. Weatherstripping and Gasketing: Comply with BHMA A156.22.
 1. Head and Jamb Type: Self-adhesive.
 2. Door Sweep Type: Encased in retainer.
 3. Material: Aluminum, with brush weatherstripping.
 4. Provide weatherstripping on each exterior door at head, jambs, and meeting stiles of door pairs, unless otherwise indicated.
 5. Provide door bottom sweep on each exterior door, unless otherwise indicated.

2.17 SILENCERS

- A. Manufacturers:
 1. Ives, an Allegion brand: www.allegion.com/us/#sle.
- B. Silencers: Provide at equal locations on door frame to mute sound of door's impact upon closing.
 1. Single Door: Provide three on strike jamb of frame.
 2. Pair of Doors: Provide two on head of frame, one for each door at latch side.
 3. Material: Rubber, gray color.

2.18 POWER SUPPLY

- A. Manufacturers:
 1. Securitron; an Assa Abloy Group company: www.assaabloydss.com/#sle.
- B. Power Supply: Hard wired, with multiple zones providing eight (8) breakers for each output panel with individual control switches and LED's; UL (DIR) Class 2 listed.
 1. Power: 24VDC, 2 Amp; with 120 VAC power supply.
 2. Operating Temperature: 32 to 110 degrees F (0 to 43 degrees C).
 3. Provide with emergency release terminals that release devices upon activation of fire alarm system.

2.19 FINISHES

- A. Finishes: Identified in Section 08 0671 - Door Hardware Schedule.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that doors and frames are ready to receive this work; labeled, fire-rated doors and frames are properly installed, and dimensions are as indicated on shop drawings.
- B. Verify that electric power is available to power operated devices and of correct characteristics.

3.02 INSTALLATION

- A. Install hardware in accordance with manufacturer's instructions and applicable codes.
- B. Use templates provided by hardware item manufacturer.
- C. Do not install surface mounted items until application of finishes to substrate are fully completed.

- D. Door Hardware Mounting Heights: Distance from finished floor to center line of hardware item. As indicated in following list; unless noted otherwise in Door Hardware Schedule or on drawings.
 - 1. For Steel Doors and Frames: Install in compliance with DHI (LOCS) recommendations.
 - 2. For Wood Doors: Install in compliance with DHI WDHS.3 recommendations.
 - 3. Mounting heights in compliance with ADA Standards:
 - a. Locksets: 40-5/16 inch (1024 mm).
 - b. Push Plates/Pull Bars: 42 inch (1067 mm).
 - c. Exit Devices: 40-5/16 inch (1024 mm).
- E. Set exterior door thresholds with full-width bead of elastomeric sealant at each point of contact with floor providing a continuous weather seal; anchor thresholds with stainless steel countersunk screws.

3.03 FIELD QUALITY CONTROL

- A. Perform field inspection and testing under provisions of Section 014000 - Quality Requirements.

3.04 ADJUSTING

- A. Adjust work under provisions of Section 017000 - Execution and Closeout Requirements.
- B. Adjust hardware for smooth operation.
- C. Adjust gasketing for complete, continuous seal; replace if unable to make complete seal.

3.05 CLEANING

- A. Clean finished hardware in accordance with manufacturer's written instructions after final adjustments have been made.
- B. Clean adjacent surfaces soiled by hardware installation.
- C. Replace items that cannot be cleaned to manufacturer's level of finish quality at no additional cost.

3.06 PROTECTION

- A. Protect finished Work under provisions of Section 017000 - Execution and Closeout Requirements.
- B. Do not permit adjacent work to damage hardware or finish.

END OF SECTION

SECTION 088000 GLAZING

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Insulating glass units.
- B. Glazing units.
- C. Glazing compounds.

1.02 RELATED REQUIREMENTS

- A. Section 081113 - Hollow Metal Doors and Frames: Glazed lites in doors and borrowed lites.
- B. Section 081433 - Stile and Rail Wood Doors: Glazed lites in doors.

1.03 REFERENCE STANDARDS

- A. 16 CFR 1201 - Safety Standard for Architectural Glazing Materials; Current Edition.
- B. ANSI Z97.1 - American National Standard for Safety Glazing Materials Used in Buildings - Safety Performance Specifications and Methods of Test; 2015 (Reaffirmed 2020).
- C. ASCE 7 - Minimum Design Loads and Associated Criteria for Buildings and Other Structures; Most Recent Edition Cited by Referring Code or Reference Standard.
- D. ASTM C864 - Standard Specification for Dense Elastomeric Compression Seal Gaskets, Setting Blocks, and Spacers; 2005 (Reapproved 2019).
- E. ASTM C1048 - Standard Specification for Heat-Strengthened and Fully Tempered Flat Glass; 2018.
- F. ASTM C1193 - Standard Guide for Use of Joint Sealants; 2025.
- G. ASTM C1376 - Standard Specification for Pyrolytic and Vacuum Deposition Coatings on Flat Glass; 2021a.
- H. ASTM E1300 - Standard Practice for Determining Load Resistance of Glass in Buildings; 2024.
- I. ASTM E2190 - Standard Specification for Insulating Glass Unit Performance and Evaluation; 2019.
- J. GANA (SM) - GANA Sealant Manual; 2008.
- K. ICC (IBC) - International Building Code; Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.
- L. NFRC 100 - Procedure for Determining Fenestration Product U-factors; 2023.
- M. NFRC 200 - Procedure for Determining Fenestration Product Solar Heat Gain Coefficient and Visible Transmittance at Normal Incidence; 2023.
- N. NFRC 300 - Test Method for Determining the Solar Optical Properties of Glazing Materials and Systems; 2023.

1.04 SUBMITTALS

- A. See Section 013000 - Administrative Requirements for submittal procedures.
- B. Product Data on Insulating Glass Unit and Glazing Unit Glazing Types: Provide structural, physical and environmental characteristics, size limitations, special handling and installation requirements.
- C. Product Data on Glazing Compounds and Accessories: Provide chemical, functional, and environmental characteristics, limitations, special application requirements, and identify available colors.
- D. Certificate: Certify that products of this section meet or exceed specified requirements.
- E. Manufacturer's qualification statement.

- F. Warranty Documentation: Submit manufacturer warranty and ensure that forms have been completed in Owner's name and registered with manufacturer.
- G. Maintenance Materials: Furnish the following for Owner's use in maintenance of project.
 - 1. See Section 016000 - Product Requirements, for additional provisions.
 - 2. Extra Insulating Glass Units: One of each glass size and each glass type.

1.05 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum three years of documented experience.
- B. Installer Qualifications: Company specializing in performing work of the type specified and with at least three years documented experience.

1.06 FIELD CONDITIONS

- A. Do not install glazing when ambient temperature is less than 40 degrees F (4 degrees C).
- B. Maintain minimum ambient temperature before, during and 24 hours after installation of glazing compounds.

1.07 WARRANTY

- A. See Section 017800 - Closeout Submittals for additional warranty requirements.
- B. Insulating Glass Units: Provide a five (5) year manufacturer warranty to include coverage for seal failure, interpane dusting or misting, including providing products to replace failed units.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Float Glass Manufacturers:
 - 1. Cardinal Glass Industries: www.cardinalcorp.com/#sle.
 - 2. Pilkington North America Inc: www.pilkington.com/na/#sle.
 - 3. Vitro Architectural Glass (formerly PPG Glass): www.vitroglazings.com/#sle.

2.02 PERFORMANCE REQUIREMENTS - EXTERIOR GLAZING ASSEMBLIES

- A. Provide type and thickness of exterior glazing assemblies to support assembly dead loads, and to withstand live loads caused by positive and negative wind pressure acting normal to plane of glass.
 - 1. Comply with ASTM E1300 for design load resistance of glass type, thickness, dimensions, and maximum lateral deflection of supported glass.
 - 2. Provide glass edge support system sufficiently stiff to limit the lateral deflection of supported glass edges to less than 1/175 of their lengths under specified design load.
 - 3. Glass thicknesses listed are minimum.
- B. Thermal and Optical Performance: Provide exterior glazing products with performance properties as indicated. Performance properties are in accordance with manufacturer's published data as determined with the following procedures and/or test methods:
 - 1. Center of Glass U-Value: Comply with NFRC 100 using Lawrence Berkeley National Laboratory (LBNL) WINDOW 7 computer program.
 - 2. Center of Glass Solar Heat Gain Coefficient (SHGC): Comply with NFRC 200 using Lawrence Berkeley National Laboratory (LBNL) WINDOW 7 computer program.
 - 3. Solar Optical Properties: Comply with NFRC 300 test method.

2.03 GLASS MATERIALS

- A. Float Glass: Provide float glass based glazing unless otherwise indicated.
 - 1. Kind FT - Fully Tempered Type: Complies with ASTM C1048.
 - 2. Fully Tempered Safety Glass: Complies with ANSI Z97.1 or 16 CFR 1201 criteria for safety glazing used in hazardous locations.
 - 3. Thicknesses: As indicated; provide greater thickness as required for exterior glazing wind load design.

2.04 INSULATING GLASS UNITS

- A. Manufacturers:
 - 1. Glass: Any of the manufacturers specified for float glass.
- B. Fabricator: Certified by glass manufacturer for type of glass, coating, and treatment involved and capable of providing specified warranty.
- C. Insulating Glass Units: Types as indicated.
 - 1. Durability: Certified by an independent testing agency to comply with ASTM E2190.
 - 2. Coated Glass: Comply with requirements of ASTM C1376 for pyrolytic (hard-coat) or magnetic sputter vapor deposition (soft-coat) type coatings on flat glass; coated vision glass, Kind CV; coated overhead glass, Kind CO; or coated spandrel glass, Kind CS.
 - 3. Spacer Color: White.
 - 4. Edge Seal:
 - a. Dual-Sealed System: Provide polyisobutylene sealant as primary seal applied between spacer and glass panes, and silicone, polysulfide, or polyurethane sealant as secondary seal applied around perimeter.
 - b. Color: Black.
 - 5. Purge interpane space with dry air, hermetically sealed.
- D. Type IG-1 - Insulating Glass Units: Vision glass, double glazed. Safety glazing.
 - 1. Applications: Exterior glazing unless otherwise indicated.
 - 2. Space between lites filled with air.
 - 3. Outboard Lite: Fully tempered safety glass, 1/4 inch (6.4 mm) thick, minimum.
 - a. Tint: Clear.
 - b. Coating: Low-E (passive type), on #2 surface.
 - 4. Inboard Lite: Fully tempered safety glass, 1/4 inch (6.4 mm) thick, minimum.
 - a. Tint: Clear.
 - 5. Total Thickness: 1 inch (25.4 mm).
 - 6. Thermal Transmittance (U-Value), Winter - Center of Glass: 0.29, nominal.
 - 7. Visible Light Transmittance (VLT): 65 percent, nominal.
 - 8. Solar Heat Gain Coefficient (SHGC): 0.27, nominal.
 - 9. Visible Light Reflectance, Outside: 14 percent, nominal.
 - 10. Glazing Method: Dry glazing method, gasket glazing.

2.05 BASIS OF DESIGN - INSULATING GLASS UNITS

- A. Basis of Design - Insulating Glass Units: Vision glazing, with low-e coating.
 - 1. Applications: Exterior insulating glass glazing unless otherwise indicated.
 - 2. Space between lites filled with air.
 - 3. Total Thickness: 1 inch (25.4 mm).
 - 4. Thermal Transmittance (U-Value), Winter - Center of Glass: 0.29, nominal.
 - 5. Visible Light Transmittance (VLT): 65 percent, nominal.
 - 6. Shading Coefficient: 0.32, nominal.
 - 7. Solar Heat Gain Coefficient (SHGC): 0.27, nominal.
 - 8. Visible Light Reflectance, Outside: 14 percent, nominal.
 - 9. Glazing Method: Dry glazing method, gasket glazing.
 - 10. Coated Glass: Comply with requirements of ASTM C1376 for pyrolytic (hard-coat) or magnetic sputter vapor deposition (soft-coat) type coatings on flat glass; coated vision glass, Kind CV; coated overhead glass, Kind CO; or coated spandrel glass, Kind CS.
 - 11. Spacer Color: White.
 - 12. Edge Seal:
 - a. Dual-Sealed System: Provide polyisobutylene sealant as primary seal applied between spacer and glass panes, and silicone, polysulfide, or polyurethane sealant as secondary seal applied around perimeter.
 - 13. Color: Black.

14. Purge interpane space with dry air, hermetically sealed.
15. Basis of Design - Vitro Architectural Glass (formerly PPG Glass):
www.vitroglazings.com/#sle.
16. Outboard Lite: Fully tempered safety glass, 1/4 inch (6.4 mm) thick, minimum.
 - a. Low-E Coating: Vitro Architectural Glass (formerly PPG Glass) Solarban 70 glass on #2 surface.
 - b. Glass: Clear.
17. Inboard Lite: Fully tempered safety glass, 1/4 inch (6.4 mm) thick.
 - a. Glass: Clear.
18. Other Manufacturers: Provide either the product identified as "Basis of Design" or an equivalent product of another acceptable manufacturer.

2.06 GLAZING UNITS

- A. Type G-1 - Monolithic Exterior Vision Glazing:
 1. Applications: Interior glazing unless noted otherwise.
 2. Glass Type: Fully tempered safety glass.
 3. Tint: Clear.
 4. Thickness: 1/4 inch (6.4 mm), nominal.

2.07 ACCESSORIES

- A. Setting Blocks: Silicone, with 80 to 90 Shore A durometer hardness; ASTM C864 Option II. Length of 0.1 inch for each square foot (25 mm for each square meter) of glazing or minimum 4 inch (100 mm) by width of glazing rabbet space minus 1/16 inch (1.5 mm) by height to suit glazing method and pane weight and area.
- B. Glazing Splines: Resilient silicone extruded shape to suit glazing channel retaining slot; ASTM C864 Option II; color black.

PART 3 EXECUTION

3.01 VERIFICATION OF CONDITIONS

- A. Verify that openings for glazing are correctly sized and within tolerances, including those for size, squareness, and offsets at corners.
- B. Verify that surfaces of glazing channels or recesses are clean, free of obstructions that may impede moisture movement, weeps are clear, and support framing is ready to receive glazing system.

3.02 PREPARATION

- A. Clean contact surfaces with appropriate solvent and wipe dry within maximum of 24 hours before glazing. Remove coatings that are not tightly bonded to substrates.
- B. Seal porous glazing channels or recesses with substrate compatible primer or sealer.
- C. Prime surfaces scheduled to receive sealant where required for proper sealant adhesion.

3.03 INSTALLATION, GENERAL

- A. Install glazing in compliance with written instructions of glass, gaskets, and other glazing material manufacturers, unless more stringent requirements are indicated, including those in glazing referenced standards.
- B. Install glazing sealants in accordance with ASTM C1193, GANA (SM), and manufacturer's instructions.
- C. Set glass lites of system with uniform pattern, draw, bow, and similar characteristics.
- D. Set glass lites in proper orientation so that coatings face exterior or interior as indicated.
- E. Prevent glass from contact with any contaminating substances that may be the result of construction operations such as, and not limited to the following; weld splatter, fire-safing, plastering, mortar droppings, and paint.

3.04 INSTALLATION - DRY GLAZING METHOD (GASKET GLAZING)

- A. Application - Exterior and/or Interior Glazed: Set glazing infills from either the exterior or the interior of the building.
- B. Place setting blocks at 1/4 points with edge block no more than 6 inch (152 mm) from corners.
- C. Rest glazing on setting blocks and push against fixed stop with sufficient pressure on gasket to attain full contact.
- D. Install removable stops without displacing glazing gasket; exert pressure for full continuous contact.

3.05 CLEANING

- A. Remove excess glazing materials from finish surfaces immediately after application using solvents or cleaners recommended by manufacturers.
- B. Remove nonpermanent labels immediately after glazing installation is complete.
- C. Clean glass and adjacent surfaces after sealants are fully cured.
- D. Clean glass on both exposed surfaces not more than 4 days prior to Date of Substantial Completion in accordance with glass manufacturer's written recommendations.

3.06 PROTECTION

- A. After installation, mark pane with an 'X' by using removable plastic tape or paste; do not mark heat absorbing or reflective glass units.
- B. Remove and replace glass that is damaged during construction period prior to Date of Substantial Completion.

END OF SECTION

**SECTION 092116
GYPSUM BOARD ASSEMBLIES**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Performance criteria for gypsum board assemblies.
- B. Metal stud wall framing.
- C. Metal channel ceiling framing.
- D. Acoustic insulation.
- E. Cementitious backing board.
- F. Gypsum wallboard.
- G. Joint treatment and accessories.

1.02 RELATED REQUIREMENTS

- A. Section 079200 - Joint Sealants: Sealing acoustical gaps in construction other than gypsum board or plaster work.

1.03 REFERENCE STANDARDS

- A. AISI S100 - North American Specification for the Design of Cold-Formed Steel Structural Members; 2016, with Supplement (2020).
- B. AISI S220 - North American Standard for Cold-Formed Steel Nonstructural Framing; 2020.
- C. AISI S240 - North American Standard for Cold-Formed Steel Structural Framing; 2015, with Errata (2020).
- D. ANSI A108.11 - American National Standard Specifications for Interior Installation of Cementitious Backer Units; 2023.
- E. ANSI A118.9 - American National Standard Specifications for Test Methods and Specifications for Cementitious Backer Units; 2023.
- F. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process; 2023.
- G. ASTM A1003/A1003M - Standard Specification for Steel Sheet, Carbon, Metallic- and Nonmetallic-Coated for Cold-Formed Framing Members; 2015.
- H. ASTM C1007 - Standard Specification for Installation of Load Bearing (Transverse and Axial) Steel Studs and Related Accessories; 2020.
- I. ASTM C475/C475M - Standard Specification for Joint Compound and Joint Tape for Finishing Gypsum Board; 2017 (Reapproved 2022).
- J. ASTM C514 - Standard Specification for Nails for the Application of Gypsum Board; 2004 (Reapproved 2020).
- K. ASTM C557 - Standard Specification for Adhesives for Fastening Gypsum Wallboard to Wood Framing; 2003 (Reapproved 2017).
- L. ASTM C665 - Standard Specification for Mineral-Fiber Blanket Thermal Insulation for Light Frame Construction and Manufactured Housing; 2023.
- M. ASTM C754 - Standard Specification for Installation of Steel Framing Members to Receive Screw-Attached Gypsum Panel Products; 2020.
- N. ASTM C840 - Standard Specification for Application and Finishing of Gypsum Board; 2023.
- O. ASTM C954 - Standard Specification for Steel Drill Screws for the Application of Gypsum Panel Products or Metal Plaster Bases to Steel Studs from 0.033 in. (0.84 mm) to 0.112 in. (2.84 mm) in Thickness; 2022.

- P. ASTM C1002 - Standard Specification for Steel Self-Piercing Tapping Screws for Application of Gypsum Panel Products or Metal Plaster Bases to Wood Studs or Steel Studs; 2022.
- Q. ASTM C1047 - Standard Specification for Accessories for Gypsum Wallboard and Gypsum Veneer Base; 2019.
- R. ASTM C1325 - Standard Specification for Fiber-Mat Reinforced Cementitious Backer Units; 2022, with Editorial Revision (2023).
- S. ASTM C1396/C1396M - Standard Specification for Gypsum Board; 2017.
- T. ASTM D3273 - Standard Test Method for Resistance to Growth of Mold on the Surface of Interior Coatings in an Environmental Chamber; 2021.
- U. GA-216 - Application and Finishing of Gypsum Panel Products; 2024.
- V. GA-226 - Application of Gypsum Board to Form Curved Surfaces; 2025.

1.04 SUBMITTALS

- A. See Section 013000 - Administrative Requirements for submittal procedures.
- B. Product Data:
 - 1. Provide data on metal framing, gypsum board, accessories, and joint finishing system.
 - 2. Provide manufacturer's data on partition head to structure connectors, showing compliance with requirements.
- C. Installer's Qualification Statement.

1.05 QUALITY ASSURANCE

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

1.06 DELIVERY, STORAGE, AND HANDLING

- A. Store gypsum products and accessories indoors and keep above freezing. Elevate boards above floor, on nonwicking supports, in accordance with manufacturer's recommendations.
- B. Store metal products to prevent corrosion.

PART 2 PRODUCTS

2.01 GYPSUM BOARD ASSEMBLIES

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

2.02 METAL FRAMING MATERIALS

- A. Steel Sheet: ASTM A1003/A1003M, subject to the ductility limitations indicated in AISI S220 or equivalent.
 - 1. Structural Grade: ST33H.
 - 2. Corrosion Protection Coating Designation: G40, or equivalent in accordance with AISI S220.
- B. Manufacturers - Metal Framing, Connectors, and Accessories:
 - 1. CEMCO: www.cemcosteel.com/#sle.
 - 2. ClarkDietrich: www.clarkdietrich.com/#sle.
 - 3. MarinoWARE: www.marinoware.com/#sle.
- C. Nonstructural Framing System Components: AISI S220; galvanized sheet steel, of size and properties necessary to comply with ASTM C754 for the spacing indicated, with maximum deflection of wall framing of L/120 at 5 psf (L/120 at 240 Pa).
 - 1. Studs: C-shaped with flat faces.
 - 2. Runners: U shaped, sized to match studs.
 - 3. Ceiling Channels: C-shaped.
 - 4. Flexible Track: Flexible framing consisting of adjustable leg straps and pivoting, hinged track brackets designed to provide curved framing assemblies of varying radii.

- a. Dimensions: 8 inches (25.4 mm) deep by 1-3/16 inches (30.2 mm) high in lengths and configurations indicated.
 - b. Products:
 - 1) ClarkDietrich; 360TRAK: www.clarkdietrich.com/#sle.
- D. Partition Head to Structure Connections: Provide mechanical anchorage devices that accommodate deflection and prevent rotation of studs while maintaining structural performance of partition.
 - 1. Structural Performance: Maintain lateral load resistance and vertical movement capacity required by applicable code, when evaluated in accordance with AISI S100.
 - 2. Material: ASTM A653/A653M steel sheet, SS Grade 50/340, with G60/Z180 hot-dipped galvanized coating.
- E. Non-structural Framing Accessories:
 - 1. Ceiling Hangers: Type and size as specified in ASTM C754 for spacing required.
 - 2. Framing Connectors: ASTM A653/A653M G90 galvanized steel clips; secures cold rolled channel to wall studs for lateral bracing.
- F. Grid Suspension Systems: Steel grid system of main tees and support bars connected to structure using hanging wire.

2.03 BOARD MATERIALS

- A. Manufacturers - Gypsum-Based Board:
 - 1. CertainTeed Corporation: www.certainteed.com/#sle.
 - 2. USG Corporation: www.usg.com/#sle.
 - 3. National Gypsum Company: www.nationalgypsum.com.
- B. Gypsum Wallboard: Paper-faced gypsum panels as defined in ASTM C1396/C1396M; sizes to minimize joints in place; ends square cut.
 - 1. Application: Use for vertical surfaces and ceilings, unless otherwise indicated.
 - 2. Mold Resistance: Score of 10, when tested in accordance with ASTM D3273.
 - a. Mold resistant board is required toilet rooms & kitchens.
 - 3. Thickness:
 - a. Vertical Surfaces: 5/8 inch (16 mm).
 - b. Ceilings: 1/2 inch (13 mm).
 - c. Curved Surfaces: 1/4 inch (6 mm).
- C. Backing Board For Wet Areas: One of the following products:
 - 1. Application: Surfaces behind tile in wet areas, including toilet fixtures.
 - 2. Application: Horizontal surfaces behind tile in wet and non-wet areas including countertops and vanities.
 - 3. Mold Resistance: Score of 10, when tested in accordance with ASTM D3273.
 - 4. ANSI Cement-Based Board: Non-gypsum-based; aggregated Portland cement panels with glass fiber mesh embedded in front and back surfaces complying with ANSI A118.9 or ASTM C1325.
 - a. Thickness: 5/8 inch (16 mm).
- D. Ceiling Board: Special sag resistant gypsum ceiling board as defined in ASTM C1396/C1396M; sizes to minimize joints in place; ends square cut.
 - 1. Application: Ceilings, unless otherwise indicated.
 - 2. Thickness: 1/2 inch (13 mm).
 - 3. Edges: Tapered.

2.04 GYPSUM BOARD ACCESSORIES

- A. Acoustic Insulation: ASTM C665; preformed mineral-fiber, friction fit type, unfaced; thickness 2 inches (50.8 mm).
- B. Finishing Accessories: ASTM C1047, extruded aluminum alloy (6063 T5) or galvanized steel sheet ASTM A924/A924M G90, unless noted otherwise.

1. Types: As detailed or required for finished appearance.
 2. Special Shapes: In addition to conventional corner bead and control joints, provide U-bead at exposed panel edges.
- C. Joint Materials: ASTM C475/C475M and as recommended by gypsum board manufacturer for project conditions.
1. Paper Tape: 2 inch (50 mm) wide, creased paper tape for joints and corners _____.
 2. Joint Compound: Drying type, vinyl-based, ready-mixed.
 3. Joint Compound: Setting type, field-mixed.
- D. Screws for Fastening of Gypsum Panel Products to Cold-Formed Steel Studs Less than 0.033 inches (0.84 mm) in Thickness and Wood Members: ASTM C1002; self-piercing tapping screws, corrosion-resistant.
- E. Screws for Fastening of Gypsum Panel Products to Steel Members from 0.033 to 0.112 inch (0.84 to 2.84 mm) in Thickness: ASTM C954; steel drill screws, corrosion-resistant.
- F. Nails for Attachment to Wood Members: ASTM C514.
- G. Anchorage to Substrate: Tie wire, nails, screws, and other metal supports, of type and size to suit application; to rigidly secure materials in place.
- H. Adhesive for Attachment to Wood, ASTM C557 and Metal:

PART 3 EXECUTION

3.01 EXAMINATION

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

3.02 FRAMING INSTALLATION

- A. Metal Framing: Install in accordance with ASTM C1007/AISI S220 and manufacturer's instructions.
- B. Suspended Ceilings and Soffits: Space framing and furring members at 16 inches on center (at 400 mm on center).
1. Level ceiling system to a tolerance of 1/600.
 2. Laterally brace entire suspension system.
- C. Studs: Space studs at 16 inches on center (at 406 mm on center).
1. Extend partition framing to structure where indicated and to ceiling in other locations.
 2. Partitions Terminating at Ceiling: Attach ceiling runner securely to ceiling track in accordance with manufacturer's instructions.
 3. Partitions Terminating at Structure: Attach top runner to structure, maintain clearance between top of studs and structure, and connect studs to track using specified mechanical devices in accordance with manufacturer's instructions; verify free movement of top of stud connections; do not leave studs unattached to track.
- D. Openings: Reinforce openings as required for weight of doors or operable panels, using not less than double studs at jambs.

3.03 ACOUSTIC ACCESSORIES INSTALLATION

- A. Acoustic Insulation: Place tightly within spaces, around cut openings, behind and around electrical and mechanical items within partitions, and tight to items passing through partitions.
- B. Acoustic Sealant: Install in accordance with manufacturer's instructions.
1. Place one bead continuously on substrate before installation of perimeter framing members.
 2. Place continuous bead at perimeter of each layer of gypsum board.
 3. Seal around all penetrations by conduit, pipe, ducts, and rough-in boxes, except where firestopping is provided.

3.04 BOARD INSTALLATION

- A. Comply with ASTM C840, GA-216, and manufacturer's instructions. Install to minimize butt end joints, especially in highly visible locations.
- B. Single-Layer Nonrated: Install gypsum board in most economical direction, with ends and edges occurring over firm bearing.
- C. Exposed Gypsum Board in Interior Wet Areas: Seal joints, cut edges, and holes with water-resistant sealant.
- D. Cementitious Backing Board: Install over steel framing members where indicated, in accordance with ANSI A108.11 and manufacturer's instructions.
- E. Installation on Metal Framing: Use screws for attachment of gypsum board.
- F. Installation on Wood Framing: For nonrated assemblies, install as follows:
 - 1. Single-Layer Applications: Screw attachment.
- G. Curved Surfaces: Apply gypsum board to curved substrates in accordance with GA-226.

3.05 INSTALLATION OF TRIM AND ACCESSORIES

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

3.06 JOINT TREATMENT

- A. Paper Faced Gypsum Board: Use paper joint tape, embed with drying type joint compound and finish with drying type joint compound.
- B. Finish gypsum board in accordance with levels defined in ASTM C840, as follows:
 - 1. Level 4: Walls and ceilings to receive paint finish or wall coverings, unless otherwise indicated.
 - 2. Level 2: In utility areas, behind cabinetry, and on backing board to receive tile finish.
 - 3. Level 1: Wall areas above finished ceilings, whether or not accessible in the completed construction.
- C. Tape, fill, and sand exposed joints, edges, and corners to produce smooth surface ready to receive finishes.
 - 1. Feather coats of joint compound so that camber is maximum 1/32 inch (0.8 mm).

3.07 TOLERANCES

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

3.08 PROTECTION

- A. Protect installed gypsum board assemblies from subsequent construction operations.

END OF SECTION

SECTION 093000 TILING

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Tile for floor applications.
- B. Tile for wall applications.
- C. Cementitious backer board as tile substrate.
- D. Ceramic trim.
- E. Non-ceramic trim.

1.02 RELATED REQUIREMENTS

- A. Section 079200 - Joint Sealants: Sealing joints between tile work and adjacent construction and fixtures.
- B. Section 092116 - Gypsum Board Assemblies: Tile backer board.

1.03 REFERENCE STANDARDS

- A. ANSI A108/A118/A136 - American National Standard Specifications for the Installation of Ceramic Tile (Compendium); 2024.
- B. ANSI A108.11 - American National Standard Specifications for Interior Installation of Cementitious Backer Units; 2023.
- C. ANSI A118.6 - American National Standard Specifications for Standard Cement Grouts for Tile Installation; 2019.
- D. ANSI A118.9 - American National Standard Specifications for Test Methods and Specifications for Cementitious Backer Units; 2023.
- E. ANSI A118.10 - American National Standard Specifications for Load Bearing, Bonded, Waterproof Membranes for Thin-Set Ceramic Tile and Dimension Stone Installation; 2023.
- F. ANSI A118.15 - American National Standard Specifications for Improved Modified Dry-Set Cement Mortar; 2023.
- G. ANSI A137.1 - American National Standard Specifications for Ceramic Tile; 2022.
- H. ANSI A326.3 - American National Standard Test Method for Measuring Dynamic Coefficient of Friction of Hard Surface Flooring Materials; 2021.
- I. TCNA (HB) - Handbook for Ceramic, Glass, and Stone Tile Installation; 2025.
- J. TCNA (HB-GP) - Handbook for Gauged Porcelain Tiles and Gauged Porcelain Tile Panels/Slabs Installation; 2023.

1.04 SUBMITTALS

- A. See Section 013000 - Administrative Requirements for submittal procedures.
- B. Product Data: Provide manufacturers' data sheets on tile, mortar, grout, and accessories. Include instructions for using grouts and adhesives.
- C. Shop Drawings: Indicate tile layout, patterns, color arrangement, perimeter conditions, junctions with dissimilar materials, control and expansion joints, thresholds, ceramic accessories, and setting details.
- D. Samples: Mount tile and apply grout on two plywood panels, minimum 18 by 18 inches (457 by 457 mm) in size illustrating pattern, color variations, and grout joint size variations.
- E. Installer's qualification statement.
- F. Maintenance Data: Include recommended cleaning methods, cleaning materials, and stain removal methods.
- G. Maintenance Materials: Furnish the following for Owner's use in maintenance of project.

1. See Section 016000 - Product Requirements, for additional provisions.
2. Extra Tile: 5 percent of each size, color, and surface finish combination.

1.05 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing the types of products specified in this section, with minimum five years of documented experience.
- B. Installer Qualifications:
 1. Company specializing in performing tile installation, with minimum of five years of documented experience.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. Protect adhesives from freezing or overheating in accordance with manufacturer's instructions.

1.07 FIELD CONDITIONS

- A. Do not install solvent-based products in an unventilated environment.
- B. Maintain ambient and substrate temperature above 50 degrees F (10 degrees C) and below 100 degrees F (38 degrees C) during installation and curing of setting materials.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Tile:
 1. Architessa: www.architessa.com/#sle.
 2. Dal-Tile Corporation: www.daltile.com/#sle.
 3. As indicated in FINISH LEGEND.
 4. Source Limitations: Furnish products produced by single manufacturer and obtained from single supplier.
- B. Setting Materials:
 1. Mapei Corporation: www.mapei.com/#sle.
 2. Source Limitations: Furnish products produced by single manufacturer and obtained from single supplier.
- C. Grout:
 1. Mapei Corporation: www.mapei.com/#sle.
 2. Source Limitations: Furnish products produced by single manufacturer and obtained from single supplier.

2.02 PERFORMANCE REQUIREMENTS

- A. Floor Tile: Provide tile for flooring applications with minimum wet Dynamic Coefficient of Friction (DCOF) of 0.42 when tested in accordance with ANSI A326.3.

2.03 TILE

- A. Glazed Wall Tile: ANSI A137.1 standard grade.
 1. See FINISH LEGEND for specific manufacturer, products, sizes, pattern, color, and other pertinent details.
- B. Porcelain Tile: ANSI A137.1 standard grade.
 1. See FINISH LEGEND for specific manufacturer, products, sizes, patterns, colors, and other pertinent details.

2.04 TRIM AND ACCESSORIES

- A. Ceramic Trim: Matching bullnose ceramic shapes in sizes coordinated with field tile.
 1. Applications:
 - a. Open Edges: Bullnose.
 - b. Inside Corners: Jointed.
 2. Manufacturers: Same as for tile.

- B. Non-Ceramic Trim: Satin brass anodized extruded aluminum, style and dimensions to suit application, set with tile mortar or adhesive.
 - 1. Applications:
 - a. Open edges of wall and floor tile.
 - b. Thresholds at door openings.
 - 2. Products:
 - a. Schluter-Systems; Dilex: www.schluter.com/#sle.
 - b. See product indicated in FINISH LEGEND.

2.05 SETTING MATERIALS

- A. Provide setting and grout materials from same manufacturer.
- B. Improved Latex-Portland Cement Mortar Bond Coat: ANSI A118.15.
 - 1. Applications: Use where large and heavy tile mortar is indicated on drawings.
 - 2. Products:
 - a. Mapei Corporation; Granirapid System: www.mapei.com/#sle.
- C. Hybrid Polymer-Based Adhesive: One-part, non-sag, polymer-based adhesive suitable for setting gauged porcelain tiles, panels, and slabs.
 - 1. Products:
 - a. Mapei Corporation; Ultrabond ECO GPT: www.mapei.com/#sle.

2.06 GROUTS

- A. Provide setting and grout materials from same manufacturer.
- B. Standard Grout: ANSI A118.6 standard cement grout.
 - 1. Applications: Use where indicated on drawings. See FINISH LEGEND.
 - 2. Use sanded grout for joints 1/8 inch (3.2 mm) wide and larger; use unsanded grout for joints less than 1/8 inch (3.2 mm) wide.
 - 3. Color: As indicated on drawings.
 - 4. Products:
 - a. Mapei Corporation; Keracolor U Unsanded Grout: www.mapei.com/#sle.

2.07 MAINTENANCE MATERIALS

- A. Tile Sealant: Gunnable, silicone, siliconized acrylic, or urethane sealant; moisture and mildew resistant type.
 - 1. Applications: Between tile and plumbing fixtures.
 - 2. Color: As selected by Architect from manufacturer's full line.
 - 3. Products:
 - a. Mapei Corporation; Mapesil T Plus: www.mapei.com/#sle.

2.08 ACCESSORY MATERIALS

- A. Waterproofing & Uncoupling Membrane at Floors: Specifically designed for bonding to cementitious substrate under thick mortar bed or thin-set tile; complying with ANSI A118.10.
 - 1. Bonded Sheet Membrane Type:
 - a. Material: High-density polyethylene sheet membrane with nonwoven polypropylene laminated to both sides, 20 mils (0.5 mm) thick.
 - b. Products:
 - 1) Mapei Corporation; Mapeguard UM 35: www.mapei.com/#sle.
- B. Backer Board: Cementitious type complying with ANSI A118.9; high density, glass fiber reinforced, 5/8 inch (16 mm) thick; 2-inch (51 mm) wide coated glass fiber tape for joints and corners.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify subfloor surfaces are smooth and flat within tolerances specified for that type of work and are ready to receive tile.

- B. Verify wall surfaces are smooth and flat within tolerances specified for that type of work, are dust-free, and are ready to receive tile.
- C. Verify that subfloor surfaces are dust free and free of substances that could impair bonding of setting materials to subfloor surfaces.
- D. Verify that required floor-mounted utilities are in correct location.

3.02 PREPARATION

- A. Vacuum clean surfaces and damp clean.
- B. Seal substrate surface cracks with filler.
- C. Install cementitious backer board in accordance with ANSI A108.11 and board manufacturer's instructions. Tape joints and corners, cover with skim coat of setting material to feather edge.

3.03 INSTALLATION - GENERAL

- A. Install tile and thresholds and grout in accordance with applicable requirements of ANSI A108/A118/A136, manufacturer's instructions, and TCNA (HB) or TCNA (HB-GP) recommendations, as applicable.
- B. Lay tile to pattern indicated on drawings. Do not interrupt tile pattern through openings.
- C. Cut and fit tile to penetrations through tile, leaving sealant joint space. Form corners and bases neatly. Align floor joints.
- D. Place tile joints uniform in width, subject to variance in tolerance allowed in tile size. Make grout joints without voids, cracks, excess mortar or excess grout, or too little grout.
- E. Form internal angles square and external angles square.
- F. Install non-ceramic trim in accordance with manufacturer's instructions.
- G. Sound tile after setting. Replace hollow sounding units.
- H. Keep control and expansion joints free of mortar, grout, and adhesive.
- I. Prior to grouting, allow installation to completely cure; minimum of 48 hours.
- J. Grout tile joints unless otherwise indicated on drawings. Use standard grout unless otherwise indicated on drawings.
- K. At changes in plane and tile-to-tile control joints, use tile sealant instead of grout, with either bond breaker tape or backer rod as appropriate to prevent three-sided bonding.
 - 1. See Section 079200 for installation of sealant.

3.04 INSTALLATION - FLOORS - THIN-SET METHODS

- A. Over wood substrates, install in accordance with TCNA (HB) Method F142, with standard grout, unless otherwise indicated on drawings.
- B. Over wood substrates with backer board underlayment, install in accordance with TCNA (HB) Method F144, for cementitious backer boards, with standard grout.

3.05 INSTALLATION - WALL TILE

- A. On exterior walls, install in accordance with TCNA (HB) Method W244E, thin-set over cementitious backer units, with waterproofing membrane.
- B. Over cementitious backer units on studs, install in accordance with TCNA (HB) Method W244C, using membrane at toilet rooms and kitchens.

3.06 CLEANING

- A. Clean tile and grout surfaces.

3.07 PROTECTION

- A. Do not permit traffic over finished floor surface for 4 days after installation.

END OF SECTION

SECTION 095100 ACOUSTICAL CEILINGS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Suspended metal grid ceiling system.
- B. Acoustical units.

1.02 REFERENCE STANDARDS

- A. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process; 2023.
- B. ASTM A666 - Standard Specification for Annealed or Cold-Worked Austenitic Stainless Steel Sheet, Strip, Plate, and Flat Bar; 2023.
- C. ASTM C635/C635M - Standard Specification for Manufacture, Performance, and Testing of Metal Suspension Systems for Acoustical Tile and Lay-in Panel Ceilings; 2022.
- D. ASTM E1264 - Standard Classification for Acoustical Ceiling Products; 2023.

1.03 ADMINISTRATIVE REQUIREMENTS

- A. Sequence work to ensure acoustical ceilings are not installed until building is enclosed, sufficient heat is provided, dust generating activities have terminated, and overhead work is completed, tested, and approved.
- B. Do not install acoustical units until after interior wet work is dry.

1.04 SUBMITTALS

- A. See Section 013000 - Administrative Requirements for submittal procedures.
- B. Shop Drawings: Indicate grid layout and related dimensioning.
- C. Product Data: Provide data on suspension system components and acoustical units.
- D. Manufacturer's Installation Instructions: Indicate special procedures and perimeter conditions requiring special attention.

1.05 FIELD CONDITIONS

- A. Maintain uniform temperature of minimum 60 degrees F (16 degrees C), and maximum humidity of 40 percent prior to, during, and after acoustical unit installation.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Acoustic Tiles/Panels:
 - 1. Armstrong World Industries, Inc: www.armstrongceilings.com/#sle.
- B. Suspension Systems:
 - 1. Same as for acoustical units.
 - 2. Armstrong World Industries, Inc: www.armstrongceilings.com/#sle.

2.02 ACOUSTICAL UNITS

- A. Acoustical Units - General: ASTM E1264, Class A.
- B. Acoustical Panels, Type ACT-1: Mineral fiber with membrane-faced overlay, with the following characteristics:
 - 1. Classification: ASTM E1264 Type A.
 - a. Pattern: "G" - smooth.
 - 2. Size: 24 by 24 inches (610 by 610 mm).
 - 3. Thickness: 1 inch (25 mm).
 - 4. Panel Edge: Tegular.
 - 5. Suspension System Type ACT-1: Exposed grid.

6. Products:
 - a. Armstrong World Industries, Inc; Calla: www.armstrongceilings.com/#sle.
- C. Acoustical Panels, Type ACT-2: Mineral fiber with scrubbable finish, with the following characteristics:
 1. Classification: ASTM E1264 Type A.
 - a. Pattern: "G" - smooth.
 2. Size: 24 by 24 inches (610 by 610 mm).
 3. Thickness: 5/8 inch (16 mm).
 4. Panel Edge: Square.
 5. Color: White.
 6. Suspension System Type ACT-1: Exposed grid.
 7. Products:
 - a. Armstrong World Industries, Inc; Kitchen Zone.

2.03 SUSPENSION SYSTEM(S)

- A. Metal Suspension Systems - General: Complying with ASTM C635/C635M; die cut and interlocking components, with perimeter moldings, hold down clips, stabilizer bars, clips, and splices as required.
 1. Materials:
 - a. Steel Grid: ASTM A653/A653M, G30 coating, unless otherwise indicated.
 - b. Stainless Steel Grid: ASTM A666, Type 304.
- B. Exposed Suspension System, Type ACT-2: Type 304 stainless steel grid with polished stainless steel cap.
 1. Profile: Tee; 15/16 inch (24 mm) face width.
 2. Finish: Baked enamel.
 3. Color: White.
 4. Products:
 - a. Armstrong World Industries, Inc; Prelude XL: www.armstrongceilings.com/#sle.
- C. Exposed Suspension System, Type ACT-1: Hot-dip galvanized steel grid and cap.
 1. Profile: Tee; 9/16 inch (14 mm) face width.
 2. Finish: Baked enamel.
 3. Color: White.
 4. Products:
 - a. Armstrong World Industries, Inc; 9/16" Suprafine .

2.04 ACCESSORIES

- A. Support Channels and Hangers: Galvanized steel; size and type to suit application, seismic requirements, and ceiling system flatness requirement specified.
- B. Hanger Wire: 12 gauge, 0.08 inch (2 mm) galvanized steel wire.
- C. Hold-Down Clips: Manufacturer's standard clips to suit application.
- D. Perimeter Moldings: Same metal and finish as grid.
 1. Size: As required for installation conditions.
 2. Angle Molding: L-shaped, for mounting at same elevation as face of grid.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify existing conditions before starting work.
- B. Verify that layout of hangers will not interfere with other work.

3.02 PREPARATION

- A. Install after major above-ceiling work is complete.
- B. Coordinate the location of hangers with other work.

- C. Provide hanger clips during steel deck erection. Provide additional hangers and inserts as required.

3.03 INSTALLATION - SUSPENSION SYSTEM

- A. Rigidly secure system, including integral mechanical and electrical components, for maximum deflection of 1:360.
- B. Lay out system to a balanced grid design with edge units no less than 50 percent of acoustical unit size.
- C. Perimeter Molding: Install at intersection of ceiling and vertical surfaces and at junctions with other interruptions.
 - 1. Use longest practical lengths.
- D. Suspension System, Non-Seismic: Hang suspension system independent of walls, columns, ducts, pipes and conduit. Where carrying members are spliced, avoid visible displacement of face plane of adjacent members.
- E. Where ducts or other equipment prevent the regular spacing of hangers, reinforce the nearest affected hangers and related carrying channels to span the extra distance.
- F. Do not support components on main runners or cross runners if weight causes total dead load to exceed deflection capability.
- G. Support fixture loads using supplementary hangers located within 6 inches (152 mm) of each corner, or support components independently.
- H. Do not eccentrically load system or induce rotation of runners.

3.04 INSTALLATION - ACOUSTICAL UNITS

- A. Install acoustical units in accordance with manufacturer's instructions.
- B. Fit acoustical units in place, free from damaged edges or other defects detrimental to appearance and function.
- C. Fit border trim neatly against abutting surfaces.
- D. Install acoustical units level, in uniform plane, and free from twist, warp, and dents.
- E. Cutting Acoustical Units:
 - 1. Make field cut edges of same profile as factory edges.
- F. Where round obstructions occur, provide preformed closures to match perimeter molding.

3.05 TOLERANCES

- A. Maximum Variation from Flat and Level Surface: 1/8 inch in 10 feet (3 mm in 3 m).
- B. Maximum Variation from Plumb of Grid Members Caused by Eccentric Loads: 2 degrees.

3.06 CLEANING

- A. Clean surfaces.
- B. Replace damaged or abraded components.

END OF SECTION

SECTION 096429
WOOD STRIP AND PLANK FLOORING

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Wood plank flooring, nailed.
- B. Sleepers.
- C. Sheet vapor retarder.

1.02 REFERENCE STANDARDS

- A. NWFA (IG) - Installation Guidelines; Current Edition.

1.03 SUBMITTALS

- A. See Section 013000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Provide data for flooring.
- C. Shop Drawings: Indicate floor joint pattern and termination details.
- D. Manufacturer's Instructions: Indicate standard and special installation procedures.
- E. Maintenance Data: Include maintenance procedures and recommended maintenance materials.
- F. Maintenance Materials: Furnish the following for Owner's use in maintenance of project.
 - 1. See Section 016000 - Product Requirements, for additional provisions.
 - 2. Extra Flooring Material: 10 square yards (9 sq m) matching installed flooring.

1.04 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section with minimum three years documented experience.
- B. Installer Qualifications: Company specializing in performing work of the type specified and with at least three years of documented experience.

1.05 FIELD CONDITIONS

- A. Do not install wood flooring until wet construction work is complete and ambient air at installation space has moisture content stabilized at maximum moisture content of 40 percent.
- B. Provide heat, light, and ventilation prior to installation.
- C. Store materials in area of installation for minimum period of 24 hours prior to installation.
- D. Maintain minimum room temperature of 65 degrees F (18 degrees C) for a period of two days prior to delivery of materials to installation space, during installation, and after installation.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Hardwood Strip and Plank Flooring:
 - 1. Olde Savannah Flooring; www.oldsavannahflooring.com.

2.02 MATERIALS

- A. Wood Plank Flooring:
 - 1. Species: French Oak.
 - 2. Actual Thickness: 5/8 inch (15.875 mm).
 - 3. Actual Width: 7 inches (177.8 mm).
 - 4. Edge: Square.
 - 5. Length: 12 feet lengths.
 - 6. Factory Finish: Venice Color stain.
- B. Flooring Nails: Type recommended by flooring manufacturer.

- C. Sleepers and Shims: Softwood lumber, pressure treated for moisture protection, 1" x 4" size, cut and shimmed as necessary for levelness.
- D. Vapor Retarder: Black polyethylene sheet, 8 mil (0.2 mm) thick; 2 inch (50 mm) wide tape for joint sealing.
- E. Sheathing Paper: Plain building paper.

2.03 ACCESSORIES

- A. Wood Base: Same species as flooring; profile as indicated.
- B. Transition Strip: Same species and finish as flooring material; profiles indicated.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify existing conditions before starting this work.
- B. Verify wood subfloor is properly secured, smooth and flat to plus or minus 1/4 inch in 10 feet (6 mm in 3 m).

3.02 PREPARATION

- A. Sleepers and Shims:
 - 1. Place vapor retarder over subfloor surface, lapping edges and ends minimum 6 inches (150 mm) and tape seal; staple in place.
 - 2. Place sleepers over vapor retarder; space sleepers at 12 inches (300 mm) on center.
 - 3. Shim underside of sleepers to achieve level line of plus or minus 1/4 inch in 10 feet (6 mm in 3 m).
 - 4. Anchor sleepers to wood substrate with cement-coated nails; place nails at 16 inches (400 mm) on center.
- B. Prepare substrate to receive wood flooring in accordance with manufacturer's and NWFA instructions.
- C. Broom clean substrate.

3.03 INSTALLATION

- A. Sheathing Paper: Place over sleepers; lap edges and ends 2 inches (50 mm), staple in place.
- B. Wood Flooring:
 - 1. Install in accordance with manufacturer's and NWFA instructions; predrill and blind nail to subfloor.
 - 2. Lay flooring parallel to width of room areas. Verify alignment as work progresses.
 - 3. Arrange flooring with square ends set flush and tight.
 - 4. Terminate flooring at centerline of door openings where adjacent floor finish is dissimilar; provide divider strips and transition strips in accordance with flooring manufacturer's recommendations and as indicated.
 - 5. Install edge strips at unprotected or exposed edges, and where flooring terminates.
 - 6. Secure edge strips before installation of flooring with stainless steel screws.
 - 7. Install flooring under movable partitions without interrupting floor pattern.
 - 8. Provide 1/32 inch (0.8 mm) expansion space at fixed walls and other interruptions.
- C. Install base at floor perimeter to cover expansion space in accordance with manufacturer's instructions. Miter inside and outside corners.

3.04 CLEANING

- A. See Section 017000 - Execution and Closeout Requirements for additional requirements.
- B. Clean and polish floor surfaces in accordance with floor finish manufacturer's instructions.

3.05 PROTECTION

- A. Prohibit traffic on floor finish for 48 hours after installation.

- B. Place protective coverings over finished floors; do not remove coverings until Date of Substantial Completion.

END OF SECTION

**SECTION 096500
RESILIENT FLOORING**

PART 1 GENERAL

1.01 SECTION INCLUDES

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

1.02 REFERENCE STANDARDS

- A. ASTM E648 - Standard Test Method for Critical Radiant Flux of Floor-Covering Systems Using a Radiant Heat Energy Source; 2025.
- B. ASTM F970 - Standard Test Method for Measuring Recovery Properties of Floor Coverings after Static Loading; 2022.
- C. ASTM F1861 - Standard Specification for Resilient Wall Base; 2021.
- D. ASTM F1913 - Standard Specification for Vinyl Sheet Floor Covering Without Backing; 2019.

1.03 SUBMITTALS

- A. See Section 013000 - Administrative Requirements for submittal procedures.
- B. Product Data: Provide data on specified products, describing physical and performance characteristics; including sizes, patterns and colors available; and installation instructions.
- C. Shop Drawings: Indicate seaming plans and floor patterns.
- D. Certification: Prior to installation of flooring, submit written certification by flooring manufacturer and adhesive manufacturer that condition of subfloor is acceptable.
- E. Manufacturer's Qualification Statement.
- F. Installer's Qualification Statement.
- G. Maintenance Data: Include maintenance procedures, recommended maintenance materials, and suggested schedule for cleaning, stripping, and re-waxing.
- H. Maintenance Materials: Furnish the following for Owner's use in maintenance of project.
 - 1. See Section 016000 - Product Requirements, for additional provisions.
 - 2. Extra Flooring Material: 500 square feet (46.5 square meters) of each type and color.
 - 3. Extra Wall Base: 50 linear feet (15.25 linear meters) of each type and color.

1.04 QUALITY ASSURANCE

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

1.05 DELIVERY, STORAGE, AND HANDLING

- A. Upon receipt, immediately remove any shrink-wrap and check materials for damage and the correct style, color, quantity and run numbers.
- B. Store all materials off of the floor in an acclimatized, weather-tight space.
- C. Maintain temperature in storage area between 55 degrees F (13 degrees C) and 90 degrees F (72 degrees C).
- D. Protect roll materials from damage by storing on end.
- E. Do not double stack pallets.

1.06 FIELD CONDITIONS

- A. Store materials for not less than 48 hours prior to installation in area of installation at a temperature of 70 degrees F (21 degrees C) to achieve temperature stability. Thereafter, maintain conditions above 55 degrees F (13 degrees C).

PART 2 PRODUCTS

2.01 SHEET FLOORING

- A. Vinyl Sheet Flooring: Homogeneous without backing, with color and pattern throughout full thickness.
 - 1. Manufacturers:
 - a. Mannington Commercial: www.manningtoncommercial.com#sle.
 - 2. Minimum Requirements: Comply with ASTM F1913.
 - 3. Thickness: 0.080 inch (2.0 mm) nominal.
 - 4. Static Load Resistance: 250 psi (1725 kPa) minimum, when tested as specified in ASTM F970.
 - 5. Seams: Heat welded.
 - 6. Pattern: See FINISH LEGEND.
 - 7. Color: See FINISH LEGEND.
- B. Vinyl Sheet Flooring: Homogeneous without backing, with color and pattern throughout full thickness.
 - 1. Manufacturers:
 - a. Protect-All Flooring; Oscoda Plastics; <https://protect-allflooring.com>.
 - 2. Minimum Requirements: Comply with ASTM F1913.
 - 3. Thickness: 0.25 inch (6.35 mm) nominal.
 - 4. Sheet Width: 60 inch (1524 mm) minimum.
 - 5. Static Load Resistance: 250 psi (1725 kPa) minimum, when tested as specified in ASTM F970.
 - 6. Seams: Heat welded.
 - 7. Integral coved base with cove cap.
 - 8. Pattern: See FINISH LEGEND.
 - 9. Color: See FINISH LEGEND.
- C. Welding Rod: Solid bead in material compatible with flooring, produced by flooring manufacturer for heat welding seams, and in color matching field color.

2.02 RESILIENT BASE

- A. Resilient Base - RB-1: ASTM F1861, Type TP, rubber, thermoplastic; style as scheduled.
 - 1. Manufacturers:
 - a. Tarkett Flooring: www.tarkett.com/#sle.
 - 2. Height: 4 inches (100 mm).
 - 3. Thickness: 0.125 inch (3.2 mm).
 - 4. Finish: Satin.
 - 5. Color: As indicated on drawings.
 - 6. Accessories: Premolded external corners and internal corners.

2.03 ACCESSORIES

- A. Subfloor Filler: White premix latex; type recommended by adhesive material manufacturer.
- B. Primers, Adhesives, and Seam Sealer: Waterproof; types recommended by flooring manufacturer.
- C. Moldings, Transition and Edge Strips: Same material as flooring.
- D. Provide 11/32" thick underlayment grade plywood mechanically fastened to existing substrate for the entirety of the area scheduled to receive 1/4" thick resilient vinyl flooring by Protect-All Flooring.

- E. Provide Protect-All stainless steel drain rings, corner guards, transition strips, & cove caps as provided by Oscoda Plastics.

PART 3 EXECUTION

3.01 EXAMINATION

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

3.02 PREPARATION

- A. Prepare floor substrates as recommended by flooring and adhesive manufacturers.
- B. Remove subfloor ridges and bumps. Fill minor low spots, cracks, joints, holes, and other defects with subfloor filler to achieve smooth, flat, hard surface.
- C. Prohibit traffic until filler is fully cured.
- D. Clean substrate.

3.03 INSTALLATION - GENERAL

- A. Starting installation constitutes acceptance of subfloor conditions.
- B. Install in accordance with manufacturer's written instructions.
- C. Adhesive-Applied Installation:
 - 1. Fit joints and butt seams tightly.
 - 2. Set flooring in place, press with heavy roller to attain full adhesion.
- D. Install edge strips at unprotected or exposed edges, where flooring terminates, and where indicated.
- E. Scribe flooring to walls, columns, cabinets, floor outlets, and other appurtenances to produce tight joints.

3.04 INSTALLATION - SHEET FLOORING

- A. Lay flooring with joints and seams parallel to longer room dimensions, to produce minimum number of seams. Lay out seams to avoid widths less than 1/3 of roll width; match patterns at seams.
- B. Seams are prohibited in bathrooms, kitchens, toilet rooms, and custodial closets.
- C. Seal seams by heat welding where indicated.

3.05 INSTALLATION - RESILIENT BASE

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

3.06 CLEANING

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

3.07 PROTECTION

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

END OF SECTION

SECTION 097200 WALL COVERINGS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Surface preparation and prime painting.
- B. Wall covering.

1.02 REFERENCE STANDARDS

- A. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials; 2023d.

1.03 SUBMITTALS

- A. See Section 013000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Provide data on wall covering and adhesive.
- C. Shop Drawings: Indicate wall elevations with seaming layout.
- D. Manufacturer's Installation Instructions: Indicate special procedures.
- E. Manufacturer's Qualification Statement.
- F. Installer's Qualification Statement.
- G. Maintenance Materials: Furnish the following for Owner's use in maintenance of project.
 - 1. See Section 016000 - Product Requirements, for additional provisions.
 - 2. Extra Wall Covering Materials: 25 linear feet (8 linear m) of each color and pattern of wall covering; store where directed.
 - 3. Package and label each roll by manufacturer, color and pattern, and destination room number.

1.04 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section with minimum three years of documented experience.
- B. Installer Qualifications: Company specializing in performing work of the type specified and with at least three years of documented experience.

1.05 DELIVERY, STORAGE, AND HANDLING

- A. Inspect roll materials at arrival on site, to verify acceptability.
- B. Protect packaged adhesive from temperature cycling and cold temperatures.
- C. Do not store roll goods on end.

1.06 FIELD CONDITIONS

- A. Do not apply materials when surface and ambient temperatures are outside the temperature ranges required by the adhesive or wall covering product manufacturer.
- B. Maintain these conditions 24 hours before, during, and after installation of adhesive and wall covering.

PART 2 PRODUCTS

2.01 WALL COVERINGS

- A. General Requirements:
 - 1. Surface Burning Characteristics: Flame spread/Smoke developed index of 25/50, maximum, when tested in accordance with ASTM E84.
- B. Wall Covering: Paper-backed vinyl roll stock.
 - 1. Total Weight: 20 oz.
 - 2. Roll Width:Varies
 - 3. Backing: Polyethylene-coated paper.

- 4. See FINISH LEGEND for products, sizes, patterns, and colors.
- 5. Manufacturers:
 - a. Momentum textiles and Wallcovering.
- C. Adhesive: Type recommended by wall covering manufacturer to suit application to substrate.
- D. Substrate Filler: As recommended by adhesive and wall covering manufacturers; compatible with substrate.
- E. Substrate Primer and Sealer: Alkyd enamel type.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that substrate surfaces are prime painted and ready to receive work, and comply with requirements of wall covering manufacturer.
- B. Measure moisture content of surfaces using an electronic moisture meter. Do not apply wall coverings if moisture content of substrate exceeds level recommended by wall covering manufacturer.
- C. Verify flatness tolerance of surfaces does not vary more than 1/8 inch in 10 feet (3 mm in 3 m) nor vary at a rate greater than 1/16 inch/ft (1.5 mm/300 mm).

3.02 PREPARATION

- A. Fill cracks in substrate and smooth irregularities with filler; sand smooth.
- B. Wash impervious surfaces with tetra-sodium phosphate, rinse and neutralize; wipe dry.
- C. Surface Appurtenances: Remove or mask electrical plates, hardware, light fixture trim, escutcheons, and fittings prior to preparing surfaces or finishing.
- D. Surfaces: Correct defects and clean surfaces that affect work of this section. Remove existing coatings that exhibit loose surface defects.
- E. Apply one coat of primer sealer to substrate surfaces. Allow to dry. Lightly sand smooth.
- F. Vacuum clean surfaces free of loose particles.

3.03 INSTALLATION

- A. Apply adhesive and wall covering in accordance with manufacturer's instructions.
- B. Apply adhesive to wall surface immediately prior to application of wall covering.
- C. Apply wall covering smooth, without wrinkles, gaps or overlaps. Eliminate air pockets and ensure full bond to substrate surface.
- D. Butt edges tightly.
- E. Overlap adjacent panels as recommended by manufacturer.
- F. Horizontal seams are not acceptable.
- G. Do not seam within 2 inches (50 mm) of internal corners or within 6 inches (150 mm) of external corners.
- H. Install wall covering before installation of bases and items attached to or spaced slightly from wall surface.
- I. Do not install wall covering more than 1/4 inch (6 mm) below top of resilient base.
- J. Cover spaces above and below windows, above doors, in pattern sequence from roll.
- K. Where wall covering tucks into reveals, or metal wallboard or plaster stops, apply with contact adhesive within 6 inches (150 mm) of wall covering termination. Ensure full contact bond.
- L. Remove excess adhesive while wet from seam before proceeding to next wall covering sheet. Wipe clean with dry cloth.

3.04 CLEANING

- A. Clean wall coverings of excess adhesive, dust, dirt, and other contaminants.
- B. Reinstall wall plates and accessories removed prior to work of this section.

3.05 PROTECTION

- A. Do not permit construction activities at or near finished wall covering areas.

END OF SECTION

**SECTION 099113
EXTERIOR PAINTING**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Surface preparation.
- B. Field application of paints.
- C. Scope: Finish exterior surfaces exposed to view, unless fully factory-finished and unless otherwise indicated, including the following:
 - 1. Exposed surfaces of steel lintels and ledge angles.
 - 2. Mechanical and Electrical:
 - a. On the roof and outdoors, paint equipment exposed to weather or to view, including factory-finished materials.
- D. Do Not Paint or Finish the Following Items:
 - 1. Items factory-finished unless otherwise indicated; materials and products having factory-applied primers are not considered factory finished.
 - 2. Items indicated to receive other finishes.
 - 3. Items indicated to remain unfinished.
 - 4. Fire rating labels, equipment serial number and capacity labels, and operating parts of equipment.
 - 5. Floors, unless specifically indicated.
 - 6. Glass.

1.02 RELATED REQUIREMENTS

- A. Section 099123 - Interior Painting.

1.03 REFERENCE STANDARDS

- A. ASTM D4258 - Standard Practice for Surface Cleaning Concrete for Coating; 2023.
- B. ASTM D4442 - Standard Test Methods for Direct Moisture Content Measurement of Wood and Wood-Based Materials; 2020.
- C. MPI (APSM) - Master Painters Institute Architectural Painting Specification Manual; Current Edition.
- D. SSPC-SP 1 - Solvent Cleaning; 2015, with Editorial Revision (2016).
- E. SSPC-SP 6/NACE No.3 - Commercial Blast Cleaning; 2006.
- F. SSPC-SP 13/NACE No.6 - Surface Preparation of Concrete; 2018.

1.04 SUBMITTALS

- A. See Section 013000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Provide complete list of products to be used, with the following information for each:
 - 1. Manufacturer's name, product name and/or catalog number, and general product category (e.g. "alkyd enamel").
 - 2. MPI product number (e.g. MPI #47).
 - 3. Cross-reference to specified paint system(s) product is to be used in; include description of each system.
 - 4. Manufacturer's installation instructions.
 - 5. If proposal of substitutions is allowed under submittal procedures, explanation of substitutions proposed.
- C. Certification: By manufacturer that paints and finishes comply with VOC limits specified.
- D. Manufacturer's Instructions: Indicate special surface preparation procedures.

- E. Maintenance Data: Submit data including finish schedule showing where each product/color/finish was used, product technical data sheets, material safety data sheets (MSDS), care and cleaning instructions, touch-up procedures, repair of painted and finished surfaces, and color samples of each color and finish used.
- F. Maintenance Materials: Furnish the following for Owner's use in maintenance of project.
 - 1. See Section 016000 - Product Requirements, for additional provisions.
 - 2. Extra Paint and Finish Materials: 1 gallon (4 L) of each color; from the same product run, store where directed.
 - 3. Label each container with color in addition to the manufacturer's label.

1.05 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing the products specified, with minimum three years documented experience.
- B. Applicator Qualifications: Company specializing in performing the type of work specified with minimum three years experience and approved by manufacturer.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. Deliver products to site in sealed and labeled containers; inspect to verify acceptability.
- B. Container Label: Include manufacturer's name, type of paint, brand name, lot number, brand code, coverage, surface preparation, drying time, cleanup requirements, color designation, and instructions for mixing and reducing.
- C. Paint Materials: Store at minimum ambient temperature of 45 degrees F (7 degrees C) and a maximum of 90 degrees F (32 degrees C), in ventilated area, and as required by manufacturer's instructions.

1.07 FIELD CONDITIONS

- A. Do not apply materials when surface and ambient temperatures are outside the paint product manufacturer's temperature ranges.
- B. Follow manufacturer's recommended procedures for producing best results, including testing of substrates, moisture in substrates, and humidity and temperature limitations.
- C. Do not apply exterior paint and finishes during rain or snow, or when relative humidity is outside the humidity ranges required by the paint product manufacturer.
- D. Minimum Application Temperatures for Latex Paints: 50 degrees F (10 degrees C) for exterior; unless required otherwise by manufacturer's instructions.
- E. Provide lighting level of 80 ft candles (860 lx) measured mid-height at substrate surface.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Paints:
 - 1. Behr Paint Company: www.behr.com/#sle.
 - 2. Pittsburgh Paints: www.pittsburghpaintsco.com/#sle.
 - 3. Sherwin-Williams Company: www.sherwin-williams.com/#sle.
 - 4. Benjamin Moore & Co.: www.benjaminmoore.com.

2.02 PAINTS AND FINISHES - GENERAL

- A. Paints and Finishes: Ready-mixed, unless required to be a field-catalyzed paint.
 - 1. Provide paints and finishes of a soft paste consistency, capable of being readily and uniformly dispersed to a homogeneous coating, with good flow and brushing properties, and capable of drying or curing free of streaks or sags.
 - 2. Provide materials that are compatible with one another and the substrates indicated under conditions of service and application, as demonstrated by manufacturer based on testing and field experience.

3. Supply each paint material in quantity required to complete entire project's work from a single production run.
 4. Do not reduce, thin, or dilute paint or finishes or add materials unless such procedure is described explicitly in manufacturer's product instructions.
- B. Sheens: Provide the sheens specified; where sheen is not specified, sheen will be selected later by Architect from the manufacturer's full line.
- C. Colors: To be selected from manufacturer's full range of available colors.
1. Selection to be made by Architect after award of contract.

2.03 PAINT SYSTEMS - EXTERIOR

- A. Paint E-OP - Exterior Surfaces to be Painted, Unless Otherwise Indicated: Including concrete, concrete masonry units, brick, fiber cement siding, primed wood, and primed metal.
1. Two top coats and one coat primer.
 2. Top Coat(s): Exterior Latex; MPI #10, 11, 15, 119, or 214.
 - a. Products:
 - 1) Behr Premium Plus Exterior Semi-Gloss Enamel [No.5050].
 - 2) Pittsburgh Paints Speedhide Exterior Latex, 6-900XI Series, Semi-Gloss. (MPI #11)
 - 3) Sherwin-Williams Pro Industrial Acrylic, Semi-Gloss.

2.04 ACCESSORY MATERIALS

- A. Accessory Materials: Provide primers, sealers, cleaning agents, cleaning cloths, sanding materials, and clean-up materials as required for final completion of painted surfaces.
- B. Patching Material: Latex filler.
- C. Fastener Head Cover Material: Latex filler.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that surfaces are ready to receive work as instructed by the product manufacturer.
- B. Examine surfaces scheduled to be finished prior to commencement of work. Report any condition that may potentially affect proper application.
- C. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.
- D. Test shop-applied primer for compatibility with subsequent cover materials.
- E. Measure moisture content of surfaces using an electronic moisture meter. Do not apply finishes unless moisture content of surfaces are below the following maximums:
1. Fiber Cement Siding: 12 percent.
 2. Masonry, Concrete, and Concrete Masonry Units: 12 percent.
 3. Exterior Wood: 15 percent, measured in accordance with ASTM D4442.

3.02 PREPARATION

- A. Clean surfaces thoroughly and correct defects prior to application.
- B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
- C. Remove or mask surface appurtenances, including electrical plates, hardware, light fixture trim, escutcheons, and fittings, prior to preparing surfaces for finishing.
- D. Seal surfaces that might cause bleed through or staining of topcoat.
- E. Remove mildew from impervious surfaces by scrubbing with solution of tetra-sodium phosphate and bleach. Rinse with clean water and allow surface to dry.
- F. Concrete:

1. Clean surfaces with pressurized water. Use pressure range of 1,500 to 4,000 psi (10,350 to 27,580 kPa) at 6 to 12 inches (150 to 300 mm). Allow to dry.
 2. Clean concrete according to ASTM D4258. Allow to dry.
 3. Prepare surface as recommended by top coat manufacturer and in accordance with SSPC-SP 13/NACE No.6.
- G. Masonry:
1. Remove efflorescence and chalk. Do not coat surfaces if moisture content or alkalinity of surfaces or if alkalinity of mortar joints exceed that permitted in manufacturer's written instructions. Allow to dry.
 2. Prepare surface as recommended by top coat manufacturer.
 3. Clean surfaces with pressurized water. Use pressure range of 600 to 1,500 psi (4,140 to 10,350 kPa) at 6 to 12 inches (150 to 300 mm). Allow to dry.
- H. Fiber Cement Siding: Remove dirt, dust and other foreign matter with a stiff fiber brush. Do not coat surfaces if moisture content or alkalinity of surfaces to be coated exceeds that permitted in manufacturer's written instructions.
- I. Ferrous Metal:
1. Solvent clean according to SSPC-SP 1.
 2. Shop-Primed Surfaces: Sand and scrape to remove loose primer and rust. Feather edges to make touch-up patches inconspicuous. Clean surfaces with solvent. Prime bare steel surfaces. Re-prime entire shop-primed item.
 3. Remove rust, loose mill scale, and other foreign substances using methods recommended in writing by paint manufacturer and blast cleaning in accordance with SSPC-SP 6/NACE No.3. Protect from corrosion until coated.
- J. Exterior Wood Surfaces to Receive Opaque Finish: Remove dust, grit, and foreign matter. Seal knots, pitch streaks, and sappy sections. Fill nail holes with tinted exterior caulking compound after prime coat has been applied. Back prime concealed surfaces before installation.
- K. Metal Doors to be Painted: Prime metal door top and bottom edge surfaces.

3.03 APPLICATION

- A. Remove unfinished louvers, grilles, covers, and access panels on mechanical and electrical components and paint separately.
- B. Exterior Wood to Receive Opaque Finish: If final painting must be delayed more than 2 weeks after installation of woodwork, apply primer within 2 weeks and final coating within 4 weeks.
- C. Apply products in accordance with manufacturer's written instructions and recommendations in "MPI Architectural Painting Specification Manual".
- D. Do not apply finishes to surfaces that are not dry. Allow applied coats to dry before next coat is applied.
- E. Apply each coat to uniform appearance.
- F. Sand wood and metal surfaces lightly between coats to achieve required finish.
- G. Vacuum clean surfaces of loose particles. Use tack cloth to remove dust and particles just prior to applying next coat.
- H. Reinstall electrical cover plates, hardware, light fixture trim, escutcheons, and fittings removed prior to finishing.

3.04 FIELD QUALITY CONTROL

- A. See Section 014000 - Quality Requirements, for general requirements for field inspection.
- B. Owner will provide field inspection.

3.05 CLEANING

- A. Collect waste material that could constitute a fire hazard, place in closed metal containers, and remove daily from site.

3.06 PROTECTION

- A. Protect finishes until completion of project.
- B. Touch-up damaged finishes after Substantial Completion.

END OF SECTION

**SECTION 099123
INTERIOR PAINTING**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Surface preparation.
- B. Field application of paints.
- C. Scope: Finish interior surfaces exposed to view, unless fully factory-finished and unless otherwise indicated.
 - 1. Both sides and edges of plywood backboards for electrical and telecom equipment before installing equipment.
 - 2. Prime surfaces to receive wall coverings.
 - 3. Mechanical and Electrical:
 - a. In finished areas, paint insulated and exposed pipes, conduit, boxes, insulated and exposed ducts, hangers, brackets, collars and supports, mechanical equipment, and electrical equipment, unless otherwise indicated.
 - b. In finished areas, paint shop-primed items.
 - c. Paint interior surfaces of air ducts and convector and baseboard heating cabinets that are visible through grilles and louvers with one coat of flat black paint to visible surfaces.
- D. Do Not Paint or Finish the Following Items:
 - 1. Items factory-finished unless otherwise indicated; materials and products having factory-applied primers are not considered factory finished.
 - 2. Items indicated to receive other finishes.
 - 3. Items indicated to remain unfinished.
 - 4. Fire rating labels, equipment serial number and capacity labels, bar code labels, and operating parts of equipment.
 - 5. Stainless steel, anodized aluminum, bronze, terne-coated stainless steel, and lead items.
 - 6. Marble, granite, slate, and other natural stones.
 - 7. Floors, unless specifically indicated.
 - 8. Ceramic and other tiles.
 - 9. Brick, architectural concrete, cast stone, integrally colored plaster, and stucco.
 - 10. Glass.
 - 11. Concrete masonry units in utility, mechanical, and electrical spaces.
 - 12. Acoustical materials, unless specifically indicated.
 - 13. Concealed pipes, ducts, and conduits.

1.02 RELATED REQUIREMENTS

- A. Section 099113 - Exterior Painting.

1.03 REFERENCE STANDARDS

- A. ASTM D4258 - Standard Practice for Surface Cleaning Concrete for Coating; 2023.
- B. ASTM D4442 - Standard Test Methods for Direct Moisture Content Measurement of Wood and Wood-Based Materials; 2020.
- C. MPI (APSM) - Master Painters Institute Architectural Painting Specification Manual; Current Edition.
- D. SSPC-SP 1 - Solvent Cleaning; 2015, with Editorial Revision (2016).
- E. SSPC-SP 6/NACE No.3 - Commercial Blast Cleaning; 2006.
- F. SSPC-SP 13/NACE No.6 - Surface Preparation of Concrete; 2018.

1.04 SUBMITTALS

- A. See Section 013000 - Administrative Requirements, for submittal procedures.

- B. Product Data: Provide complete list of products to be used, with the following information for each:
 - 1. Manufacturer's name, product name and/or catalog number, and general product category (e.g., "alkyd enamel").
 - 2. MPI product number (e.g., MPI #47).
 - 3. Cross-reference to specified paint system products to be used in project; include description of each system.
 - 4. Manufacturer's installation instructions.
 - 5. If proposal of substitutions is allowed under submittal procedures, explanation of substitutions proposed.
- C. Certification: By manufacturer that paints and finishes comply with VOC limits specified.
- D. Manufacturer's Instructions: Indicate special surface preparation procedures.
- E. Maintenance Data: Submit data including finish schedule showing where each product/color/finish was used, product technical data sheets, material safety data sheets (MSDS), care and cleaning instructions, touch-up procedures, repair of painted and finished surfaces, and color samples of each color and finish used.
- F. Maintenance Materials: Furnish the following for Owner's use in maintenance of project.
 - 1. See Section 016000 - Product Requirements, for additional provisions.
 - 2. Extra Paint and Finish Materials: 1 gal (4 L) of each color; from the same product run, store where directed.
 - 3. Label each container with color in addition to the manufacturer's label.

1.05 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing the products specified, with minimum three years documented experience.
- B. Applicator Qualifications: Company specializing in performing the type of work specified with minimum three years experience and approved by manufacturer.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. Deliver products to site in sealed and labeled containers; inspect to verify acceptability.
- B. Container Label: Include manufacturer's name, type of paint, brand name, lot number, brand code, coverage, surface preparation, drying time, cleanup requirements, color designation, and instructions for mixing and reducing.
- C. Paint Materials: Store at minimum ambient temperature of 45 degrees F (7 degrees C) and a maximum of 90 degrees F (32 degrees C), in ventilated area, and as required by manufacturer's instructions.

1.07 FIELD CONDITIONS

- A. Do not apply materials when surface and ambient temperatures are outside the temperature ranges required by the paint product manufacturer.
- B. Follow manufacturer's recommended procedures for producing best results, including testing of substrates, moisture in substrates, and humidity and temperature limitations.
- C. Do not apply materials when relative humidity exceeds 85 percent, at temperatures less than 5 degrees F (3 degrees C) above the dew point, or to damp or wet surfaces.
- D. Minimum Application Temperatures for Paints: 50 degrees F (10 degrees C) for interiors unless required otherwise by manufacturer's instructions.
- E. Provide lighting level of 80 fc (860 lux) measured mid-height at substrate surface.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Provide paints and finishes from the same manufacturer to the greatest extent possible.

- B. Paints:
 - 1. Sherwin-Williams Company: www.sherwin-williams.com/#sle.
 - 2. Benjamin Moore & Co.: www.benjaminmoore.com.
- C. Primer Sealers: Same manufacturer as top coats.

2.02 PAINTS AND FINISHES - GENERAL

- A. Paints and Finishes: Ready-mixed, unless intended to be a field-catalyzed paint.
 - 1. Provide paints and finishes of a soft paste consistency, capable of being readily and uniformly dispersed to a homogeneous coating, with good flow and brushing properties, and capable of drying or curing free of streaks or sags.
 - 2. Supply each paint material in quantity required to complete entire project's work from a single production run.
 - 3. Do not reduce, thin, or dilute paint or finishes or add materials unless such procedure is specifically described in manufacturer's product instructions.
- B. Sheens: Provide the sheens specified; where sheen is not specified, sheen will be selected later by Architect from the manufacturer's full line.
- C. Colors: As indicated on drawings. See FINISH LEGEND.
 - 1. In finished areas, finish pipes, ducts, conduit, and equipment the same color as the wall/ceiling under which they are mounted.

2.03 PAINT SYSTEMS - INTERIOR

- A. Paint I-OP - Interior Surfaces to be Painted, Unless Otherwise Indicated: Including gypsum board, concrete, concrete masonry units, brick, wood, plaster, uncoated steel, shop primed steel, galvanized steel, aluminum, and acoustical ceilings.
 - 1. Two top coats and one coat primer.
 - 2. Top Coat(s): Institutional Low Odor/VOC Interior Latex; MPI #143, 144, 145, 146, 147, or 148.
 - a. Products:
 - 1) Sherwin-Williams ProMar 200 Zero VOC Interior Latex, Flat.
 - 2) Benjamin Moore, Scuff-X, Interior Latex, Semi-Gloss, N487.
 - 3) Sherwin-Williams ProMar 200 Zero VOC Interior Latex, Satin.

2.04 ACCESSORY MATERIALS

- A. Accessory Materials: Provide primers, sealers, cleaning agents, cleaning cloths, sanding materials, and clean-up materials as required for final completion of painted surfaces.
- B. Patching Material: Latex filler.
- C. Fastener Head Cover Material: Latex filler.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Do not begin application of paints and finishes until substrates have been adequately prepared.
- B. Verify that surfaces are ready to receive work as instructed by the product manufacturer.
- C. Examine surfaces scheduled to be finished prior to commencement of work. Report any condition that may potentially affect proper application.
- D. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.
- E. Test shop-applied primer for compatibility with subsequent cover materials.
- F. Measure moisture content of surfaces using an electronic moisture meter. Do not apply finishes unless moisture content of surfaces is below the following maximums:
 - 1. Gypsum Wallboard: 12 percent.
 - 2. Plaster and Stucco: 12 percent.
 - 3. Masonry, Concrete, and Concrete Masonry Units: 12 percent.

4. Interior Wood: 15 percent, measured in accordance with ASTM D4442.

3.02 PREPARATION

- A. Clean surfaces thoroughly and correct defects prior to application.
- B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
- C. Remove or mask surface appurtenances, including electrical plates, hardware, light fixture trim, escutcheons, and fittings, prior to preparing surfaces or finishing.
- D. Seal surfaces that might cause bleed through or staining of topcoat.
- E. Concrete:
 1. Clean surfaces with pressurized water. Use pressure range of 1,500 to 4,000 psi (10,350 to 27,580 kPa) at 6 to 12 inches (150 to 300 mm). Allow to dry.
 2. Clean concrete according to ASTM D4258. Allow to dry.
 3. Prepare surface as recommended by top coat manufacturer and in accordance with SSPC-SP 13/NACE No.6.
- F. Masonry:
 1. Remove efflorescence and chalk. Do not coat surfaces if moisture content, alkalinity of surfaces, or if alkalinity of mortar joints exceed that permitted in manufacturer's written instructions. Allow to dry.
 2. Prepare surface as recommended by top coat manufacturer.
 3. Clean surfaces with pressurized water. Use pressure range of 600 to 1,500 psi (4,140 to 10,350 kPa) at 6 to 12 inches (150 to 300 mm). Allow to dry.
- G. Gypsum Board: Fill minor defects with filler compound. Spot prime defects after repair.
- H. Plaster: Fill hairline cracks, small holes, and imperfections with latex patching plaster. Make smooth and flush with adjacent surfaces. Wash and neutralize high-alkali surfaces.
- I. Insulated Coverings: Remove dirt, grease, and oil from canvas and cotton.
- J. Aluminum: Remove surface contamination and oils and wash with solvent according to SSPC-SP 1.
- K. Galvanized Surfaces:
 1. Remove surface contamination and oils and wash with solvent according to SSPC-SP 1.
- L. Ferrous Metal:
 1. Solvent clean according to SSPC-SP 1.
 2. Shop-Primed Surfaces: Sand and scrape to remove loose primer and rust. Feather edges to make touch-up patches inconspicuous. Clean surfaces with solvent. Prime bare steel surfaces. Re-prime entire shop-primed item.
 3. Remove rust, loose mill scale, and other foreign substances using methods recommended in writing by paint manufacturer and blast cleaning in accordance with SSPC-SP 6/NACE No.3. Protect from corrosion until coated.
- M. Wood Surfaces to Receive Opaque Finish: Wipe off dust and grit prior to priming. Seal knots, pitch streaks, and sappy sections with sealer. Fill nail holes and cracks after primer has dried; sand between coats. Back prime concealed surfaces before installation.
- N. Wood Doors to be Field-Finished: Seal wood door top and bottom edge surfaces with tinted primer.
- O. Metal Doors to be Painted: Prime metal door top and bottom edge surfaces.

3.03 APPLICATION

- A. Remove unfinished louvers, grilles, covers, and access panels on mechanical and electrical components and paint separately.
- B. Apply products in accordance with manufacturer's written instructions and recommendations in "MPI Architectural Painting Specification Manual".

- C. Do not apply finishes to surfaces that are not dry. Allow applied coats to dry before next coat is applied.
- D. Apply each coat to uniform appearance in thicknesses specified by manufacturer.
- E. Dark Colors and Deep Clear Colors: Regardless of number of coats specified, apply as many coats as necessary for complete hide.
- F. Sand wood and metal surfaces lightly between coats to achieve required finish.
- G. Vacuum clean surfaces of loose particles. Use tack cloth to remove dust and particles just prior to applying next coat.
- H. Reinstall electrical cover plates, hardware, light fixture trim, escutcheons, and fittings removed prior to finishing.

3.04 FIELD QUALITY CONTROL

- A. See Section 014000 - Quality Requirements, for general requirements for field inspection.
- B. Owner will provide field inspection.

3.05 CLEANING

- A. Collect waste material that could constitute a fire hazard, place in closed metal containers, and remove daily from site.

3.06 PROTECTION

- A. Protect finishes until completion of project.
- B. Touch-up damaged finishes after Substantial Completion.

END OF SECTION

SECTION 102113.16
PLASTIC-LAMINATE-CLAD TOILET COMPARTMENTS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Plastic laminate toilet compartments.
- B. Urinal screens.

1.02 REFERENCE STANDARDS

- A. ANSI A208.1 - American National Standard for Particleboard; 2022.
- B. NEMA LD 3 - High-Pressure Decorative Laminates; 2005.

1.03 ADMINISTRATIVE REQUIREMENTS

- A. Coordination: Coordinate the work with placement of support framing and anchors in walls and ceilings.

1.04 SUBMITTALS

- A. See Section 013000 - Administrative Requirements, for submittal procedures.
- B. Shop Drawings: Indicate partition plan, elevation views, dimensions, details of wall supports, door swings.
- C. Product Data: Provide data on panel construction, hardware, and accessories.
- D. Samples: Submit two samples of partition panels, 6 by 6 inches (152 by 152 mm) in size illustrating panel finish, color, and sheen.
- E. Manufacturer's Installation Instructions: Indicate special procedures.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Plastic Laminate Toilet Compartments:
 - 1. Ironwood Mfg: <https://ironwood-mfg.com>.

2.02 MATERIALS

- A. Particleboard for Core: ANSI A208.1 composed of wood chips, sawdust or flakes, made with waterproof resin binder; of grade to suit application; sanded faces.
- B. Plastic Laminate: NEMA LD 3, HGS.

2.03 COMPONENTS

- A. Toilet Compartments: Plastic laminate finished, floor-mounted headrail-braced.
- B. Doors, Panels, and Pilasters: Plastic laminate adhesive and pressure bonded to faces and edges of particleboard core, with beveled corners and edges; edges of cut-outs sealed.
 - 1. Plastic Laminate & Door Insert Color and Finish: See FINISH LEGEND.
- C. Door and Panel Dimensions:
 - 1. Thickness: 1 inch (25 mm).
 - 2. Door Width: 24 inches (610 mm).
 - 3. Door Width for Handicapped Use: 36 inches (915 mm), outswinging.
 - 4. Height: 58 inches (1473 mm).
 - 5. Thickness of Pilasters: 1-1/4 inches (32 mm).
 - 6. Joints: stiles and rails are doweled.
 - 7. Door Panel: Acrylic or Frosted Glass Lite Insert.
- D. Urinal Screens: Wall mounted with two panel brackets, and floor-to-ceiling vertical upright consisting of pilaster anchored to floor and ceiling.

2.04 ACCESSORIES

- A. Pilaster Shoes: Formed chromed steel with polished finish, 3 inches (75 mm) high, concealing floor fastenings.
 - 1. Provide adjustment for floor variations with screw jack through steel saddles integral with pilaster.
- B. Head Rails: Hollow chrome plated steel tube, 1 x 1-5/8 inch (25 x 41 mm) size, with anti-grip strips and cast socket wall brackets.
- C. Wall and Pilaster Brackets: Satin stainless steel.
- D. Attachments, Screws, and Bolts: Stainless steel , tamper proof type.
 - 1. For attaching panels and pilasters to brackets: Through-bolts and nuts ; tamper proof.
- E. Hardware: Satin stainless steel:
 - 1. Pivot hinges, gravity type, adjustable for door close positioning; two per door.
 - 2. Thumb turn door latch with exterior emergency access feature.
 - 3. Door strike and keeper with rubber bumper; mounted on pilaster in alignment with door latch.
 - 4. Coat hook with rubber bumper; one per compartment, mounted on door.
 - 5. Provide door pull for outswinging doors.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that field measurements are as indicated on shop drawings.
- B. Verify correct spacing of and between plumbing fixtures.

3.02 INSTALLATION

- A. Install partitions secure, rigid, plumb, and level in accordance with manufacturer's instructions.
- B. Maintain 3/8 to 1/2 inch (9 to 13 mm) space between wall and panels and between wall and end pilasters.
- C. Attach panel brackets securely to walls using anchor devices.
- D. Attach panels and pilasters to brackets. Locate head rail joints at pilaster center lines.
- E. Field touch-up of scratches or damaged finish will not be permitted. Replace damaged or scratched materials with new materials.

3.03 TOLERANCES

- A. Maximum Variation From True Position: 1/4 inch (6 mm).
- B. Maximum Variation From Plumb: 1/8 inch (3 mm).

3.04 ADJUSTING

- A. Adjust and align hardware to uniform clearance at vertical edge of doors, not exceeding 3/16 inch (5 mm).
- B. Adjust hinges to position doors in partial opening position when unlatched. Return out-swinging doors to closed position.
- C. Adjust adjacent components for consistency of line or plane.

END OF SECTION

SECTION 102239 FOLDING PANEL PARTITIONS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Top-supported folding panel partitions, horizontal opening.

1.02 REFERENCE STANDARDS

- A. ASTM B221 - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes; 2021.
- B. ASTM B221M - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes (Metric); 2021.
- C. ASTM E90 - Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements; 2023.
- D. ASTM E413 - Classification for Rating Sound Insulation; 2022.
- E. ASTM E557 - Standard Guide for Architectural Design and Installation Practices for Sound Isolation Between Spaces Separated by Operable Partitions; 2012 (Reapproved 2020).
- F. ASTM F793/F793M - Standard Classification of Wall Coverings and Ceiling Coverings by Use Characteristics; 2025.

1.03 SUBMITTALS

- A. See Section 013000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Provide data on partition materials, operation, hardware and accessories, track switching components, and colors and finishes available.
- C. Design Data: Design calculations, bearing seal and signature of structural engineer licensed to practice in the State in which the Project is located, showing loads at points of attachment to the building structure.
- D. Shop Drawings: Indicate opening sizes, track layout, details of track and required supports, static and dynamic loads, location and details of pass door and frame, adjacent construction and finish trim, and stacking depth.
- E. Samples for Review: Submit two samples of surface finish, 12 by 12 inches (300 by 300 mm) size, illustrating quality, colors selected, texture, and weight.
- F. Certificates: Certify that partition system meets or exceeds specified acoustic requirements.
- G. Manufacturer's Instructions: Indicate special procedures.
- H. Manufacturer's qualification statement.
- I. Installer's qualification statement.
- J. Maintenance Data: Include recommended cleaning methods, cleaning materials, and stain removal methods. Describe cleaning materials detrimental to finish surfaces and hardware finish.

1.04 QUALITY ASSURANCE

- A. Designer Qualifications: Perform design under direct supervision of Professional Engineer experienced in design of this type of work and licensed in the State in which the Project is located.
- B. Manufacturer Qualifications: Company specializing in manufacturing products specified this section with minimum three years of documented experience.

1.05 DELIVERY, STORAGE, AND HANDLING

- A. Store products in manufacturer's unopened packaging until installation.

1.06 WARRANTY

- A. See Section 017800 - Closeout Submittals, for additional warranty requirements.
- B. Correct defective Work within five year period after Date of Substantial Completion.
- C. Provide two year manufacturer warranty against defects in material and workmanship, excluding abuse.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Folding Panel Partitions - Horizontal Opening:
 - 1. Modernfold, a DORMA Group Company; AcoustiSeal, Encore - Single Panel:
www.modernfold.com/#sle.

2.02 FOLDING PANEL PARTITIONS - HORIZONTAL OPENING

- A. Folding Panel Partitions: Side opening; individual panels; side stacking; manually operated.
- B. Panel Construction:
 - 1. Frame: 16 gauge, 0.0598 inch (1.52 mm) thick formed sheet steel frame top, bottom, jams, and intermediates; welded construction, with acoustical insulation fill.
 - 2. Substrate: Steel.
 - 3. Panel Substrate Facing: Steel sheet, manufacturer's standard thickness.
 - 4. Panel Properties:
 - a. Thickness With Finish: 4 inches (100 mm).
 - b. Width: Standard width.
- C. Panel Finishes:
 - 1. Facing: Vinyl coated fabric. See FINISH LEGEND.
- D. Panel Seals:
 - 1. Panel to Panel Seals: Grooved and gasketed astragals, with continuous flexible ribbed vinyl seal fitted to panel edge construction; color to match panel finish.
 - 2. Acoustic Seals: Flexible acoustic seals at jams, meeting mullions, ceilings, retractable floor and ceiling seals, and above track to structure acoustic seal.
- E. Suspension System:
 - 1. Track: Formed steel; manufacturer's standard size; thickness and profile designed to support loads, steel sub-channel and track connectors, and track switches.
 - 2. Track System: Modernfold, #17HD BKT (4.5 PRG).
 - 3. Carriers: Nylon wheels on trolley carrier at top of every second panel, sized to carry imposed loads, with threaded pendant bolt for vertical adjustment.
- F. Performance:
 - 1. Acoustic Performance:
 - a. Sound Transmission Class (STC): 53 to 57 calculated in accordance with ASTM E413, based on tests conducted in accordance with ASTM E90, on panel size of 100 sq ft (9.3 sq m).
 - 2. Installed partition system track capable of supporting imposed loads, with maximum deflection of 1/360 of span.
- G. Accessories:
 - 1. Ceiling Closure: acoustical ceiling closure; aluminum jamb and head molding, fittings and attachments, and intermediate meeting posts.
 - 2. Pocket Enclosures: Door, frame, and trim to match adjacent walls. Provide Modernfold, TYPE 1 POCKET DOOR.
 - 3. Pass Door: Single door, 36 inch (914.4 mm) wide by 84 inch (2133.6 mm) high opening; same design and construction as panel; fit door with perimeter acoustic gaskets, concealed closer, keyed lock, tool operated floor seal, and handpulls.
 - 4. Provide recessed exit signs both sides of pass doors.

2.03 MATERIALS

- A. Aluminum Extrusions: ASTM B221 (ASTM B221M), 6063 alloy, T6 temper.
- B. Vinyl Coated Fabric: ASTM F793 Category VI, polyvinyl fluoride (PVC) finish for washability and improved flame retardance; color as selected by Architect from manufacturer's standard range.
- C. Acoustic Insulation:
 - 1. Type: As required for acoustic performance indicated.
 - 2. Thickness: As required for acoustic performance indicated.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that field measurements are as indicated.
- B. Verify track supports are laterally braced and will permit track to be level within 1/4 inch (6.4 mm) of required position and parallel to the floor surface.
- C. Verify floor flatness of 1/8 inch in 10 feet (3 mm in 3 m), non-cumulative.
- D. Verify wall plumbness of 1/8 inch in 10 feet (3 mm in 3 m), non-cumulative.

3.02 INSTALLATION

- A. Install partition in accordance with manufacturer's instructions and ASTM E557.
- B. Fit and align partition assembly and pocket doors level and plumb.
- C. Install acoustic sealant to achieve required acoustic performance.

3.03 ADJUSTING

- A. Adjust partition assembly to provide smooth operation from stacked to full open position. Do not over-compress acoustic seals.
- B. Visually inspect partition in full extended position for light leaks to identify a potential acoustical leak.
- C. Adjust partition assembly to achieve lightproof seal.

3.04 CLEANING

- A. Clean finish surfaces and partition accessories.

3.05 CLOSEOUT ACTIVITIES

- A. Demonstrate operation of partition and identify potential operational problems.

END OF SECTION

SECTION 122400 WINDOW SHADES

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Interior manual roller shades.
- B. Interior motorized roller shades.
- C. Motor controls.

1.02 REFERENCE STANDARDS

- A. NFPA 70 - National Electrical Code; Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.
- B. NFPA 701 - Standard Methods of Fire Tests for Flame Propagation of Textiles and Films; 2023, with Errata.
- C. UL 325 - Standard for Door, Drapery, Gate, Louver, and Window Operators and Systems; Current Edition, Including All Revisions.
- D. WCMA A100.1 - Standard for Safety of Window Covering Products; 2022.

1.03 ADMINISTRATIVE REQUIREMENTS

- A. Coordination:
 - 1. Coordinate the work with other trades to provide rough-in of electrical wiring as required for installation of hardwired motorized shades.
- B. Preinstallation Meeting: Convene one week prior to commencing work related to products of this section; require attendance of affected installers.
- C. Sequencing:
 - 1. Do not fabricate shades until field dimensions for each opening have been taken with field conditions in place.
 - 2. Do not install shades until final surface finishes and painting are complete.

1.04 SUBMITTALS

- A. See Section 013000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Provide manufacturer's standard catalog pages and data sheets, including materials, finishes, fabrication details, dimensions, profiles, mounting requirements, and accessories.
 - 1. Motorized Shades: Include power requirements and standard wiring diagrams for specified products.
- C. Shop Drawings: Include shade schedule indicating size, location and keys to details, head, jamb and sill details, mounting dimension requirements for each product and condition, and operation direction.
 - 1. Motorized Shades: Provide schematic system riser diagram indicating component interconnections. Include requirements for interface with other systems.
- D. Certificates: Manufacturer's documentation that line voltage components are UL listed or UL recognized.
- E. Source Quality Control Submittals: Provide test reports indicating compliance with specified fabric properties.
- F. Verification Samples: Minimum size 6 inches (150 mm) square, representing actual materials, color and pattern.
- G. Manufacturer's Instructions: Include instructions for storage, handling, protection, examination, preparation, and installation of product.
- H. Project Record Documents: Record actual locations of control systems and show interconnecting wiring.

- I. Operation and Maintenance Data: List of all components with part numbers, sources of supply, and operation and maintenance instructions; include copy of shop drawings.
- J. Warranty: Submit sample of manufacturer's warranty and documentation of final executed warranty completed in Owner's name and registered with manufacturer.

1.05 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section, with not less than five years of documented experience.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. Deliver shades in manufacturer's unopened packaging, labeled to identify each shade for each opening.
- B. Handle and store shades in accordance with manufacturer's recommendations.

1.07 FIELD CONDITIONS

- A. Do not install products under environmental conditions outside manufacturer's absolute limits.

1.08 WARRANTY

- A. See Section 017800 - Closeout Submittals, for additional warranty requirements.
- B. Provide manufacturer's warranty from Date of Substantial Completion, covering the following:
 - 1. Shade Hardware: Lifetime.
 - 2. Electric Motors: 5 years.
 - 3. Electronic Control Equipment: 5 years.
 - 4. Fabric: Lifetime.
 - 5. Aluminum and Steel Coatings: Lifetime.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Interior Manually Operated Roller Shades:
 - 1. SWFcontract, a division of Springs Window Fashions, LLC.; Pro Series Manual Solar Shade System: www.swfcontract.com/#sle.
- B. Interior Motorized Roller Shades, Motors and Motor Controls:
 - 1. SWFcontract, a division of Springs Window Fashions, LLC; Standard Motorized Solar Shades: www.swfcontract.com/#sle.

2.02 ROLLER SHADES

- A. General:
 - 1. Provide shade system components that are easy to remove or adjust without removal of mounted shade brackets.
 - 2. Provide shade system that operates smoothly when shades are raised or lowered.
 - 3. Motorized Shades: Motor system housed inside roller tube, controlling shade movement via motor controls indicated; listed or recognized to UL 325.
 - a. Comply with NFPA 70.
 - b. Electrical Components: Listed, classified, and labeled as suitable for the purpose intended. Where applicable, system components to be FCC compliant.
 - c. Motors: Size and configuration as recommended by manufacturer for the type, size, and arrangement of shades to be operated; integrated into shade operating components and concealed from view; fully compatible with controls to be installed.
- B. Interior Roller Shades - Basis of Design: SWF contract; Pro Series Manual Solar.
 - 1. Description: Single roller, manually operated fabric window shade system complete with mounting brackets, roller tubes, hembars, hardware, and other components necessary for complete installation.
 - a. Mounting: Wall mounted.
 - b. Size: As indicated on drawings.

- c. Fabric: As indicated on drawings.
- 2. Mounting Hardware: As recommended by manufacturer for mounting indicated and to accommodate shade fabric roll-up size and weight.
- 3. Roller Tubes: As required for type of shade operation; designed for removal without removing mounting hardware.
 - a. Material: Extruded aluminum or steel, with wall thickness and material selected by manufacturer.
 - b. Size: As recommended by manufacturer; selected for suitability for installation conditions, span, and weight of shades.
- 4. Hembars: Designed to maintain bottom of shade straight and flat, selected from manufacturer's standard options.
- 5. Manual Operation:
 - a. Clutch Operator: Manufacturer's standard material and design, permanently lubricated.
 - b. Drive Chain: Continuous loop, stainless steel, beaded ball chain, 95 lb (43 kg) minimum breaking strength; comply with WCMA A100.1. Provide upper and lower limit stops.
- C. Interior Roller Shades - Basis of Design: SWF contract; Standard Motorized Solar Shades.
 - 1. Description: Double roller, motor-operated fabric window shade system complete with mounting brackets, roller tubes, hembars, hardware, and other components necessary for complete installation.
 - a. Roll Direction: Bottom-up, closed position is at top of window opening.
 - b. Size: As indicated on drawings.
 - c. Fabric: As indicated on drawings.
 - 2. Brackets and Mounting Hardware: As recommended by manufacturer for mounting indicated and to accommodate shade fabric roll-up size and weight.
 - a. Hardware Type: Dual mounting end caps with fascia.
 - b. Double Roller Mounting: Configured for light-filtering and room-darkening shades in one opening.
 - 1) Light-Filtering Fabric: Room-side of opening.
 - 2) Room-Darkening Fabric: Glass-side of opening.
 - 3. Multiple Shade Operation: Provide hardware as necessary to operate more than one shade using a single motor.
 - 4. Roller Tubes: As required for type of shade operation; designed for removal without removing mounting hardware.
 - a. Material: Extruded aluminum or steel, with wall thickness and material selected by manufacturer.
 - b. Size: As recommended by manufacturer; selected for suitability for installation conditions, span, and weight of shades.
 - c. Take-Up Roller: Manufacturer's standard roller tube pretensioned for winding lift cable in bottom-up type shades.
 - 5. Hembars: Extruded aluminum, built-in pulley system for lifting shades; manufacturer's standard options.
 - 6. Shade Motor: Standard 120V AC motor, located as indicated on drawings

2.03 MOTOR CONTROLS

- A. Unless specifically indicated to be excluded, provide all required equipment, conduit, boxes, wiring, connectors, hardware, supports, accessories, software, system programming, etc. as necessary for a complete operating system that provides the control intent indicated.
- B. Provide all components and connections necessary to interface with other systems as indicated.
- C. Digital Network Controls:
 - 1. Intelligent Motors and Devices: Identifiable over network without separate interface.

2. Provide suitable interface modules as indicated or as required for connection to standard (nonintelligent) motors and devices.
3. Capable of reprogrammed control without requiring wiring modifications.
4. Capable of assigning shade motors to shade groups/sub-groups.
5. Capable of storing programmable open and close limits and minimum of three intermediate preset stop positions for each shade.
6. Capable of aligning adjacent shades within accuracy of plus/minus 0.25 inch (6.4 mm).
7. Provide 10 year nonvolatile power failure memory for system configuration settings.

2.04 ROLLER SHADE FABRICATION

- A. Field measure finished openings prior to ordering or fabrication.
- B. Dimensional Tolerances: Fabricate shades to fit openings within specified tolerances.
 1. Vertical Dimensions: Fill openings from head to sill with 1/2 inch (13 mm) space between bottom bar and window stool.
 2. Horizontal Dimensions - Inside Mounting: Fill openings from jamb to jamb.
- C. Dimensional Tolerances: As recommended in writing by manufacturer.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Examine finished openings for deficiencies that may preclude satisfactory installation.
- B. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.
- C. Start of installation shall be considered acceptance of substrates.

3.02 INSTALLATION

- A. Install in accordance with manufacturer's instructions and approved shop drawings, using mounting devices as indicated.
- B. Adjust level, projection, and shade centering from mounting bracket. Verify there is no telescoping of shade fabric. Ensure smooth shade operation.

3.03 SYSTEM STARTUP

- A. Motorized Shade System: Provide services of a manufacturer's authorized representative to perform system startup.

3.04 CLEANING

- A. Clean soiled shades and exposed components as recommended by manufacturer.
- B. Replace shades that cannot be cleaned to "like new" condition.

3.05 CLOSEOUT ACTIVITIES

- A. See Section 017800 - Closeout Submittals, for closeout submittals.
- B. See Section 017900 - Demonstration and Training, for additional requirements.
- C. Demonstration: Demonstrate operation and maintenance of window shade system to Owner's personnel.
- D. Training: Train Owner's personnel on operation and maintenance of system.
 1. Use operation and maintenance manual as training reference, supplemented with additional training materials as required.
 2. Provide minimum of two hours training by manufacturer's authorized personnel at location designated by the Owner.

3.06 PROTECTION

- A. Protect installed products from subsequent construction operations.
- B. Touch-up, repair, or replace damaged products before Substantial Completion.

3.07 MAINTENANCE

- A. See Section 017000 - Execution and Closeout Requirements, for additional requirements relating to maintenance service.

END OF SECTION

SECTION 123600 COUNTERTOPS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Countertops for architectural cabinet work.

1.02 REFERENCE STANDARDS

- A. ISFA 2-01 - Classification and Standards for Solid Surfacing Material; 2013.

1.03 SUBMITTALS

- A. See Section 013000 - Administrative Requirements for submittal procedures.
- B. Product Data: Manufacturer's data sheets on each product to be used, including:
 - 1. Preparation instructions and recommendations.
 - 2. Storage and handling requirements and recommendations.
 - 3. Specimen warranty.
- C. Shop Drawings: Complete details of materials and installation ; combine with shop drawings of cabinets and casework specified in other sections.
- D. Test Reports: Chemical resistance testing, showing compliance with specified requirements.
- E. Installer's qualification statement.
- F. Installation Instructions: Manufacturer's installation instructions and recommendations.
- G. Maintenance Data: Manufacturer's instructions and recommendations for maintenance and repair of countertop surfaces.

1.04 QUALITY ASSURANCE

- A. Installer Qualifications: Company specializing in performing work of the type specified in this section, with not less than three years of documented experience.

1.05 DELIVERY, STORAGE, AND HANDLING

- A. Store products in manufacturer's unopened packaging until ready for installation.
- B. Store and dispose of solvent-based materials, and materials used with solvent-based materials, in accordance with requirements of local authorities having jurisdiction.

1.06 FIELD CONDITIONS

- A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.

PART 2 PRODUCTS

2.01 COUNTERTOPS

- A. Solid Surfacing Countertops: Solid surfacing sheet or plastic resin casting over continuous substrate.
 - 1. Flat Sheet Thickness: 1/2 inch (12 mm), minimum.
 - 2. Solid Surfacing Sheet and Plastic Resin Castings: Complying with ISFA 2-01 and NEMA LD 3; acrylic or polyester resin, mineral filler, and pigments; homogenous, non-porous and capable of being worked and repaired using standard woodworking tools; no surface coating; color and pattern consistent throughout thickness.
 - a. Manufacturers:
 - 1) Dupont: www.corian.com/#sle.
 - b. Finish on Exposed Surfaces: Matte, gloss rating of 5 to 20.
 - c. Color and Pattern: As indicated on drawings.
 - 3. Other Components Thickness: 1/2 inch (12 mm), minimum.

4. Exposed Edge Treatment: Built up to minimum 1-1/2 inch (38 mm) thick; eased edge; use marine edge at sinks.

2.02 FABRICATION

- A. Fabricate tops and splashes in the largest sections practicable, with top surface of joints flush.
 1. Join lengths of tops using best method recommended by manufacturer.
 2. Fabricate to overhang fronts and ends of cabinets 1 inch (25 mm) except where top butts against cabinet or wall.
 3. Prepare all cutouts accurately to size; replace tops having improperly dimensioned or unnecessary cutouts or fixture holes.
- B. Solid Surfacing: Fabricate tops and wall panels up to 144 inches (3657 mm) long in one piece; join pieces with adhesive sealant in accordance with manufacturer's recommendations and instructions.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Do not begin installation until substrates have been properly prepared.
- B. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.
- C. Verify that wall surfaces have been finished and mechanical and electrical services and outlets are installed in proper locations.

3.02 PREPARATION

- A. Clean surfaces thoroughly prior to installation.
- B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

3.03 INSTALLATION

- A. Securely attach countertops to cabinets using concealed fasteners. Make flat surfaces level; shim where required.
- B. Seal joint between back/end splashes and vertical surfaces.

3.04 TOLERANCES

- A. Variation From Horizontal: 1/8 inch in 10 feet (3 mm in 3 m), maximum.
- B. Offset From Wall, Countertops: 1/8 inch (3 mm) maximum; 1/16 inch (1.5 mm) minimum.
- C. Field Joints: 1/8 inch (3 mm) wide, maximum.

3.05 CLEANING

- A. Clean countertops surfaces thoroughly.

3.06 PROTECTION

- A. Protect installed products until completion of project.
- B. Touch-up, repair or replace damaged products before Date of Substantial Completion.

END OF SECTION

SECTION 211300
FIRE-SUPPRESSION SPRINKLER SYSTEMS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Wet-pipe sprinkler system.
- B. System design, installation, and certification.

1.02 REFERENCE STANDARDS

- A. NFPA 13 - Standard for the Installation of Sprinkler Systems; Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.
- B. UL (DIR) - Online Certifications Directory; Current Edition.

1.03 ADMINISTRATIVE REQUIREMENTS

- A. Preinstallation Meeting: Convene one week before starting work of this section.

1.04 SUBMITTALS

- A. See Section 013000 - Administrative Requirements for submittal procedures.
- B. Product Data: Provide data on sprinklers, valves, and specialties, including manufacturers catalog information. Submit performance ratings, rough-in details, weights, support requirements, and piping connections.
- C. Shop Drawings:
 - 1. Submit preliminary layout of finished ceiling areas indicating only sprinkler locations coordinated with ceiling installation.
 - 2. Indicate hydraulic calculations, detailed pipe layout, hangers and supports, sprinklers, components, and accessories. Indicate system controls.
 - 3. Submit shop drawings to Authorities Having Jurisdiction for approval. Submit proof of approval to Architect.
- D. Manufacturer's Certificate: Certify that system has been tested and meets or exceeds specified requirements and code requirements.
- E. Operation and Maintenance Data: Include components of system, servicing requirements, record drawings, inspection data, replacement part numbers and availability, and location and numbers of service depot.
- F. Maintenance Materials: Furnish the following for Owner's use in maintenance of project.
 - 1. See Section 016000 - Product Requirements for additional provisions.
- G. Project Record Documents: Record actual locations of sprinklers and deviations of piping from drawings. Indicate drain and test locations.

1.05 QUALITY ASSURANCE

- A. Comply with UL (DIR) requirements.
- B. Designer Qualifications: Design system under direct supervision of a Professional Engineer experienced in design of this type of work and licensed in the State in which the Project is located.
- C. Installer Qualifications: Company specializing in performing the work of this section 5 and approved by manufacturer.
- D. Products Requiring Electrical Connection: Listed and classified by UL (DIR) as suitable for the purpose specified and indicated.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. Store products in shipping containers and maintain in place until installation. Provide temporary inlet and outlet caps. Maintain caps in place until installation.

PART 2 PRODUCTS

2.01 SPRINKLER SYSTEM

- A. Sprinkler System: Provide coverage for building areas noted.
- B. Occupancy: Ordinary hazard, Group 1; comply with NFPA 13.

2.02 SPRINKLERS

- A. Suspended Ceiling Type: Semi-recessed pendant type with matching push on escutcheon plate.
 - 1. Response Type: Quick.
 - 2. Coverage Type: Standard.
 - 3. Fusible Link: Fusible solder link type temperature rated for specific area hazard.
- B. Flexible Drop System: Stainless steel, multiple use, open gate type.
 - 1. Application: Use to properly locate sprinkler heads in BALLROOM 109 & BALLROOM 112 at Dogwood Pattern Metal Panel Ceiling.
 - 2. Include all supports and bracing.
 - 3. Provide braided type tube as required for the application.

PART 3 EXECUTION

3.01 INSTALLATION

- A. Install in accordance with referenced NFPA design and installation standard.
- B. Install equipment in accordance with manufacturer's instructions.
- C. Place pipe runs to minimize obstruction to other work.
- D. Place piping in concealed spaces above finished ceilings.
- E. Apply masking tape or paper cover to ensure concealed sprinklers, cover plates, and sprinkler escutcheons do not receive field paint finish. Remove after painting. Replace painted sprinklers.
- F. Flush entire piping system of foreign matter.
- G. Hydrostatically test entire system.
- H. Require test be witnessed by Fire Marshal.

3.02 INTERFACE WITH OTHER PRODUCTS

- A. Ensure required devices are installed and connected as required to fire alarm system.

END OF SECTION

SECTION 270533.13
CONDUIT FOR COMMUNICATIONS SYSTEMS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Galvanized steel rigid metal conduit (RMC).
- B. Flexible metal conduit (FMC).
- C. Galvanized steel electrical metallic tubing (EMT).

1.02 REFERENCE STANDARDS

- A. ANSI C80.1 - American National Standard for Electrical Rigid Steel Conduit (ERSC); 2020.
- B. ANSI C80.3 - American National Standard for Electrical Metallic Tubing -- Steel (EMT-S); 2020.
- C. BICSI ITSIMM - Information Technology Systems Installation Methods Manual (ITSIMM), 8th Edition; 2022.
- D. BICSI N1 - Installation Practices for Telecommunications and ICT Cabling and Related Cabling Infrastructure, 1st Edition; 2019.
- E. BICSI TDMM - Telecommunications Distribution Methods Manual, 14th Edition; 2020.
- F. NECA 1 - Standard for Good Workmanship in Electrical Construction; 2023.
- G. NECA 101 - Standard for Installing Steel Conduits (Rigid, IMC, EMT); 2020.
- H. NEMA FB 1 - Fittings, Cast Metal Boxes, and Conduit Bodies for Conduit, Electrical Metallic Tubing, and Cable; 2014.
- I. NFPA 70 - National Electrical Code; Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.
- J. TIA-568.0 - Generic Telecommunications Cabling for Customer Premises; 2020e.
- K. TIA-569 - Telecommunications Pathways and Spaces; 2019e, with Addendum (2022).
- L. UL 1 - Flexible Metal Conduit; Current Edition, Including All Revisions.
- M. UL 6 - Electrical Rigid Metal Conduit-Steel; Current Edition, Including All Revisions.
- N. UL 514B - Conduit, Tubing, and Cable Fittings; Current Edition, Including All Revisions.
- O. UL 797 - Electrical Metallic Tubing-Steel; Current Edition, Including All Revisions.
- P. UL 2024 - Standard for Cable Routing Assemblies and Communications Raceways; Current Edition, Including All Revisions.

1.03 ADMINISTRATIVE REQUIREMENTS

- A. Coordination:
 - 1. Coordinate minimum sizes of conduits with actual type and quantity of cables to be installed.
 - 2. Coordinate arrangement of conduits with structural members, ductwork, piping, equipment and other potential conflicts.
 - 3. Verify exact conduit termination locations required for boxes, enclosures, and equipment.
 - 4. Coordinate work to provide roof penetrations that preserve integrity of roofing system and do not void roof warranty.
 - 5. Notify Architect of conflicts with or deviations from Contract Documents. Obtain direction before proceeding with work.
- B. Sequencing:
 - 1. Do not begin installation of communications cables until installation of conduit between termination points is complete.

1.04 SUBMITTALS

- A. See Section 013000 - Administrative Requirements for submittals procedures.

- B. Product Data: Provide manufacturer's standard catalog pages and data sheets for conduits and fittings.
- C. Shop Drawings:
 - 1. Indicate proposed arrangement for conduits to be installed.

1.05 QUALITY ASSURANCE

- A. Documents at Project Site: Maintain at project site one copy of manufacturer's instructions and shop drawings.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. Receive, inspect, handle, and store conduit and fittings in accordance with manufacturer's instructions.

PART 2 PRODUCTS

2.01 CONDUIT APPLICATIONS

- A. Do not use conduit and associated fittings for applications other than as permitted by NFPA 70, TIA-569, BICSI ITSIMM, BICSI TDMM, manufacturers' instructions, and product listing.
- B. Unless otherwise indicated and where not otherwise restricted, use conduit types indicated for specified applications. Where more than one listed application applies, comply with most restrictive requirements. Where conduit type for particular application is not specified, use galvanized steel rigid metal conduit.
- C. Concealed Within Masonry Walls: Use galvanized steel rigid metal conduit (RMC) or galvanized steel electrical metallic tubing (EMT).
- D. Concealed Within Hollow Stud Walls: Use galvanized steel rigid metal conduit (RMC) or galvanized steel electrical metallic tubing (EMT).
- E. Concealed Above Accessible Ceilings: Use galvanized steel rigid metal conduit (RMC), galvanized steel electrical metallic tubing (EMT), or inside-plant flexible nonmetallic communications raceway/innerduct.
- F. Exposed, Interior, Not Subject to Physical Damage: Use galvanized steel rigid metal conduit (RMC) or galvanized steel electrical metallic tubing (EMT).
- G. Concealed, Exterior, Not Embedded in Concrete or in Contact With Earth: Use galvanized steel rigid metal conduit (RMC) or galvanized steel electrical metallic tubing (EMT).
- H. Fished in Existing Walls, Where Necessary: Use flexible metal conduit (FMC) or galvanized steel electrical metallic tubing (EMT).

2.02 CONDUIT - GENERAL REQUIREMENTS

- A. Comply with NFPA 70 and TIA-569.
- B. Provide conduit, fittings, supports, and accessories required for complete communications pathway.
- C. Provide products listed, classified, and labeled as suitable for purpose intended.
- D. Maximum Number of Communications Outlet Boxes per Continuous Conduit Homerun: Two.
- E. Minimum Conduit Size, Unless Otherwise Indicated:
 - 1. Communications Outlet Box: 3/4-inch (21 mm) trade size.
 - 2. Continuous Conduit Homerun Serving Two Communications Outlet Boxes: 1-inch (27 mm) trade size.
- F. Where conduit size is not indicated, size to comply with NFPA 70, TIA-569, and BICSI TDMM, but not less than applicable minimum size requirements specified. Where specified standards differ, comply with most stringent.

2.03 GALVANIZED STEEL RIGID METAL CONDUIT (RMC)

- A. Description: NFPA 70, Type RMC galvanized steel rigid metal conduit complying with ANSI C80.1 and listed and labeled as complying with UL 6.

- B. Fittings:
 - 1. Nonhazardous Locations: Use fittings complying with NEMA FB 1 and listed and labeled as complying with UL 514B or UL 6.
 - 2. Material: Use steel or malleable iron.
 - 3. Connectors and Couplings: Use threaded fittings only. Threadless fittings, including set screw and compression/gland types, are not permitted.
 - 4. Conduit Bodies: Use only conduit bodies specifically designed for communications cabling. Standard conduit bodies designed for electrical raceways are not permitted.
 - a. Comply with TIA-568.0 minimum bend radius requirements for fiber optic cables.

2.04 FLEXIBLE METAL CONDUIT (FMC)

- A. Description: NFPA 70, Type FMC standard-wall steel flexible metal conduit listed and labeled as complying with UL 1, and listed for use in classified firestop systems.
- B. Fittings:
 - 1. Description: Fittings complying with NEMA FB 1 and listed and labeled as complying with UL 514B.
 - 2. Material: Use steel or malleable iron.
 - 3. Conduit Bodies: Standard conduit bodies designed for electrical raceways are not permitted.

2.05 GALVANIZED STEEL ELECTRICAL METALLIC TUBING (EMT)

- A. Description: NFPA 70, Type EMT galvanized steel electrical metallic tubing complying with ANSI C80.3 and listed and labeled as complying with UL 797.
- B. Fittings:
 - 1. Description: Fittings complying with NEMA FB 1 and listed and labeled as complying with UL 514B.
 - 2. Material: Use steel or malleable iron.
 - 3. Connectors and Couplings: Use compression/gland or set-screw type.
 - a. Do not use indenter type connectors and couplings.
 - 4. Conduit Bodies: Use only conduit bodies specifically designed for communications cabling. Standard conduit bodies designed for electrical raceways are not permitted.
 - a. Comply with TIA-568.0 minimum bend radius requirements for fiber optic cables.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that field measurements are as indicated.
- B. Verify that mounting surfaces are ready to receive conduits.
- C. Verify that conditions are satisfactory for installation prior to starting work.

3.02 INSTALLATION

- A. Install products in accordance with manufacturer's instructions.
- B. Install conduit in accordance with NECA 1, BICSI ITSIMM, and BICSI N1.
- C. Galvanized Steel Rigid Metal Conduit (RMC): Install in accordance with NECA 101.
- D. Galvanized Steel Electrical Metallic Tubing (EMT): Install in accordance with NECA 101.
- E. Conduit Support:
 - 1. Secure and support conduits in accordance with NFPA 70 using suitable supports and methods approved by authorities having jurisdiction.
 - 2. Provide independent support from building structure. Do not provide support from piping, ductwork, or other systems.
 - 3. Installation Above Suspended Ceilings: Do not provide support from ceiling support system. Do not provide support from ceiling grid or allow conduits to lay on ceiling tiles.
- F. Connections and Terminations:

1. Use approved zinc-rich paint or conduit joint compound on field-cut threads of galvanized steel conduits prior to making connections.
 2. Where two threaded conduits must be joined and neither can be rotated, use three-piece couplings or split couplings. Do not use running threads.
 3. Use suitable adapters where required to transition from one type of conduit to another.
 4. Terminate threaded conduits in boxes and enclosures using threaded hubs or double lock nuts for dry locations and raintight hubs for wet locations.
 5. Provide insulating bushings, insulated throats, or listed metal fittings with smooth, rounded edges at conduit terminations to protect cables.
 6. Secure joints and connections to provide mechanical strength and electrical continuity.
- G. Penetrations:
1. Do not penetrate or otherwise notch or cut structural members, including footings and grade beams, without approval of Structural Engineer.
 2. Make penetrations perpendicular to surfaces unless otherwise indicated.
 3. Provide sleeves and/or slots for penetrations as indicated or as required to facilitate installation.
 4. Conceal bends for conduit risers emerging above ground.
 5. Where conduits penetrate waterproof membrane, seal as required to maintain integrity of membrane.
 6. Make penetrations for roof-mounted equipment within associated equipment openings and curbs where possible to minimize roofing system penetrations. Where penetrations are necessary, seal as indicated or as required to preserve integrity of roofing system and maintain roof warranty.
- H. Conduit Movement Provisions: Where conduits are subject to movement, provide expansion and expansion/deflection fittings to prevent damage to enclosed cables or connected equipment. This includes, but is not limited to:
1. Where conduits cross structural joints intended for expansion, contraction, or deflection.
 2. Where conduits are subject to earth movement by settlement or frost.
- I. Provide grounding and bonding.

END OF SECTION

APPENDIX A

DISADVANTAGED BUSINESS CERTIFICATION FORM

**Town of Vinton, Virginia
Construction Contract**

**Small Business, Minority & Women-Owned Business, Service Disabled
Veteran Business, and Employment Services Organizations
Certification Form**

*** SUBMIT WITH BID ***

The Town of Vinton ("Town") encourages, but does not require, participation by minority and women owned businesses, small businesses, service disabled veteran businesses, and employment services organizations in contracting opportunities. The following information will be used to assess the participation of minority and women owned businesses, small businesses, service disabled veteran businesses, and employment services organizations in this Project, but it will not be used to evaluate whether a bidder is the lowest responsive and responsible bidder.

The Bidder shall complete the following information:

Is Bidder a qualified minority or women-owned business, small business, service disabled veteran business, or employment services organization as defined in the Virginia Code § 2.2-4310 (collectively "Disadvantaged Businesses")? Yes: _____ No: _____.

Regardless of response to this first question Bidder shall complete the following:

Will bidder be using subcontractors on this Project? Yes: _____ No: _____

If yes, please identify any Disadvantaged Businesses you intend to utilize in the completion of the Work required by this Contract (attach additional sheet(s) if necessary):

<u>Name of Firm</u>	<u>Type of Labor, Service or Material Quoted</u>	<u>Amount of Contract Proposed Subcontract</u>
---------------------	--	--

_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

If none, please check here: _____.

BIDDER: _____

BY: _____

TYPED NAME: _____

TITLE: _____

DATE: _____

APPENDIX B

OWNER'S GENERAL CONDITONS

**Town of Vinton, Virginia
Vinton War Memorial Renovation Project**

Owner's General Conditions

These Owner's General Conditions will apply to the Contract between the Town of Vinton, Virginia ("TOWN" or "Owner") and the contractor selected for this Project in accordance with the Virginia Public Procurement Act. These Owner's General Conditions are intended to be read in conjunction with the other Contract Documents (as defined below) for the Project.

1. CONDITION OF PREMISES

1.1 Contractor has evaluated and satisfied itself as to the conditions and limitations under which the Work is to be performed including, without limitation (1) the location, condition, layout and physical conditions of the Project site and surrounding area, (2) generally prevailing climatic conditions, (3) availability and cost of materials, tools, and equipment, (4) geotechnical data, soil, and subsurface conditions, (5) parking, traffic, and logistics, and (6) other similar issues. Contractor shall not be entitled to any adjustment in the Contract Time or Contract Sum in connection with its failure to comply with the requirements of, or on account of the conditions of, this subsection.

2. INDEMNITY PROVISIONS

2.1 To the extent permitted by law, the Contractor shall indemnify and hold harmless TOWN and its officers, trustees, directors, employees, agents, consultants, and contractors ("TOWN Parties") from and against any and all liability, losses, damages, claims, causes of action, suits of any nature (including suits by TOWN against the Contractor), costs, and expenses, including reasonable attorneys' fees and consultants' fees, resulting from or arising out of the Contractor's or its agent's, and/or subcontractor's: (i) errors, acts, or omissions in the furnishing of goods, materials or services or performing Work under the Contract or any subcontract; (ii) any breaches of the Contract or any subcontract; or (iii) activities or omissions, negligent or otherwise, on the Owner's property. This indemnity provision covers and includes, without limitation, fines and penalties for violations of federal, state or local laws or regulations; personal injury, wrongful death or property damage claims; breach of contract claims; indemnity claims; and other damages, losses and claims of any kind.

2.2 While on TOWN's property and in its performance of this Contract, the Contractor shall not transport, dispose of or release any hazardous substance, material or waste, except as necessary in performance of its Work under this Contract. The Contractor shall comply with all federal, state and local laws, rules, regulations and ordinances controlling air, water, noise, solid wastes and other pollution, and relating to the storage, transport, release or disposal of hazardous materials, substances or waste.

2.3 Regardless of acquiescence by TOWN, the Contractor shall indemnify, defend, and hold the TOWN Parties harmless from all costs, liabilities, fines or penalties, including attorney's fees, resulting from the Contractor's violation of Section 2.2 and reimburse the Owner for all costs and expenses incurred by the Owner in eliminating or remedying such violations. The Contractor also agrees to indemnify and hold harmless the TOWN Parties from any and all costs, expenses, attorney's fees and all penalties or civil judgments obtained against any of the TOWN Parties as a result of the Contractor's use or release of any hazardous substance or waste onto the ground, or into the water or air from or upon the TOWN's premises.

2.4 The Contractor agrees to defend and save the TOWN Parties harmless from liability of any nature or kind, for use of any copyright, composition, secret process, patented or unpatented invention, goods, materials and/or services or appliances furnished or used in the performance of the Contract, or which the Contractor is not the patentee, assignee, or licensee, to the same extent as provided in the above paragraph.

2.5 The Contractor agrees to waive any and all statutes of limitations and statutes of repose applicable to any controversy or dispute arising out of the preceding Sections (2.1, 2.2, 2.3 and 2.4) and the Contractor further agrees that it will not raise or plead a statute of limitations or statute of repose defense against the TOWN Parties in any action arising out of the Contractor's failure to comply with the preceding Sections.

2.6 Nothing herein shall limit Contractor's other indemnification obligations as stated in the other Contract Documents.

3. PERMITS, LICENSES AND REGULATIONS

3.1 The Contractor shall fully comply with all local, state and federal building and fire codes, ordinances, laws and regulations, including without limitation all applicable sections of the Occupational Safety and Health Act (OSHA), the Virginia Uniform Statewide Building Code and Chapter 11 of Title 54.1 of the Code of Virginia (1950), and obtain all required licenses and permits and pay all charges and expenses connected therewith. Contractor will be responsible for securing all necessary licenses, permits and permission from the Town of Vinton or Roanoke County and all other federal, state or local government bodies in connection with the Project.

3.2 The Contractor shall be responsible for arranging all inspections by federal, state and local authorities for compliance with all statutory requirements, ordinances and regulations.

4. OWNER AND ARCHITECT

4.1 TOWN's Authorized Representative is Mr. Jamie Hurt, Capital Projects Manager. Mr. Hurt has the sole responsibility and authority for negotiating, placing, and when necessary modifying each and every Invitation to Bid, Contract, Change Order, Change Directive, Modification, purchase order, or other award issued by TOWN with respect to this Project. Any contracts or contract modifications contrary to this provision shall be void and TOWN shall not be bound thereby. Mr. Hurt shall be the only agent of Owner with the authority to extend the Contract Time or increase the Contract Sum; provided, that any such changes will only be effective if made by a prior, written amendment to this Contract. No other TOWN officer, agent or employee may extend the Contract Time or increase the Contract Sum. The Owner's Authorized Representative may be changed at any time upon written notice to Contractor. The Owner's Authorized Representative also may be referred to herein as the Contract Administrator.

4.2 Nothing in the Contract Documents shall alter the contractual relationship between the Architect and the Owner.

4.3 All written communications on the Project shall be directed to and include the Owner and all significant issues with respect to the Work and/or this Contract shall be communicated by Contractor directly to Owner in writing. Contractor shall copy the Architect on all such communications.

4.4 The Architect shall act as TOWN's representative during the Project. The Architect shall decide questions, which may arise as to quality and acceptability of materials furnished and Work performed.

The Architect shall interpret the intent of the Contract Documents in a fair and unbiased manner. The Architect will make visits to the site and determine if the Work is proceeding in accordance with the Contract Documents.

4.5 The Contractor will be held strictly to the intent of the Contract Documents in regard to the quality of materials, workmanship and execution of the Work.

4.6 The Architect will not be responsible for the construction means, controls, techniques, sequences, procedures, or construction safety.

5. CONTRACT DOCUMENTS; ORDER OF PRECEDENCE; DRAWINGS AND SPECIFICATIONS

5.1 The terms “Contract” and “Contract Documents” shall mean and include: (i) the Procurement Documents (contained at Section 00 0101 through Section 00 5000), including any subsequently issued Addenda to the Procurement Documents (collectively, the “ITB”); (ii) the completed and signed Bid Form and Bid Bond; (iii) the AIA Document A101-2017 (“Agreement”); (iv) the Owner’s General Conditions; (v) AIA Document A201-2017, General Conditions of the Contract for Construction (“AIA General Conditions”), as amended by the Supplementary Conditions (Section 00 7300); (vi) the Drawings (listed in Section 00 0115) and Specifications (Division 01 through Division 46) prepared by Hughes Associates Architects & Engineers (“Architect”) and included with the ITB; (vii) the Performance and Payment Bonds; (viii) any Change Orders or Change Directives; and (ix) any Modifications to the Contract. Anything called for by one of the Contract Documents and not called for by the others shall be of like effect as if required or called for by all Contract Documents. To the extent practicable, the terms and conditions of the Contract Documents will be read consistently with each other. In the case of conflict between the terms and conditions of the Contract Documents, the Order of Precedence of the Contract Documents shall be as follows: (i) the Owner’s General Conditions; (ii) the AIA General Conditions as amended by the Supplementary Conditions; (iii) the Drawings and Specifications; (iv) the Agreement, including any Modifications, Change Orders or Change Directives; (v) the ITB; (vi) the completed and signed Bid Form; and (vii) the Bonds.

5.2 The general character and scope of the Work are illustrated by the Drawings and Specifications. The Contractor shall verify that all drawings and plans accurately reflect actual conditions. If the Contractor deems additional detail or information to be needed, s/he will be responsible for obtaining such detail or information. The Contractor shall carry out the Work in accordance with the Drawings and Specifications and any additional detail drawings and instructions.

5.3 Contractor acknowledges that prior to execution of the Contract, it has met with the Owner and Architect to review the design for the Work and to identify, address and resolve ambiguities, conflicts, issues and questions, if any, regarding the intended nature and scope of the Work. The description of the Work in further detail by the Architect or the Owner subsequent to the execution of this Contract, shall entitle the Contractor to an increase in the Contract Sum or an extension of the Contract Time, only to the extent that such later description constitutes a “Material Change” in the Work, which is defined as any one of the following: (i) work of a materially different nature, character, scope or quality (other than refinement), than that set forth in and or reasonably inferable from the Contract Documents listed in the Contract and/or identified to Contractor in the meetings and discussions involving the Contractor and Owner and/or Architect prior to the execution of this Contract, as reflected in the meeting minutes or reports provided to or prepared in connection with such meeting; or (ii) a later description of the Work which involves work expressly excluded from the Contract Sum as set forth in the Contract Documents; or (iii) additional work that is required because of a change in applicable laws, codes or regulations

enacted after the execution of this Contract (except those scheduled to go into effect subsequent to the execution of the Contract about which the Contractor has knowledge). The Contractor shall evaluate and assess the Drawings, Specifications and other descriptions of the Work prepared by the Architect as and when they are issued by the Architect and shall notify the Owner and Architect in writing, within fourteen (14) days of the receipt of the applicable design document if the Contractor believes that such design document includes a Material Change. As promptly as possible thereafter, the Contractor shall also identify to the Owner, in writing, the amount of the increase in the Contract Sum and/or Contract Time that the Contractor claims is needed as a result of the alleged Material Change and shall meet with and assist the Owner and Architect in evaluating the situation.

5.4 The apparent silence of these Specifications and any supplemental specifications as to any detail or the omission from the Specifications of a detailed description concerning any point shall be regarded as meaning that only the best commercial practices of the trade are to prevail and correct type, size and design are to be used. All interpretations of these Specifications shall be made on the basis of this statement.

5.5 The Contractor may be furnished additional instructions and detail drawings, by the Architect, as necessary to carry out the Work required by the Contract Documents. The additional drawings and instruction thus supplied will become a part of the Contract Documents. The Contractor shall carry out the Work in accordance with the additional detail drawings and instructions.

5.6 The Contract Documents shall be interpreted and construed to call for finished code-compliant work, tested and ready for operation or use by Owner and its employees, agents, invitees, and licensees.

5.7 The entire Work provided for in the Specifications and other Contract Documents is to be accomplished even though every item and minor detail for the proper installation and successful operation of the entire Project may not be mentioned in the Specifications or shown on the Contract Documents. All work not specifically described in the Contract Documents, yet required to produce a fully functional and properly operating Project, shall be provided by Contractor even though every item or minor detail for the proper installation or successful operation of the entire Work is not mentioned in the Contract Documents.

5.8 In case of conflict in the Contract Documents, the Architect shall interpret or construe the Contract Documents so as to assure the most substantial and complete performance of the Work.

5.9 All Contract Documents prepared and/or furnished by Contractor or Owner shall be the exclusive property of Owner and shall not be used for any other project(s).

6. PERSONNEL

6.1 The Contractor shall assign to the Work and the Project a qualified project manager who shall be subject to the reasonable approval of the Owner and Architect. Once appointed and approved, no such individual shall be replaced on the Project or Work without the prior consent of the Owner's Authorized Representative. The Contractor shall notify the Owner, in writing, of any proposed changes in the staffing for the Project or Work, including the reason(s) for proposing such change.

6.2 Only reliable workers shall be employed as laborers. Should any person employed on the Project by the Contractor appear to the Owner to be incompetent or disorderly, such person shall be removed from the Project immediately upon proper notice to the Contractor from the Owner. Such person shall not again be employed for this Contract.

6.3 Contractor shall be responsible for the errors, acts, and omissions of its employees and agents, and the employees and agents of any subcontractors, while on TOWN premises or performing any work associated with the contract. Contractor's personnel will be required to comply with all rules and regulations governing the access to and use of TOWN's premises. Contractor shall provide an adequate staff of experienced personnel, capable of and devoted to the successful accomplishment of the work to be performed under the contract. It shall be Contractor's responsibility to see that its employees use any equipment, materials and supplies in a safe and orderly manner and in accordance with the manufacturer's instructions and guidelines and within all local, state and federal regulations. It shall be Contractor's responsibility to ensure its employees and its subcontractor's employees know and obey all OSHA, VOSA, EPA and other regulatory requirements. Compliance with all regulatory requirements is the sole responsibility of Contractor and/or subcontractors. The safety of Contractor's and subcontractor's employees is the exclusive responsibility of Contractor and subcontractors. TOWN reserves the right to request the removal of any of Contractor's employees or agents or any of subcontractor's employees or agents from the construction site at any time for reasonable cause. Contractor or the subcontractor shall have such employee leave the premises upon receipt of such request.

7. PERFORMANCE

7.1 The Contractor shall be responsible for directing the Work with a high level of competence and efficiency. The Contractor is solely responsible to the Owner for ensuring that the finished Work complies with the Contract Documents. The Contractor shall be solely responsible for health and safety precautions and programs for workers, patrons, pedestrians and others in connection with the Work. No inspection by, knowledge on the part of, or acquiescence by the Owner, Architect, or any other person or entity whatsoever shall relieve the Contractor from its sole responsibility for compliance with the requirements of the Contract or responsibility for health and safety programs and precautions for patrons, pedestrians, workers and others.

7.2 Prior to beginning Work the Contractor shall submit a construction progress schedule showing the order in which the Contractor proposes to carry out the Work, including dates at which the Contractor will start the various parts of the Work and estimated date of completion of each part. The schedule must provide for Final Completion no later than the date required in the ITB or stated in the Agreement. The schedule is subject to the TOWN's review and approval. In the event that the Contractor should ever determine during the course of the Project that its prosecution of the Work has fallen behind the current approved schedule, then it must prepare a recovery schedule to permit completion of the Project within the Contract Time. The Contractor shall devote all required labor, materials, and equipment to comply with the recovery schedule, including, if necessary, the employment of additional Subcontractors and/or manpower and the scheduling of additional shifts, overtime, and weekend Work, all at the Contractor's sole expense. TIME IS OF THE ESSENCE.

7.3 Contractor shall also submit a schedule of payments anticipated to be earned during course of Work.

7.4 The Contractor is required to schedule and perform all Work on the Project in a manner that minimizes disruption of operations in downtown Vinton.

7.5 The Contractor shall be responsible for determining the location of underground utilities. TOWN does not make any representation with regard to their location. The Contractor assumes full responsibility for the location of all underground utilities.

7.6 The intent of the Drawings and Specifications is that the Contractor shall furnish all labor, materials, tools, equipment, and transportation necessary for the proper execution of the Work in accordance with the Contract Documents and all incidental work necessary to complete the Project in an acceptable manner, ready for use, occupancy or operation by the Owner. In case of conflict between Drawings and Specifications, the most stringent shall govern. Figure dimensions on Drawings shall govern over scale dimensions, and detailed Drawings shall govern over general Drawings. Any discrepancies found between the Drawings and Specifications and site conditions or any inconsistencies or ambiguities in the Drawings or Specifications shall be immediately reported to the Architect, in writing, who shall promptly correct such inconsistencies or ambiguities in writing. Work done by the Contractor after his discovery of such discrepancies, inconsistencies, or ambiguities shall be done at the Contractor's risk.

7.7 It is understood that, except as otherwise specifically stated in the Contract Documents, the Contractor shall provide and pay for all materials, labor, tools, equipment, water, light, power, transportation, supervision, temporary construction of any nature, excluding temporary electrical power and metering and water supply which will be provided by Owner under the Specifications, and all other services and facilities of any nature whatsoever necessary to execute, complete, and deliver the Work within the specified time.

7.8 All materials and equipment used in the construction of the Project shall be subject to adequate inspection and testing in accordance with generally accepted standards, as required and defined in the Contract Documents.

7.9 The Contractor shall provide at its expense the testing and inspection services required by the Contract Documents.

7.10 If the Contract Documents, laws, ordinances, rules, regulations, or orders of any public authority having jurisdiction require any Work to specifically be inspected, tested, or approved by someone other than the Contractor, the Contractor will give the Architect timely notice of readiness.

7.11 Inspections, tests, or approvals by the Architect or others shall not relieve the Contractor from his obligations to perform the Work in accordance with the requirements of the Contract Documents.

7.12 If any Work is covered contrary to the written instructions of the Architect, it must, if requested by the Architect, be uncovered for observation and replaced at the Contractor's expense.

7.13 If the Architect considers it necessary or advisable that covered Work be inspected or tested by others, the Contractor, at the Architect's request, will uncover, expose, or otherwise make available for observation, inspection, or testing as the Architect may require, that portion of the Work in question, furnishing all necessary labor, materials, tools, and equipment. If it is found that such Work is defective, the Contractor will bear all the expenses of such uncovering, exposure, observation, inspection, and testing and of satisfactory reconstruction. If, however, such Work is not found to be defective, the Contractor will be allowed an increase in the Contract Price or an extension of the Contract Time, or both, directly attributable to such uncovering, exposure, observation, inspection, testing, and reconstruction and an appropriate Change Order shall be issued.

7.14 The Contractor will be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. The Contractor will take all necessary precautions for the safety of, and will protect the persons who may be affected thereby, protect all the Work and all materials or equipment to be incorporated therein, whether in storage on or off the site, and

protect other property at the site adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, and utilities not designated for removal, relocation, or replacement in the course of construction.

7.15 Contractor shall remove and transport any removed asphalt and other construction waste or debris to a Contractor-provided dumpsite upon removal. No removed asphalt or other construction waste or debris shall be stock piled on TOWN's premises.

7.16 After the completion of the Project, all property including but not limited to, roads, drives, paths, parking lots, easements and lawns damaged by the Contractor's actions shall be restored to the same condition or better at the time of the Notice to Proceed. Prior to any construction activities, it is the Contractor's responsibility to document any existing damage or substandard conditions.

7.17 The Contractor shall provide adequate protection for all structures at the site. Any damage to TOWN owned facilities by the Contractor shall be repaired or replaced at the Contractor's expense and to the complete satisfaction of TOWN.

7.18 The Contractor will provide and post "No Parking" signs and directional/detour signs in appropriate locations as approved by TOWN's Authorized Representative.

7.19 Contractor shall clean the premises daily, including disposal of all waste. Contractor shall maintain the parking lots and sidewalks around the Project site in a reasonably clean condition and shall comply with all erosion control, stormwater runoff and dust control ordinances and regulations. Contractor shall remove all spillage arising from performance of the Work from such areas and shall establish a regular maintenance program to minimize accumulation of dirt and dust upon such areas.

7.20 On completion of the Work covered by any of the sections of this Project, the Contractor for said section shall clean up the entire premises occupied by his operations, and this area shall be left neat and clean of trash, debris, piles of earth, waste materials or equipment. All surplus materials and equipment, trash, debris, and other foreign matter shall be disposed of as directed by the Architect or Owner. The entire project or sections thereof shall be made ready for the Owner's use, and the Contractor shall assist as may be necessary in placing any equipment furnished under the contract in proper operating condition.

7.21 Materials removed from the site shall be legally disposed of by the Contractor.

8. SUBCONTRACTORS

8.1 The Contractor shall not be released from any part of its liabilities or obligations under the Contract should any Subcontractor fail to perform in a satisfactory manner the work undertaken by him.

8.2 The Contractor shall be responsible to the Owner for acts and omissions of the Contractor's employees, and of all Subcontractors and their employees. The Contractor shall also be responsible for the coordination of the work of the Subcontractors and suppliers.

8.3 Before any portion of the Work shall be subcontracted, the Contractor shall furnish TOWN the names, qualifications and experience of their proposed subcontractor. TOWN must be afforded the right to refuse any subcontractor that the Contractor has selected. The Contractor shall remain fully liable and responsible for the work to be done by its subcontractor(s) and shall assure compliance with all requirements of the Contract.

8.4 The Contractor shall not change any Subcontractor, person or entity previously approved if TOWNF makes reasonable objection to such change.

8.5 If TOWN accepts, or fails to object to, any proposed Subcontractor, person or entity proposed by Contractor, such acceptance or failure to object shall not constitute a guarantee of such Subcontractor's, person's, or entity's performance by TOWN, nor shall it alleviate Contractor of responsibility for Subcontractor's actions in performance of the Work.

9. SUBMITTALS AND SHOP DRAWINGS

9.1 Architect's and/or Owner's approval of Submittals and/or Shop Drawings shall not be construed as permitting any departure from Contract requirements, authorizing any increase in the Contract Sum or extension of the Contract Time, or relieving the Contractor of the responsibility for any error in details, dimensions or otherwise that may exist or for any deviation from the requirements of the Contract Documents in the performance of the Work. Submittals and Shop Drawings include: (i) all drawings, diagrams, illustrations, brochures, schedules, shop drawings, documents, samples, and other data required by the Contract Documents which are prepared by or for the Contractor, Subcontractor, or supplier, and submitted by the Contractor to illustrate the material, equipment or layouts, or some other portion of the Work; (ii) fabrication, erection and setting drawings, manufacturers' standard drawings, schedules, descriptive literature, catalogs, brochures, performance and test results or data, and all other descriptive data pertaining to the materials and equipment as required to demonstrate compliance with the Contract requirements; and (iii) other materials related to or concerning Work identified in the Drawings and Specifications.

10. CHANGES IN THE WORK

10.1 A Change Order shall be based upon agreement among the Owner and Contractor; a Change Directive may be issued by the Owner and may or may not be agreed to by the Contractor; an order for a minor change in the Work may be issued by the Architect alone. Any change in the Work which will result in an increase or decrease in the Contract Sum or change in the Contract Time must be approved in writing by the Owner's Authorized Representative.

10.2 Requests for Change Orders shall be evaluated by the Architect; provided, however, the Owner shall make the final determination on all Change Orders and Change Directives. Contractor shall comply with any Change Directives issued by the Owner.

10.3 The Owner may at any time, as the need arises, order changes within the scope of the Work without invalidating the Agreement. If such changes increase or decrease the amount due under the Contract Documents, or in the time required for performance of the Work, an equitable adjustment shall be authorized by Change Order.

10.4 No Change Order, Change Directive, or other Modification to any of the Contract Documents shall waive, modify, release or invalidate any condition or provision of the Contract or obligation of Contractor unless such waiver, modification, release or invalidation is expressly stated in the written Change Order, Change Directive, or other document modifying the Contract Documents.

10.5 No change increasing the Contract Sum or extending the Contract Time will be made without the prior, written approval of the Owner's Authorized Representative.

11. STOP WORK ORDER

11.1 Should the Contractor fail to follow the Contract Documents or perform the Work, the Contract Administrator may stop the Work at any time. The Contractor shall suspend work upon receiving a written "Stop Work Order" from the Contract Administrator. After the Contractor has received a written "Stop Work Order," the Work and Contract Time shall not again be started until a written "Resume Work Order" is received by the Contractor.

12. INTENTIONALLY BLANK

13. PAYMENT PROVISIONS

13.1 This is a fixed price Contract. No increase in the Contract Price shall be made except by a written amendment executed by Owner's Authorized Representative and Contractor. The limitation on increases for fixed price contracts contained in Virginia Code § 2.2-4309 applies to this Contract.

13.2 The Contractor represents and warrants that he has visited the site and become familiar with and is satisfied as to the general location and site conditions that may affect cost, progress, performance, furnishing, and completion of the Project. The Contractor represents and warrants that he is familiar with and will comply with all federal, state, and local laws and regulations that may affect cost, progress, performance, furnishing, and completion of the Project. The Contractor shall bear all costs resulting from the amount or character of the work being different, or because the nature of the premises on which the work is done is different from what was expected or on account of the weather, unknown conditions, or other similar or unexpected causes.

13.3 To insure proper performance of the Contract, TOWN shall retain five percent (5%) of each payment until final acceptance of all work covered by the Contract. The Contractor may request that this retainage be paid into an escrow account pursuant to Section 2.2-4334 of the Code of Virginia (1950), as amended.

13.4 Requests for progress payments will be submitted to the Architect for review. Owner will make any Architect-approved progress payments, less 5% retainage, to the Contractor approximately 30 days after the Contractor's Application for Payment has been approved by the Architect.

13.5 Each Application for Payment shall be based on the most recent schedule of values submitted by the Contractor in accordance with the Contract Documents. The schedule of values shall allocate the entire Contract Sum among the various portions of the Work. The schedule of values shall be prepared in such form and supported by such data to substantiate its accuracy as the Architect or Owner may require. This schedule, unless objected to by the Architect or Owner, shall be used as a basis for reviewing the Contractor's Applications for Payment and may not be revised without the prior written approval of the Owner and Architect. Applications for Payment also shall show the percentage of completion of each portion of the Work as of the end of the period covered by the Application for Payment.

13.6 In taking action on the Contractor's Applications for Payment, the Architect shall be entitled to rely on the accuracy and completeness of the information furnished by the Contractor and shall not be deemed to represent that the Architect has made a detailed examination, audit or arithmetic verification of the documentation submitted or other supporting data; that the Architect has made exhaustive or continuous on-site inspections; or that the Architect has made examinations to ascertain how or for what purposes the Contractor has used amounts previously paid on account of the Contractor.

13.7 The Architect will perform no more than one (1) inspection to determine whether the Work or a designated portion thereof has attained Substantial Completion in accordance with the Contract Documents. Owner is entitled to reimbursement from Contractor for amounts paid to the Architect for any additional inspections.

13.8 The Architect will perform no more than one (1) inspection to determine whether the Work or designated portion thereof has attained Final Completion in accordance with the Contract Documents. Owner is entitled to reimbursement from Contractor for amounts paid to the Architect for any additional inspections.

14. PAYMENTS TO SUBCONTRACTORS

14.1 Contractor shall be liable for the entire amount owed to any Subcontractor with which it subcontracts; provided, Contractor shall not be liable for amounts otherwise reducible due to the Subcontractor's noncompliance with the terms of its subcontract. In the event that Contractor withholds all or a part of the amount promised to the Subcontractor under its subcontract, Contractor shall notify the Subcontractor, in writing, of its intention to withhold all or a part of the payment with the reason for nonpayment. Payment by the Owner to Contractor shall not be a condition precedent to payment to any lower-tier Subcontractor. Further, Contractor shall take one of the two following actions within seven (7) consecutive, calendar days after receiving amounts paid to the Contractor by the Owner for work performed by any Subcontractor under this Contract:

- (i) Pay the Subcontractor for the proportionate share of the total payment received from TOWN attributable to the work performed by the Subcontractor under that subcontract; or
- (ii) Notify TOWN and Subcontractor, in writing, of the Contractor's intention to withhold all or a part of the Subcontractor's payment and explain the reason for nonpayment.

14.2 Contractor shall pay interest at the rate of one (1) percent per month to the Subcontractor on all amounts owed by Contractor that remain unpaid after seven (7) consecutive, calendar days following receipt by Contractor of payment from TOWN for work performed by the Subcontractor under that subcontract, except for amounts withheld as allowed in subsection (ii) above.

14.3 Contractor shall insert in each of its subcontracts a provision requiring each Subcontractor to include or otherwise be subject to the same payment and interest requirements with respect to each lower-tier Subcontractor.

14.4 Contractor's obligation to pay an interest charge to a Subcontractor pursuant to this Section shall not be construed to be an obligation of the Owner. This Contract may not be modified for the purpose of providing reimbursement for such interest charge. A cost reimbursement claim may not include any amount for reimbursement for such interest charge.

14.5 Contractor shall indemnify, defend and hold the TOWN Parties harmless for any claims, demands, damages, losses and expenses, including, without limitation, reasonable attorneys' fees, arising out of or resulting from the Contractor failure to pay as provided in the Contract Documents and/or required by applicable law, any Subcontractor or any other person with whom Contractor or any subcontractor has contracted or who is employed directly or indirectly by Contractor or subcontractor provided only that Owner has paid Contractor such amounts as are then actually due under this Contract for Work actually and properly performed as of the date when the claim was asserted. In the event of such claims, Owner may, after providing written notice to the Contractor, withhold from any progress and/or final payment the unpaid sum of money deemed sufficient to pay all lawful claims and associated costs in connection with the Contract.

14.6 Contractor agrees that neither payment, final or otherwise, partial or entire occupancy of the premises by TOWN, nor acceptance of the Work under this Contract shall be an acceptance of any Work which does not conform to the requirements of the Contract, nor shall such acceptance, occupancy, or payment relieve Contractor of any responsibility for any errors or omissions in connection with the Project, operate as a waiver of any rights under this Contract or of any cause of action arising out of the performance of this Contract, or operate to release Contractor from any obligation under the Contract.

15. GUARANTEES AND WARRANTIES OF WORK

15.1 Contractor warrants that, unless otherwise specified, all material and equipment incorporated in the Work under the Contract shall be new, in first class condition, and in strict accordance with the Contract Documents. Contractor further warrants that all workmanship and its oversight of its Subcontractors shall be of the highest quality found in the construction trade or industry and in strict accordance with the Contract Documents and that all Work shall be performed by persons highly qualified and skilled in their respective trades. In the acceptance or rejection of Work, no allowance will be made for lack of skill on the part of workers. Poor or inferior workmanship (as determined by the Owner, Architect, or other inspecting authorities) shall be removed and replaced to conform to the highest quality standards of the trades concerned, or otherwise corrected to the satisfaction of the Owner, or other inspecting authority, all at the Contractor's sole expense.

15.2 The Contractor warrants and guarantees the Work against defects or deficiencies in all material and workmanship and shall maintain, repair or replace, at its expense, any Work, material or part that is found by the Owner or the Architect to be defective, within a period of one (1) year from the date of final acceptance of the Project.

15.3 The Contractor shall review all materials and methods of construction specified or indicated in the Contract Documents, including those recommended by manufacturers, and shall advise the Owner (1) if the specified or indicated material or method deviates from good trade or industry practice, (2) if employing such material or method will violate any warranties, or (3) if the Contractor has any other objection to such material or method. In such event, Contractor shall propose alternative materials or methods for those which violate the warranties or to which the Contractor takes objection, submitting the names of substitute products and relevant data on which he can issue the specified warranty. Should the Contractor fail to notify the Owner of its objections prior to the execution of the Contract, it will be deemed to have agreed to warrant all work specified or shown.

15.4 Work not conforming to these warranties shall be considered defective.

15.5 These warranties and guarantees of material and workmanship are separate and independent from and in addition to any of the Contractor's other guarantees or obligations that arise out of this Contract or any applicable law. In addition to the foregoing warranties and stipulations, the Contractor shall comply with all other warranties and guarantees noted in any portion of the Contract Documents, the more stringent requirement governing.

15.6 If, within any warranty or guarantee period, defects are noticed by the Owner, which require repairs or changes in connection with the guaranteed Work, those repairs or changes being in the opinion of the Owner rendered necessary as the result of the use of material, equipment, or workmanship which is defective, inferior, or not in accordance with the terms of the Contract, the Contractor shall, promptly upon receipt of notice from the Owner, and without any expense to the Owner:

- a. Place in satisfactory condition in every particular all of such guaranteed work and correct all defects therein; and
- b. Make good all damage to the structure, contents of the structure, site and equipment which in the opinion of the Owner is the result of the use of material, equipment, or workmanship which are inferior, defective, or not in accordance with the terms of the Contract; and
- c. Make good any work or material or the equipment and contents of structures or the site disturbed in fulfilling any such guarantee.

15.7 In any case where in fulfilling the requirements of the Contract or any guarantee embraced in or required thereby, the Contractor disturbs any Work guaranteed under the Contract, it shall restore such Work to a condition satisfactory to the Owner and guarantee such restored Work to the same extent as it was guaranteed under such other Contract.

15.8 If the Contractor, after notice, fails to proceed promptly to comply with the terms of the guarantee, the Owner may have the defects corrected by the Owner or other contractor and the Contractor shall be liable for all costs and expenses incurred in doing so.

15.9 Nothing contained in this Section shall be construed to shorten any applicable statutes of limitation with respect to any obligations which the Contractor has under the Contract Documents or the law of Virginia, including liability for defective Work.

15.10 All guarantees or warranties of equipment, systems or materials furnished to Contractor or Subcontractors by any manufacturer or supplier shall be deemed to run to the benefit of Owner and are (and shall be) assigned to Owner. These warranties are in addition to, not in lieu of, all other warranties and guarantees contained in or required by the Contract Documents.

16. RECORDS AND INSPECTION

16.1 The Contractor shall maintain full and accurate records with respect to all matters covered under this Contract, including, without limitation, accounting records, written policies and procedures, time records, telephone records, and any other supporting evidence used to memorialize, reflect, and substantiate charges or fees related to this Contract. The Contractor's records shall be open to inspection and subject to audit and/or reproduction, during normal working hours, by TOWN and its employees, agents or authorized representatives after giving at least three (3) days' notice to Contractor by TOWN. TOWN shall have access to such records from the effective date of this Contract, for the duration of the Contract, and for five (5) years after the date of final payment by TOWN to the Contractor pursuant to this Contract or any renewal or extension of this Contract. TOWN's employees, agents or authorized representatives shall have access to the Contractor's facilities, shall have access to all necessary records, and shall be provided adequate and appropriate work space, in order to conduct audits.

17. CORRECTION OF WORK

17.1 The Contractor shall promptly remove from the premises all Work rejected by the Architect for failure to comply with the Contract Documents, whether incorporated in the construction or not, and the Contractor shall promptly replace and re-execute the Work in accordance with the Contract Documents and without expense to the Owner and shall bear the expense of making good all Work of other Contractors destroyed or damaged by such removal or replacement.

17.2 All removal and replacement Work shall be done at the Contractor's expense. If the Contractor does not take action to remove such rejected Work within ten (10) days after receipt of Written Notice, the Owner may remove such Work and store the materials at the expense of the Contractor.

18. ACCEPTANCE OF FINAL PAYMENT AS RELEASE

18.1 The acceptance by the Contractor of final payment shall be and shall operate as a release to the Owner of all claims and liability to the Contractor other than claims in stated amounts as may be specifically excepted by the Contractor for all things done or furnished in connection with this Work and for every act and neglect of the Owner and others relating to or arising out of this Work. Any payment, however, final or otherwise shall not release the Contractor or his sureties from any obligations under the Contract Documents or the Performance Bond and Payment Bonds.

19. CONTRACT DISPUTES

19.1 Contractual claims by the Contractor, whether for money or other relief, shall be submitted by the Contractor in writing to the Owner no later than sixty (60) days after final payment. However, written notice of the Contractor's intention to file such a claim must be given to the Owner's Authorized Representative within ten (10) calendar days of the occurrence or beginning of the work upon which the claim is based. Such notice shall state that it is a "notice of intent to file a claim" and include a written statement describing the act or omission of Owner or its agents that allegedly caused or may cause damage to Contractor and the nature of the claimed damage. Failure to submit such notice of intent within the time and in the manner required shall be a conclusive waiver of the claim by Contractor. Contractor is not prevented from submitting claims during the pendency of the Work. Proposed or requested Change Orders, demands for money compensation or other relief, and correspondence and emails to Owner or its representatives, which do not comply with the requirements of this Section, shall not be considered claims under this Section. Contractor may not institute legal action prior to receipt of Owner's decision on the claim unless the Owner fails to render such decision within ninety (90) days. The decision of the Owner, when signed by its Authorized Representative, shall be final and conclusive unless the Contractor within six (6) months of the date of the final decision on a claim initiates legal action as provided in Section 2.2-4364 of the Code of Virginia (1950), as amended. Failure of the Owner to render a decision within ninety (90) days shall not result in any other relief or penalty. The sole result of Owner's failure to render a decision within ninety (90) days shall be to extend to the Contractor the right to institute immediate legal action. No administrative appeals procedure (other than the mandatory procedure set forth above in this Section) pursuant to Section 2.2-4365 of the Code of Virginia (1950), as amended, has been established for contractual claims under this Contract. This provision supersedes any contrary provision in the AIA General Conditions requiring arbitration or any other non-voluntary alternate dispute resolution.

19.2 If a claim is made during prior to completion of the Work, Contractor shall proceed diligently with performance of the Contract and the Owner shall continue to payments in accordance with the Contract Documents, except for any amount in dispute.

20. OWNER'S RIGHT TO TERMINATE CONTRACT FOR CAUSE

20.1 If the Contractor is adjudged bankrupt, or makes a general assignment for the benefit of its creditors, or if a receiver is appointed on account of its insolvency, the Owner may immediately terminate the Contract. If the Contractor (i) refuses, or fails, to supply enough properly skilled workers or proper materials or make prompt payment to subcontractors or suppliers of material or labor; (ii) disregards applicable laws, ordinances or the written instructions of the Architect or Owner; or (ii) otherwise violates any provision of the Contract, the Owner may terminate the Contract, upon five (5) calendar days written

notice to the Contractor. The provisions of this Section 20.1 shall not limit TOWN's right to terminate the Contract under any other provision of the Contract Documents.

20.2 Notice of termination may be served upon the Contractor by mail or any other means at its last known places of business in Virginia or elsewhere, by delivery to any officer or employee wherever he or she may be found, or, if no such officer, employee or place of business is known or can be found by reasonable inquiry within three (3) business days, by posting the notice at the job site. Failure to accept or pick up registered or certified mail addressed to the last known address shall be deemed to be delivery.

20.3 Upon termination of the Contract, the Owner shall take possession of the premises and of all materials, tools and appliances thereon and finish the Work by whatever method it may deem expedient. In such case the Contractor shall not be entitled to receive any further payment. If the expense of finishing the Project, including compensation for additional managerial and administrative services shall exceed the unpaid balance of the Contract price, the Contractor shall pay the difference to the Owner, together with any other expenses of terminating the Contract and having it completed by others.

20.4 If it should be judicially determined that the Owner improperly terminated this Contract for cause, the termination shall be deemed to be a termination for the convenience of the Owner.

20.5 Termination of the Contract under this Section is without prejudice to any other right or remedy of the Owner.

21. TERMINATION BY OWNER FOR CONVENIENCE

21.1 Owner may terminate this Contract at any time without cause, in whole or in part, upon giving the Contractor notice of such termination. Upon such termination, the Contractor shall immediately cease work and remove from the Project site all of its labor forces and such of its materials as Owner elects not to purchase or to assume in the manner hereinafter provided. Upon such termination, the Contractor shall take such steps as Owner may require to assign to the Owner the Contractor's interest in all subcontracts and purchase orders designated by Owner. After all such steps have been taken to Owner's satisfaction, the Contractor shall receive as full compensation for termination and assignment the following:

- (a) All amounts then otherwise due under the terms of this Contract.
- (b) Amounts due for work performed subsequent to the latest Application for Payment through the date of termination.
- (c) Reasonable compensation for the actual cost of demobilization incurred by the Contractor as a direct result of such termination. The Contractor shall not be entitled to any compensation for lost profits or for any other type of compensation or damage other than those provided by the preceding sentence. Upon payment of the foregoing, Owner shall have no further obligations to Contractor of any nature.

21.2 In no event shall termination for convenience of the Owner terminate the obligation of the Contractor's Surety on its payment and performance bonds.

22. "ALL RISK" BUILDERS RISK INSURANCE

22.1 The Contractor shall provide "all risk" builders risk insurance in an amount equal to one hundred percent (100%) of the cost of the Work (i.e. construction costs, soft costs, and FF&E costs). The loss, if any, is to be made adjustable with and payable to the Owner, in accordance with its interests, as they may appear. The Owner, its officers, employees and its agents, shall be named as an additional insured in any policy of insurance issued. Written evidence of the insurance shall be filed with the Owner no later than

thirty (30) days following the award of the Contract. In the event of cancellation of this insurance, not less than thirty (30) days prior written notice must be sent to the Owner. A copy of the policy of insurance shall be given to the Owner upon demand. The Contractor is responsible for providing any desired coverage for Contractor's or Subcontractors' buildings, equipment, materials, tools or supplies that are on-site.

23. CONTRACTOR INSURANCE

23.1 Contractor shall maintain the following insurance with respect to the Work without interruption from commencement through Final Completion and at any time thereafter when Contractor enters the site to perform corrective Work, and during all additional periods specified in this Section:

- (a) Commercial general liability insurance on the current ISO CG 00 01 form or another occurrence form that provides substantially similar coverage (the "**CGL**") that, without limitation:
 - (i) has limits of not less than \$1,000,000 each occurrence, \$1,000,000 personal injury, and \$2,000,000 general aggregate;
 - (ii) covers claims for damages arising from bodily injury (including mental anguish), sickness, disease, or death of any person other than Contractor's employees, or arising from injury to or destruction of tangible property (including resultant loss of use);
 - (iii) includes coverage for premises operations, independent contractors, personal and advertising injury, products-completed operations, and liability assumed under an insured contract, including the tort liability of another assumed in a business contract;
 - (iv) includes Owner as a named insured (but not the first named insured), during the entire period when Work is performed under the Contract and, with respect to products-completed operations, continuing after Substantial Completion of the Work (or the earlier termination of the Contract) through to the expiration of the statute of repose applicable to the Work;
 - (v) includes the Owner and its members, directors, officers, shareholders, employees, affiliates, subsidiaries, agents and representative, as their interests may appear (collectively, and as adjusted from time to time, the "**Additional Insureds**") as additional insureds, via one or more endorsements (such as a combination of CG 20 10 10 01 and CG 20 37 10 01) that provides coverage for both ongoing and completed operations, does not limit coverage to vicarious liability, and is otherwise reasonably acceptable to Owner;
 - (vi) applies as primary and non-contributing insurance with respect to any other insurance or self-insurance program available to Owner or the Additional Insureds;
 - (vii) if the Additional Insureds are granted additional insured status via a "blanket" additional insured endorsement, does not restrict additional insured status to individuals or entities who have a written contract with the insured;
 - (viii) provides products-completed operations coverage for a period that continues after Substantial Completion of the Work (or the earlier termination of the Contract) through to the expiration of the statute of repose applicable to the Work, and includes the Additional Insureds as additional insureds under this coverage on a primary and noncontributing basis;
 - (ix) provides that any general aggregate limit applies separately to the Work on a "per project" basis;
 - (x) does not limit the scope of coverage for liability arising from "XCU" (explosion, collapse, or underground) hazards;
 - (xi) allows, but does not obligate, any Additional Insured to pay (if Contractor fails to do so) any amounts (including SIRs and deductibles) that are required to be paid in order for the insurer to provide defense or indemnity to an Additional Insured under the CGL;

- (xii) does not count the cost of defense towards the policy's limits; and
- (xiii) includes a standard ISO separation of insureds provision (including with respect to named insureds) or a substantially similar provision ensuring there is no exclusion or limitation of coverage with respect to claims between a named insured and an additional insured.

(b) Business auto insurance to cover liability arising out of the ownership, maintenance, or use of any motor vehicle used in connection with the Work (including owned, hired, and non-owned autos), with a limit of not less than \$1,000,000 each accident. This insurance must provide coverage for upset, overturn, and collision coverage related to pollution events (applying to the vehicle, trailer or other attachments to the vehicle and must extend to cargo/waste carried and to Subcontractors or others providing services to Contractor). Contractor shall cause Owner and the Additional Insureds to be included as additional insureds under this policy if the policy does not automatically grant them additional insured status under a standard "omnibus" clause. Contractor waives all rights against Owner and the Additional Insureds for recovery of damages to the extent those damages are covered under any business auto insurance (and, if applicable, commercial excess or umbrella liability insurance) covering Contractor. If Contractor transports hazardous material from the Project site with its own personnel, Contractor shall maintain a pollution liability coverage endorsement (CA 99 48) and a Motor Carrier Act (MCS-90) endorsement (and otherwise Contractor shall require all Subcontractors responsible for any such hauling to carry this coverage).

(c) Workers compensation and employers' liability insurance for all persons that perform Work for Contractor. The workers compensation insurance must fulfill all applicable statutory requirements. The employers' liability insurance must have limits of not less than \$1,000,000 each accident for bodily injury by accident, \$1,000,000 each employee for bodily injury by disease, and \$1,000,000 policy limit for bodily injury by disease. For any borrowed employees that perform Work (including operators of rented equipment, employees from a temporary employment agency, and employees of Contractor's affiliates), Contractor shall require the primary employer to provide an alternate employer endorsement showing Contractor in the schedule as the alternate employer. Contractor waives all rights against Owner and the other Additional Insureds for recovery of damages covered by any workers compensation or employers' liability insurance (and, if applicable, commercial excess or umbrella liability insurance) covering Contractor, and shall obtain an endorsement effecting this waiver.

(d) Commercial excess or umbrella liability insurance with respect to Contractor's CGL, business auto, and employers' liability insurance, with a limit of not less than \$5,000,000 each occurrence. This insurance must include a "broad as primary endorsement" or a "follow form endorsement", (ii) include Owner as a named insured, (iii) include the Additional Insureds as additional insureds with respect to Contractor's CGL and business auto insurance, (iv) provide that the aggregate limits of liability apply separately with respect to the Work, and (v) be primary and non-contributing insurance with respect to any other insurance or self-insurance program available to Owner or the Additional Insureds. Contractor may satisfy the aggregate primary/excess minimum limits specified in this Exhibit through a combination of primary and excess layers, as long as the requirements of this Exhibit are otherwise satisfied and coverage specified herein with respect to the Owner and the Additional Insureds is not limited, reduced or otherwise adversely affected by such combination.

(e) Property insurance covering the full replacement value of job trailers, machinery, tools, equipment (including cranes), and property of a similar nature owned, leased, or borrowed by

Contractor and not incorporated into the completed construction of the Work, and Contractor hereby waives (and shall require any third-party owners of this property, including lessors of equipment and any persons from which Contractor borrows items, to waive) all claims against Owner and the Additional Insureds for loss or damage to these items, regardless of the cause. With respect to any cranes used in connection with the Work, Contractor shall obtain, and provide Owner with evidence of prior to commencing any affected Work, upset coverage, boom coverage, and riggers liability coverage with limits and coverages acceptable to Owner.

23.2 Before permitting any Subcontractor to commence Work, Contractor shall by written agreement require the Subcontractor to carry the insurance and make the waivers required of Contractor in Section 23.1 above and shall impose this requirement on all Subcontractors with respect to their Sub-subcontractors. In addition to the foregoing, all Subcontractor insurance shall conform to the following requirements:

- (a) For purposes of Subcontractors' insurance, Owner shall be an Additional Insured (and must be included as an additional insured under Subcontractors' CGL on a primary and noncontributing basis);
- (b) With respect to business auto insurance, Contractor shall require any Subcontractors (including any haulers) that transport hazardous material from the Project site to maintain a pollution liability coverage endorsement (CA 99 48) and a Motor Carrier Act (MCS-90) endorsement.
- (c) With respect to commercial excess or umbrella liability insurance, Contractor shall require Subcontractors to carry a limit of not less than \$3,000,000 each occurrence for Major Subcontractors and \$1,000,000 each occurrence for other Subcontractors, except to the extent otherwise agreed by Owner in advance and in writing. "**Major Subcontractors**" are those Subcontractors that (i) have contracts with a value of \$100,000 or more and (ii) perform Work in the following trades: excavation, foundation, concrete, steel, scaffolding, masonry, HVAC, plumbing, windows, electrical, roofing, waterproofing, elevators, carpentry, or drywall.
- (d) Contractor's pollution liability insurance is not required of Subcontractors, except Contractor shall require any Subcontractors that perform abatement Work to maintain contractor's pollution liability insurance that (i) has limits of not less than \$2,000,000 per loss and in the aggregate and (ii) otherwise satisfies the requirements of Section 1(f) above.

Contractor shall require all Subcontractors to waive their rights with respect to property insurance, as required in Section 11.3 of the AIA General Conditions, as amended. Contractor shall obtain Owner's prior and written consent before permitting any other deviations from the requirements of this Exhibit with respect to Subcontractors.

23.3 Contractor shall maintain organized records evidencing compliance by all Subcontractors with the requirements of Section 23.2, with at a minimum (a) a certificate of insurance from each Subcontractor evidencing the insurance required of that party, and (b) a copy of each Subcontractor's (i) additional insured endorsements, and (ii) workers compensation subrogation waiver. Contractor shall obtain the evidence required under the immediately preceding sentence from each Subcontractor before permitting such Subcontractor to commence Work at the Project site. Contractor shall provide records required under this Section to Owner and/or the funding sources upon their request from time to time, shall promptly cause to be revised any errors or omissions in certificates of insurance or other evidence of insurance that are identified by Owner and/or the funding sources, and shall then promptly present Owner and/or the funding sources with the revised certificates of insurance and/or other evidence (as applicable).

23.4 Each insurance policy required of Contractor under this Section (together with the other requirements of this Exhibit, the "**Required Insurance**") must, unless otherwise agreed in advance and in

writing by Owner, be issued by reputable insurance carriers authorized to transact that class of insurance in the State(s) in which the Work is performed, having a Best's rating of at least A VIII. If Contractor's CGL or excess or umbrella policies or endorsements limit the additional insureds' coverage to the limits specified in a written agreement, then notwithstanding the minimum limits set forth in Section 23.1 above, the minimum limits required under this Exhibit for such insurance shall be the greater of the limits specified in Section 23.1 or the limits actually carried by Contractor. Contractor shall not permit deductibles or retentions for any Required Insurance policy to exceed \$25,000 (\$100,000 for professional liability insurance), unless otherwise agreed to by Owner in advance and in writing after disclosure, except that the restrictions in this sentence do not apply to Subcontractors' insurance. To the extent first dollar coverage with respect to Required Insurance, including defense of any claim, is not available to Owner or any other Additional Insured because of a SIR, deductible, or any form of self-insurance, Contractor shall itself cause to be satisfied (unless Owner or the Additional Insureds elect to take these actions at Contractor's expense) what would otherwise be the insurer's obligation to provide defense and/or indemnity until the SIR, deductible, or other condition of the insurer to assuming its defense and/or indemnity obligations has been satisfied.

23.5 Concurrently with the execution of the Contract, Contractor shall provide to Owner and, if separately requested, the funding sources (a) a certificate of insurance evidencing the Required Insurance, (b) if requested, the required additional insured endorsement for Contractor's CGL, and (c) if requested, the required workers compensation subrogation waiver. Contractor shall cause Required Insurance policies to provide that the insurer will notify Owner at least 30 days before the cancellation or non-renewal of, or any material change in, any Required Insurance, and 10 days prior in the case of cancellation due to non-payment. Contractor shall provide an updated certificate of insurance upon Owner's request, and in any case before the expiration or cancellation of the term of any Required Insurance. With respect to the products-completed operations coverage required under Section 23.1, Contractor shall provide a certificate evidencing the continuation of this coverage with its final application for payment and thereafter upon renewal or replacement of this coverage until the expiration of the time provided in Section 23.1. Contractor shall provide copies of Required Insurance policies within 15 days after Owner's request. Owner's failure to require Contractor to provide evidence of Required Insurance, or Owner's acceptance of evidence that indicates insurance that fails to satisfy any requirements of this Schedule, will not constitute a waiver of these requirements.

24. OTHER CONDITIONS

(1) ANTI-DISCRIMINATION: During the performance of this Contract the Contractor agrees as follows:

a. The Contractor will not discriminate against any employee or applicant for employment because of race, religion, color, sex, national origin, age, physical or mental disability, military status, status as a veteran, marital status, pregnancy, childbirth or related medical conditions (including lactation), sexual orientation, gender identity, or any other basis prohibited by state or federal law relating to discrimination in employment, except where there is a bona fide occupational qualification reasonably necessary to the normal operation of the Contractor. The Contractor will post in conspicuous places, available to employees, notices setting forth the provisions of this nondiscrimination clause.

b. The Contractor, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, will state that such Contractor is an equal opportunity employer.

c. Notices, advertisements and solicitations placed in accordance with federal law, rule or regulation shall be deemed sufficient for the purpose of meeting these requirements.

d. The Contractor will include the provisions of the above a, b, and c in every subcontractor or purchase order over \$10,000 in connection with this Contract so that the provisions will be binding upon each subcontractor or vendor.

(2) **DRUG-FREE WORKPLACE:** During the performance of this Contract, the Contractor shall (i) provide a drug-free workplace for the Contractor's employees; (ii) post in conspicuous places, available to employees, a statement notifying employees that the unlawful manufacture, sale, distribution, dispensation, possession, or use of a controlled substance or marijuana is prohibited in the Contractor's workplace and specifying the actions that will be taken against employees for violations of such prohibition; (iii) state in all solicitations or advertisements for employees placed by or on behalf of the Contractor that the Contractor maintains a drug-free workplace; and (iv) include the provisions of the foregoing clauses in every subcontract or purchase order of over \$10,000 in connection with this Contract, so that the provisions will be binding upon each subcontractor or vendor.

(3) **IMMIGRATION REFORM AND CONTROL ACT OF 1986:** The Contractor represents and warrants it does not and will not during the performance of this Contract employ illegal alien workers or otherwise violate the provisions of the federal Immigration Reform and Control Act of 1986 or any other federal law regarding the employment of illegal aliens or undocumented workers.

(4) **AVAILABILITY OF FUNDS:** This Contract shall be deemed in force only to the extent of appropriations available for the purchase of such goods and/or services. The TOWN's extended obligations on those Contracts that envision extended funding through successive fiscal periods shall be contingent upon actual appropriations for the following years.

(5) **SUBROGATION:** Any and all waivers of subrogation by Owner contained in the Contract Documents, including without limitation the AIA General Conditions, are hereby deleted. Any and all binding arbitration provisions contained in the Contract Documents, including without limitation the AIA General Conditions, are hereby deleted.

(6) **APPLICABLE LAWS AND COURTS:** This Contract shall be governed in all respects by the laws of the Commonwealth of Virginia and any litigation between the parties arising under this Contract shall be brought in a court of competent jurisdiction in the Roanoke County, Virginia. The Contractor shall comply with all applicable federal, state and local laws, codes, rules and regulations, including without limitation the Virginia Public Procurement Act, Virginia Code §§ 2.2-4300 through 2.2-4377.

(7) **ETHICS IN PUBLIC CONTRACTING:** The Contractor represents and warrants the following: (i) neither it nor any of its employees or agents enters this Contract as a result of any collusion or fraud; (ii) neither it nor any of its employees or agents has been offered or received any kickbacks or inducements in connection with this Contract; and (iii) neither it nor any of its employees or agents has conferred on any person having official responsibility for this transaction any payment, loan, subscription, advance, deposit of money, services or anything of more than nominal value, present or promised, unless consideration of substantially equal or greater value was exchanged. The Contractor shall not offer or give a gratuity of any type to any TOWN employee or agent.

(8) **DEBARMENT STATUS:** The Contractor represents and warrants that it is not currently debarred by the Commonwealth of Virginia or any political subdivision of the Commonwealth of Virginia from entering into contracts for the type of construction and/or services covered by this Contract, nor is it an agent of any person or entity that is currently so debarred.

(9) LICENSE REQUIREMENT; LEGAL COMPLIANCE: The Contractor will procure, at its own expense, all necessary licenses or permits to furnish the goods and services required under this Contract, will comply with all laws, codes, regulations and ordinances applicable to the performance of the Work under the Contract, and will pay all applicable federal and state taxes. Without limiting the foregoing, the Contractor shall pay any and all sales and use taxes assessed by any governmental authority with respect to the transactions contemplated by this Contract.

(10) NO THIRD-PARTY BENEFICIARIES: The parties covenant and agree that: (i) no other individual or entity shall be considered, deemed or otherwise recognized to be a third-party beneficiary of this Contract; (ii) the provisions of this Contract are not intended to be for the benefit of any individual or entity other than the Owner, TOWN or the Contractor; (iii) no other individual or entity shall obtain any right to make any claim against the Owner or the Contractor under the provisions of this Contract; and (iv) no provision of this Contract shall be construed or interpreted to confer third-party beneficiary status on any other individual or entity.

(11) UNREASONABLE/EXCESSIVE CHARGES: Charges which appear to be unreasonable or which are in excess of either (i) the Contract Sum or (ii) any increase in the Contract Sum approved in advance in writing by the Contract Administrator will be researched and challenged, and that portion of the invoice held in abeyance until the matter is resolved. Upon determining that invoiced charges are not reasonable or are excessive, the TOWN shall promptly notify the Contractor, in writing, as to those charges which it considers unreasonable and/or excessive and the basis for the determination.

(12) INSPECTIONS: The Contractor shall be responsible for arranging and obtaining all inspections by federal, state, and/or local authorities that may be necessary during or at the conclusion of the Project.

(13) FORCE MAJEURE: Neither party shall be liable for any costs or damages resulting from its inability to perform any of its obligations under the contract due to an event outside the control and not the fault of the affected party (a "Force Majeure Event"). Examples of a Force Majeure Event include, but are not limited to, natural disasters, acts of God, terrorism, war, civil disorder, fire, flood, pandemic, explosion, riot, labor disputes or strikes (labor disputes with the impacted party's own employees will not be considered a Force Majeure Event and will not suspend performance requirements under the contract), any act or order of any governmental authority, theft, windstorm, water, vandalism, failure of power or utilities, or other similar causes, beyond the control of the parties which delays or prevents the performance of the agreement. It is understood that both parties shall exercise due care and prudence to avoid and/or mitigate the impact of a Force Majeure Event. A Force Majeure Event shall not constitute a breach of contract; provided, that the party impacted by the Force Majeure Event makes reasonable attempts to overcome the impact of the Force Majeure Event and comply with the terms of the Contract. If either party is prevented, wholly or in part, from performing its obligations under this Contract as a result of a Force Majeure Event, then that party shall immediately give notice to the other party of the Force Majeure Event. Upon such notice, all obligations of the affected party under the contract which are reasonably related to the Force Majeure Event shall be suspended until the Force Majeure Event no longer exists. A Force Majeure Event does not cancel obligations for payments due for services actually provided.

(14) REGISTRATION: Pursuant to Virginia Code § 2.2-4311.2, Contractor shall be authorized to transact business in the Commonwealth as a domestic or foreign business entity if so required by Title 13.1 or Title 50 of the Code of Virginia (1950), as amended, or as otherwise provided by law. Contractor shall not allow its existence to lapse or its certificate of authority to be revoked or

cancelled at any time during the term of this contract. Owner may void this Contract if Contractor fails to remain in compliance with the provisions of this Section.

(15) SOVEREIGN IMMUNITY; PUBLIC POLICY: Nothing contained in the Contract Documents is intended to waive, or shall be construed as a waiver of, the sovereign immunity of TOWN.

(16) INDEPENDENT CONTRACTORS: The parties hereto are independent contractors and are not agents, partners, or joint venturers. Neither party shall have the ability to bind the other to any contract with a third party and neither party shall hold itself out to any third party as having the right to bind the other party to any contract.

(17) SUCCESSORS; ASSIGNS: The Contract shall be binding upon and shall inure to the benefit of the parties hereto and their respective executors, administrators, heirs, successors-in-title, successors and assigns.

(18) ASSIGNMENT: The Contractor shall not assign any of its rights, duties or obligations under the Contract or Contract Documents without the prior written consent of TOWN. Owner may assign any of its rights and duties to a third party.

(19) SEVERABILITY: Should any provision of this Contract be held unenforceable for any reason, it shall be deemed severed from the Contract, the remainder of which shall remain valid and enforceable.

(20) NON-WAIVER: The failure of TOWN to insist upon strict performance of any of the terms or provisions of this Contract or to exercise any option, right or remedy contained in this Contract shall not be construed as a waiver or relinquishment for the future of such term, provision, option, right or remedy. The waiver by TOWN of a breach of any provision hereof shall not be taken or held to be a waiver of any succeeding breach of such provision or as a waiver of the provision itself.

(21) ATTORNEY'S FEES AND COSTS: The Contractor shall pay all costs, litigation-related expenses, reasonable attorney's fees and consultants' fees incurred by TOWN in the event TOWN, as plaintiff, defendant or otherwise, prevails in whole or in part against the Contractor or any Subcontractor in any judicial or administrative action or suit arising under this Contract or concerning any services or products supplied by Contractor. This provision for attorney's fees, expenses and costs shall be in addition to any other remedies available to TOWN under the Contract Documents, at law, or in equity.

(22) ANTI-KICKBACK PROVISION: Consultant represents and warrants that this contract has been awarded without collusion or fraud and it has not offered or received any kickbacks or inducements from any other offeror, supplier, or subcontractor in connection with its proposal, and that it has not conferred on any TOWN employee having official responsibility for this procurement transaction any payment, loan, subscription, advance, deposit of money, services or anything of more than nominal value, present or promised, unless consideration of substantially equal or greater value was exchanged.

(23) HEADINGS: The Section titles are inserted herein only as a matter of convenience and for reference and in no way define, limit or describe the scope or intent of this Contract nor in any way affect this Contract.

(24) ENTIRE AGREEMENT: The Contract Documents contain the entire understanding of the parties and supersede all prior and contemporaneous negotiations, correspondence, understandings and agreements of the parties relating to the subject matter hereof. No waiver or modification of this

Contract or of any covenant, condition or limitation herein shall be valid against TOWN unless in writing and signed by TOWN's Authorized Representative. This Contract may not be amended without the specific written consent of both parties. The parties agree that the provisions of this Section may not be waived except as herein provided.

APPENDIX C

GENERAL CONDITIONS OF THE CONTRACT AIA A201

AIA® Document A201® – 2017

General Conditions of the Contract for Construction

for the following PROJECT:

(Name and location or address)

Vinton War Memorial Renovation

814 East Washington Avenue
Vinton, VA 24179

THE OWNER:

(Name, legal status and address)

Town of Vinton
311 S. Pollard Street
Vinton VA 24179

THE ARCHITECT:

(Name, legal status and address)

Hughes Associates Architects & Engineers
A Professional Corporation
3800 Electric Road, Suite 300
Roanoke, VA 24018

TABLE OF ARTICLES

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2	OWNER
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9	PAYMENTS AND COMPLETION
10	PROTECTION OF PERSONS AND PROPERTY
11	INSURANCE AND BONDS
12	UNCOVERING AND CORRECTION OF WORK

ADDITIONS AND DELETIONS:

The author of this document has added information needed for its completion. The author may also have revised the text of the original AIA standard form. An *Additions and Deletions Report* that notes added information as well as revisions to the standard form text is available from the author and should be reviewed. A vertical line in the left margin of this document indicates where the author has added necessary information and where the author has added to or deleted from the original AIA text.

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

For guidance in modifying this document to include supplementary conditions, see AIA Document A503™, Guide for Supplementary Conditions.

- 13 MISCELLANEOUS PROVISIONS
- 14 TERMINATION OR SUSPENSION OF THE CONTRACT
- 15 CLAIMS AND DISPUTES

Init.

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User Notes:

(1836075592)

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ARTICLE 1 GENERAL PROVISIONS

§ 1.1 Basic Definitions

§ 1.1.1 The Contract Documents

The Contract Documents are enumerated in the Agreement between the Owner and Contractor (hereinafter the Agreement) and consist of the Agreement, Conditions of the Contract (General, Supplementary and other Conditions), Drawings, Specifications, Addenda issued prior to execution of the Contract, other documents listed in the Agreement, and Modifications issued after execution of the Contract. A Modification is (1) a written amendment to the Contract signed by both parties, (2) a Change Order, (3) a Construction Change Directive, or (4) a written order for a minor change in the Work issued by the Architect. Unless specifically enumerated in the Agreement, the Contract Documents do not include the advertisement or invitation to bid, Instructions to Bidders, sample forms, other information furnished by the Owner in anticipation of receiving bids or proposals, the Contractor's bid or proposal, or portions of Addenda relating to bidding or proposal requirements.

§ 1.1.2 The Contract

The Contract Documents form the Contract for Construction. The Contract represents the entire and integrated agreement between the parties hereto and supersedes prior negotiations, representations, or agreements, either written or oral. The Contract may be amended or modified only by a Modification. The Contract Documents shall not be construed to create a contractual relationship of any kind (1) between the Contractor and the Architect or the Architect's consultants, (2) between the Owner and a Subcontractor or a Sub-subcontractor, (3) between the Owner and the Architect or the Architect's consultants, or (4) between any persons or entities other than the Owner and the Contractor. The Architect shall, however, be entitled to performance and enforcement of obligations under the Contract intended to facilitate performance of the Architect's duties.

§ 1.1.3 The Work

The term "Work" means the construction and services required by the Contract Documents, whether completed or partially completed, and includes all other labor, materials, equipment, and services provided or to be provided by the Contractor to fulfill the Contractor's obligations. The Work may constitute the whole or a part of the Project.

§ 1.1.4 The Project

The Project is the total construction of which the Work performed under the Contract Documents may be the whole or a part and which may include construction by the Owner and by Separate Contractors.

§ 1.1.5 The Drawings

The Drawings are the graphic and pictorial portions of the Contract Documents showing the design, location and dimensions of the Work, generally including plans, elevations, sections, details, schedules, and diagrams.

§ 1.1.6 The Specifications

The Specifications are that portion of the Contract Documents consisting of the written requirements for materials, equipment, systems, standards and workmanship for the Work, and performance of related services.

§ 1.1.7 Instruments of Service

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

§ 1.1.8 Initial Decision Maker

The Initial Decision Maker is the person identified in the Agreement to render initial decisions on Claims in accordance with Section 15.2. The Initial Decision Maker shall not show partiality to the Owner or Contractor and shall not be liable for results of interpretations or decisions rendered in good faith.

§ 1.2 Correlation and Intent of the Contract Documents

§ 1.2.1 The intent of the Contract Documents is to include all items necessary for the proper execution and completion of the Work by the Contractor. The Contract Documents are complementary, and what is required by one shall be as binding as if required by all; performance by the Contractor shall be required only to the extent consistent with the Contract Documents and reasonably inferable from them as being necessary to produce the indicated results.

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

§ 1.2.2 Organization of the Specifications into divisions, sections and articles, and arrangement of Drawings shall not control the Contractor in dividing the Work among Subcontractors or in establishing the extent of Work to be performed by any trade.

§ 1.2.3 Unless otherwise stated in the Contract Documents, words that have well-known technical or construction industry meanings are used in the Contract Documents in accordance with such recognized meanings.

§ 1.3 Capitalization

Terms capitalized in these General Conditions include those that are (1) specifically defined, (2) the titles of numbered articles, or (3) the titles of other documents published by the American Institute of Architects.

§ 1.4 Interpretation

In the interest of brevity the Contract Documents frequently omit modifying words such as "all" and "any" and articles such as "the" and "an," but the fact that a modifier or an article is absent from one statement and appears in another is not intended to affect the interpretation of either statement.

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

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

§ 1.5.2 The Contractor, Subcontractors, Sub-subcontractors, and suppliers are authorized to use and reproduce the Instruments of Service provided to them, subject to any protocols established pursuant to Sections 1.7 and 1.8, solely and exclusively for execution of the Work. All copies made under this authorization shall bear the copyright notice, if any, shown on the Instruments of Service. The Contractor, Subcontractors, Sub-subcontractors, and suppliers may not use the Instruments of Service on other projects or for additions to the Project outside the scope of the Work without the specific written consent of the Owner, Architect, and the Architect's consultants.

§ 1.6 Notice

§ 1.6.1 Except as otherwise provided in Section 1.6.2, where the Contract Documents require one party to notify or give notice to the other party, such notice shall be provided in writing to the designated representative of the party to whom the notice is addressed and shall be deemed to have been duly served if delivered in person, by mail, by courier, or by electronic transmission if a method for electronic transmission is set forth in the Agreement.

§ 1.6.2 Notice of Claims as provided in Section 15.1.3 shall be provided in writing and shall be deemed to have been duly served only if delivered to the designated representative of the party to whom the notice is addressed by certified or registered mail, or by courier providing proof of delivery.

§ 1.7 Digital Data Use and Transmission

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

§ 1.8 Building Information Models Use and Reliance

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

ARTICLE 2 OWNER

§ 2.1 General

§ 2.1.1 The Owner is the person or entity identified as such in the Agreement and is referred to throughout the Contract Documents as if singular in number. The Owner shall designate in writing a representative who shall have express authority to bind the Owner with respect to all matters requiring the Owner's approval or authorization. Except as otherwise provided in Section 4.2.1, the Architect does not have such authority. The term "Owner" means the Owner or the Owner's authorized representative.

§ 2.1.2 The Owner shall furnish to the Contractor, within fifteen days after receipt of a written request, information necessary and relevant for the Contractor to evaluate, give notice of, or enforce mechanic's lien rights. Such information shall include a correct statement of the record legal title to the property on which the Project is located, usually referred to as the site, and the Owner's interest therein.

§ 2.2 Evidence of the Owner's Financial Arrangements

§ 2.2.1 Prior to commencement of the Work and upon written request by the Contractor, the Owner shall furnish to the Contractor reasonable evidence that the Owner has made financial arrangements to fulfill the Owner's obligations under the Contract. The Contractor shall have no obligation to commence the Work until the Owner provides such evidence. If commencement of the Work is delayed under this Section 2.2.1, the Contract Time shall be extended appropriately.

§ 2.2.2 Following commencement of the Work and upon written request by the Contractor, the Owner shall furnish to the Contractor reasonable evidence that the Owner has made financial arrangements to fulfill the Owner's obligations under the Contract only if (1) the Owner fails to make payments to the Contractor as the Contract Documents require; (2) the Contractor identifies in writing a reasonable concern regarding the Owner's ability to make payment when due; or (3) a change in the Work materially changes the Contract Sum. If the Owner fails to provide such evidence, as required, within fourteen days of the Contractor's request, the Contractor may immediately stop the Work and, in that event, shall notify the Owner that the Work has stopped. However, if the request is made because a change in the Work materially changes the Contract Sum under (3) above, the Contractor may immediately stop only that portion of the Work affected by the change until reasonable evidence is provided. If the Work is stopped under this Section 2.2.2, the Contract Time shall be extended appropriately and the Contract Sum shall be increased by the amount of the Contractor's reasonable costs of shutdown, delay and start-up, plus interest as provided in the Contract Documents.

§ 2.2.3 After the Owner furnishes evidence of financial arrangements under this Section 2.2, the Owner shall not materially vary such financial arrangements without prior notice to the Contractor.

§ 2.2.4 Where the Owner has designated information furnished under this Section 2.2 as "confidential," the Contractor shall keep the information confidential and shall not disclose it to any other person. However, the Contractor may disclose "confidential" information, after seven (7) days' notice to the Owner, where disclosure is required by law, including a subpoena or other form of compulsory legal process issued by a court or governmental entity, or by court or arbitrator(s) order. The Contractor may also disclose "confidential" information to its employees, consultants, sureties, Subcontractors and their employees, Sub-subcontractors, and others who need to know the content of such information solely and exclusively for the Project and who agree to maintain the confidentiality of such information.

§ 2.3 Information and Services Required of the Owner

§ 2.3.1 Except for permits and fees that are the responsibility of the Contractor under the Contract Documents, including those required under Section 3.7.1, the Owner shall secure and pay for necessary approvals, easements, assessments and charges required for construction, use or occupancy of permanent structures or for permanent changes in existing facilities.

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

§ 2.3.3 If the employment of the Architect terminates, the Owner shall employ a successor to whom the Contractor has no reasonable objection and whose status under the Contract Documents shall be that of the Architect.

§ 2.3.4 The Owner shall furnish surveys describing physical characteristics, legal limitations and utility locations for the site of the Project, and a legal description of the site. The Contractor shall be entitled to rely on the accuracy of information furnished by the Owner but shall exercise proper precautions relating to the safe performance of the Work.

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

§ 2.3.6 Unless otherwise provided in the Contract Documents, the Owner shall furnish to the Contractor one copy of the Contract Documents for purposes of making reproductions pursuant to Section 1.5.2.

§ 2.4 Owner's Right to Stop the Work

If the Contractor fails to correct Work that is not in accordance with the requirements of the Contract Documents as required by Section 12.2 or repeatedly fails to carry out Work in accordance with the Contract Documents, the Owner may issue a written order to the Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, the right of the Owner to stop the Work shall not give rise to a duty on the part of the Owner to exercise this right for the benefit of the Contractor or any other person or entity, except to the extent required by Section 6.1.3.

§ 2.5 Owner's Right to Carry Out the Work

If the Contractor defaults or neglects to carry out the Work in accordance with the Contract Documents and fails within a ten-day period after receipt of notice from the Owner to commence and continue correction of such default or neglect with diligence and promptness, the Owner may, without prejudice to other remedies the Owner may have, correct such default or neglect. Such action by the Owner and amounts charged to the Contractor are both subject to prior approval of the Architect and the Architect may, pursuant to Section 9.5.1, withhold or nullify a Certificate for Payment in whole or in part, to the extent reasonably necessary to reimburse the Owner for the reasonable cost of correcting such deficiencies, including Owner's expenses and compensation for the Architect's additional services made necessary by such default, neglect, or failure. If current and future payments are not sufficient to cover such amounts, the Contractor shall pay the difference to the Owner. If the Contractor disagrees with the actions of the Owner or the Architect, or the amounts claimed as costs to the Owner, the Contractor may file a Claim pursuant to Article 15.

ARTICLE 3 CONTRACTOR

§ 3.1 General

§ 3.1.1 The Contractor is the person or entity identified as such in the Agreement and is referred to throughout the Contract Documents as if singular in number. The Contractor shall be lawfully licensed, if required in the jurisdiction where the Project is located. The Contractor shall designate in writing a representative who shall have express authority to bind the Contractor with respect to all matters under this Contract. The term "Contractor" means the Contractor or the Contractor's authorized representative.

§ 3.1.2 The Contractor shall perform the Work in accordance with the Contract Documents.

§ 3.1.3 The Contractor shall not be relieved of its obligations to perform the Work in accordance with the Contract Documents either by activities or duties of the Architect in the Architect's administration of the Contract, or by tests, inspections or approvals required or performed by persons or entities other than the Contractor.

§ 3.2 Review of Contract Documents and Field Conditions by Contractor

§ 3.2.1 Execution of the Contract by the Contractor is a representation that the Contractor has visited the site, become generally familiar with local conditions under which the Work is to be performed, and correlated personal observations with requirements of the Contract Documents.

§ 3.2.2 Because the Contract Documents are complementary, the Contractor shall, before starting each portion of the Work, carefully study and compare the various Contract Documents relative to that portion of the Work, as well as the information furnished by the Owner pursuant to Section 2.3.4, shall take field measurements of any existing conditions related to that portion of the Work, and shall observe any conditions at the site affecting it. These

obligations are for the purpose of facilitating coordination and construction by the Contractor and are not for the purpose of discovering errors, omissions, or inconsistencies in the Contract Documents; however, the Contractor shall promptly report to the Architect any errors, inconsistencies or omissions discovered by or made known to the Contractor as a request for information in such form as the Architect may require. It is recognized that the Contractor's review is made in the Contractor's capacity as a contractor and not as a licensed design professional, unless otherwise specifically provided in the Contract Documents.

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

§ 3.2.4 If the Contractor believes that additional cost or time is involved because of clarifications or instructions the Architect issues in response to the Contractor's notices or requests for information pursuant to Sections 3.2.2 or 3.2.3, the Contractor shall submit Claims as provided in Article 15. If the Contractor fails to perform the obligations of Sections 3.2.2 or 3.2.3, the Contractor shall pay such costs and damages to the Owner, subject to Section 15.1.7, as would have been avoided if the Contractor had performed such obligations. If the Contractor performs those obligations, the Contractor shall not be liable to the Owner or Architect for damages resulting from errors, inconsistencies or omissions in the Contract Documents, for differences between field measurements or conditions and the Contract Documents, or for nonconformities of the Contract Documents to applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities.

§ 3.3 Supervision and Construction Procedures

§ 3.3.1 The Contractor shall supervise and direct the Work, using the Contractor's best skill and attention. The Contractor shall be solely responsible for, and have control over, construction means, methods, techniques, sequences, and procedures, and for coordinating all portions of the Work under the Contract. If the Contract Documents give specific instructions concerning construction means, methods, techniques, sequences, or procedures, the Contractor shall evaluate the jobsite safety thereof and shall be solely responsible for the jobsite safety of such means, methods, techniques, sequences, or procedures. If the Contractor determines that such means, methods, techniques, sequences or procedures may not be safe, the Contractor shall give timely notice to the Owner and Architect, and shall propose alternative means, methods, techniques, sequences, or procedures. The Architect shall evaluate the proposed alternative solely for conformance with the design intent for the completed construction. Unless the Architect objects to the Contractor's proposed alternative, the Contractor shall perform the Work using its alternative means, methods, techniques, sequences, or procedures.

§ 3.3.2 The Contractor shall be responsible to the Owner for acts and omissions of the Contractor's employees, Subcontractors and their agents and employees, and other persons or entities performing portions of the Work for, or on behalf of, the Contractor or any of its Subcontractors.

§ 3.3.3 The Contractor shall be responsible for inspection of portions of Work already performed to determine that such portions are in proper condition to receive subsequent Work.

§ 3.4 Labor and Materials

§ 3.4.1 Unless otherwise provided in the Contract Documents, the Contractor shall provide and pay for labor, materials, equipment, tools, construction equipment and machinery, water, heat, utilities, transportation, and other facilities and services necessary for proper execution and completion of the Work, whether temporary or permanent and whether or not incorporated or to be incorporated in the Work.

§ 3.4.2 Except in the case of minor changes in the Work approved by the Architect in accordance with Section 3.12.8 or ordered by the Architect in accordance with Section 7.4, the Contractor may make substitutions only with the consent of the Owner, after evaluation by the Architect and in accordance with a Change Order or Construction Change Directive.

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

§ 3.5 Warranty

§ 3.5.1 The Contractor warrants to the Owner and Architect that materials and equipment furnished under the Contract will be of good quality and new unless the Contract Documents require or permit otherwise. The Contractor further warrants that the Work will conform to the requirements of the Contract Documents and will be free from defects, except for those inherent in the quality of the Work the Contract Documents require or permit. Work, materials, or equipment not conforming to these requirements may be considered defective. The Contractor's warranty excludes remedy for damage or defect caused by abuse, alterations to the Work not executed by the Contractor, improper or insufficient maintenance, improper operation, or normal wear and tear and normal usage. If required by the Architect, the Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment.

§ 3.5.2 All material, equipment, or other special warranties required by the Contract Documents shall be issued in the name of the Owner, or shall be transferable to the Owner, and shall commence in accordance with Section 9.8.4.

§ 3.6 Taxes

The Contractor shall pay sales, consumer, use and similar taxes for the Work provided by the Contractor that are legally enacted when bids are received or negotiations concluded, whether or not yet effective or merely scheduled to go into effect.

§ 3.7 Permits, Fees, Notices and Compliance with Laws

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

§ 3.7.2 The Contractor shall comply with and give notices required by applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities applicable to performance of the Work.

§ 3.7.3 If the Contractor performs Work knowing it to be contrary to applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities, the Contractor shall assume appropriate responsibility for such Work and shall bear the costs attributable to correction.

§ 3.7.4 Concealed or Unknown Conditions

If the Contractor encounters conditions at the site that are (1) subsurface or otherwise concealed physical conditions that differ materially from those indicated in the Contract Documents or (2) unknown physical conditions of an unusual nature that differ materially from those ordinarily found to exist and generally recognized as inherent in construction activities of the character provided for in the Contract Documents, the Contractor shall promptly provide notice to the Owner and the Architect before conditions are disturbed and in no event later than 14 days after first observance of the conditions. The Architect will promptly investigate such conditions and, if the Architect determines that they differ materially and cause an increase or decrease in the Contractor's cost of, or time required for, performance of any part of the Work, will recommend that an equitable adjustment be made in the Contract Sum or Contract Time, or both. If the Architect determines that the conditions at the site are not materially different from those indicated in the Contract Documents and that no change in the terms of the Contract is justified, the Architect shall promptly notify the Owner and Contractor, stating the reasons. If either party disputes the Architect's determination or recommendation, that party may submit a Claim as provided in Article 15.

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

§ 3.8 Allowances

§ 3.8.1 The Contractor shall include in the Contract Sum all allowances stated in the Contract Documents. Items covered by allowances shall be supplied for such amounts and by such persons or entities as the Owner may direct, but the Contractor shall not be required to employ persons or entities to whom the Contractor has reasonable objection.

§ 3.8.2 Unless otherwise provided in the Contract Documents,

- .1 allowances shall cover the cost to the Contractor of materials and equipment delivered at the site and all required taxes, less applicable trade discounts;
- .2 Contractor's costs for unloading and handling at the site, labor, installation costs, overhead, profit, and other expenses contemplated for stated allowance amounts shall be included in the Contract Sum but not in the allowances; and
- .3 whenever costs are more than or less than allowances, the Contract Sum shall be adjusted accordingly by Change Order. The amount of the Change Order shall reflect (1) the difference between actual costs and the allowances under Section 3.8.2.1 and (2) changes in Contractor's costs under Section 3.8.2.2.

§ 3.8.3 Materials and equipment under an allowance shall be selected by the Owner with reasonable promptness.

§ 3.9 Superintendent

§ 3.9.1 The Contractor shall employ a competent superintendent and necessary assistants who shall be in attendance at the Project site during performance of the Work. The superintendent shall represent the Contractor, and communications given to the superintendent shall be as binding as if given to the Contractor.

§ 3.9.2 The Contractor, as soon as practicable after award of the Contract, shall notify the Owner and Architect of the name and qualifications of a proposed superintendent. Within 14 days of receipt of the information, the Architect may notify the Contractor, stating whether the Owner or the Architect (1) has reasonable objection to the proposed superintendent or (2) requires additional time for review. Failure of the Architect to provide notice within the 14-day period shall constitute notice of no reasonable objection.

§ 3.9.3 The Contractor shall not employ a proposed superintendent to whom the Owner or Architect has made reasonable and timely objection. The Contractor shall not change the superintendent without the Owner's consent, which shall not unreasonably be withheld or delayed.

§ 3.10 Contractor's Construction and Submittal Schedules

§ 3.10.1 The Contractor, promptly after being awarded the Contract, shall submit for the Owner's and Architect's information a Contractor's construction schedule for the Work. The schedule shall contain detail appropriate for the Project, including (1) the date of commencement of the Work, interim schedule milestone dates, and the date of Substantial Completion; (2) an apportionment of the Work by construction activity; and (3) the time required for completion of each portion of the Work. The schedule shall provide for the orderly progression of the Work to completion and shall not exceed time limits current under the Contract Documents. The schedule shall be revised at appropriate intervals as required by the conditions of the Work and Project.

§ 3.10.2 The Contractor, promptly after being awarded the Contract and thereafter as necessary to maintain a current submittal schedule, shall submit a submittal schedule for the Architect's approval. The Architect's approval shall not be unreasonably delayed or withheld. The submittal schedule shall (1) be coordinated with the Contractor's construction schedule, and (2) allow the Architect reasonable time to review submittals. If the Contractor fails to submit a submittal schedule, or fails to provide submittals in accordance with the approved submittal schedule, the Contractor shall not be entitled to any increase in Contract Sum or extension of Contract Time based on the time required for review of submittals.

§ 3.10.3 The Contractor shall perform the Work in general accordance with the most recent schedules submitted to the Owner and Architect.

§ 3.11 Documents and Samples at the Site

The Contractor shall make available, at the Project site, the Contract Documents, including Change Orders, Construction Change Directives, and other Modifications, in good order and marked currently to indicate field changes and selections made during construction, and the approved Shop Drawings, Product Data, Samples, and similar required submittals. These shall be in electronic form or paper copy, available to the Architect and Owner, and delivered to the Architect for submittal to the Owner upon completion of the Work as a record of the Work as constructed.

§ 3.12 Shop Drawings, Product Data and Samples

§ 3.12.1 Shop Drawings are drawings, diagrams, schedules, and other data specially prepared for the Work by the Contractor or a Subcontractor, Sub-subcontractor, manufacturer, supplier, or distributor to illustrate some portion of the Work.

§ 3.12.2 Product Data are illustrations, standard schedules, performance charts, instructions, brochures, diagrams, and other information furnished by the Contractor to illustrate materials or equipment for some portion of the Work.

§ 3.12.3 Samples are physical examples that illustrate materials, equipment, or workmanship, and establish standards by which the Work will be judged.

§ 3.12.4 Shop Drawings, Product Data, Samples, and similar submittals are not Contract Documents. Their purpose is to demonstrate how the Contractor proposes to conform to the information given and the design concept expressed in the Contract Documents for those portions of the Work for which the Contract Documents require submittals. Review by the Architect is subject to the limitations of Section 4.2.7. Informational submittals upon which the Architect is not expected to take responsive action may be so identified in the Contract Documents. Submittals that are not required by the Contract Documents may be returned by the Architect without action.

§ 3.12.5 The Contractor shall review for compliance with the Contract Documents, approve, and submit to the Architect, Shop Drawings, Product Data, Samples, and similar submittals required by the Contract Documents, in accordance with the submittal schedule approved by the Architect or, in the absence of an approved submittal schedule, with reasonable promptness and in such sequence as to cause no delay in the Work or in the activities of the Owner or of Separate Contractors.

§ 3.12.6 By submitting Shop Drawings, Product Data, Samples, and similar submittals, the Contractor represents to the Owner and Architect that the Contractor has (1) reviewed and approved them, (2) determined and verified materials, field measurements and field construction criteria related thereto, or will do so, and (3) checked and coordinated the information contained within such submittals with the requirements of the Work and of the Contract Documents.

§ 3.12.7 The Contractor shall perform no portion of the Work for which the Contract Documents require submittal and review of Shop Drawings, Product Data, Samples, or similar submittals, until the respective submittal has been approved by the Architect.

§ 3.12.8 The Work shall be in accordance with approved submittals except that the Contractor shall not be relieved of responsibility for deviations from the requirements of the Contract Documents by the Architect's approval of Shop Drawings, Product Data, Samples, or similar submittals, unless the Contractor has specifically notified the Architect of such deviation at the time of submittal and (1) the Architect has given written approval to the specific deviation as a minor change in the Work, or (2) a Change Order or Construction Change Directive has been issued authorizing the deviation. The Contractor shall not be relieved of responsibility for errors or omissions in Shop Drawings, Product Data, Samples, or similar submittals, by the Architect's approval thereof.

§ 3.12.9 The Contractor shall direct specific attention, in writing or on resubmitted Shop Drawings, Product Data, Samples, or similar submittals, to revisions other than those requested by the Architect on previous submittals. In the absence of such notice, the Architect's approval of a resubmission shall not apply to such revisions.

§ 3.12.10 The Contractor shall not be required to provide professional services that constitute the practice of architecture or engineering unless such services are specifically required by the Contract Documents for a portion of the Work or unless the Contractor needs to provide such services in order to carry out the Contractor's responsibilities for construction means, methods, techniques, sequences, and procedures. The Contractor shall not be required to provide professional services in violation of applicable law.

§ 3.12.10.1 If professional design services or certifications by a design professional related to systems, materials, or equipment are specifically required of the Contractor by the Contract Documents, the Owner and the Architect will specify all performance and design criteria that such services must satisfy. The Contractor shall be entitled to rely upon the adequacy and accuracy of the performance and design criteria provided in the Contract Documents. The Contractor shall cause such services or certifications to be provided by an appropriately licensed design professional,

whose signature and seal shall appear on all drawings, calculations, specifications, certifications, Shop Drawings, and other submittals prepared by such professional. Shop Drawings, and other submittals related to the Work, designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted to the Architect. The Owner and the Architect shall be entitled to rely upon the adequacy and accuracy of the services, certifications, and approvals performed or provided by such design professionals, provided the Owner and Architect have specified to the Contractor the performance and design criteria that such services must satisfy. Pursuant to this Section 3.12.10, the Architect will review and approve or take other appropriate action on submittals only for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents.

§ 3.12.10.2 If the Contract Documents require the Contractor's design professional to certify that the Work has been performed in accordance with the design criteria, the Contractor shall furnish such certifications to the Architect at the time and in the form specified by the Architect.

§ 3.13 Use of Site

The Contractor shall confine operations at the site to areas permitted by applicable laws, statutes, ordinances, codes, rules and regulations, lawful orders of public authorities, and the Contract Documents and shall not unreasonably encumber the site with materials or equipment.

§ 3.14 Cutting and Patching

§ 3.14.1 The Contractor shall be responsible for cutting, fitting, or patching required to complete the Work or to make its parts fit together properly. All areas requiring cutting, fitting, or patching shall be restored to the condition existing prior to the cutting, fitting, or patching, unless otherwise required by the Contract Documents.

§ 3.14.2 The Contractor shall not damage or endanger a portion of the Work or fully or partially completed construction of the Owner or Separate Contractors by cutting, patching, or otherwise altering such construction, or by excavation. The Contractor shall not cut or otherwise alter construction by the Owner or a Separate Contractor except with written consent of the Owner and of the Separate Contractor. Consent shall not be unreasonably withheld. The Contractor shall not unreasonably withhold, from the Owner or a Separate Contractor, its consent to cutting or otherwise altering the Work.

§ 3.15 Cleaning Up

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

§ 3.15.2 If the Contractor fails to clean up as provided in the Contract Documents, the Owner may do so and the Owner shall be entitled to reimbursement from the Contractor.

§ 3.16 Access to Work

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

§ 3.17 Royalties, Patents and Copyrights

The Contractor shall pay all royalties and license fees. The Contractor shall defend suits or claims for infringement of copyrights and patent rights and shall hold the Owner and Architect harmless from loss on account thereof, but shall not be responsible for defense or loss when a particular design, process, or product of a particular manufacturer or manufacturers is required by the Contract Documents, or where the copyright violations are contained in Drawings, Specifications, or other documents prepared by the Owner or Architect. However, if an infringement of a copyright or patent is discovered by, or made known to, the Contractor, the Contractor shall be responsible for the loss unless the information is promptly furnished to the Architect.

§ 3.18 Indemnification

§ 3.18.1 To the fullest extent permitted by law, the Contractor shall indemnify and hold harmless the Owner, Architect, Architect's consultants, and agents and employees of any of them from and against claims, damages, losses, and expenses, including but not limited to attorneys' fees, arising out of or resulting from performance of the Work,

provided that such claim, damage, loss, or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself), but only to the extent caused by the negligent acts or omissions of the Contractor, a Subcontractor, anyone directly or indirectly employed by them, or anyone for whose acts they may be liable, regardless of whether or not such claim, damage, loss, or expense is caused in part by a party indemnified hereunder. Such obligation shall not be construed to negate, abridge, or reduce other rights or obligations of indemnity that would otherwise exist as to a party or person described in this Section 3.18.

§ 3.18.2 In claims against any person or entity indemnified under this Section 3.18 by an employee of the Contractor, a Subcontractor, anyone directly or indirectly employed by them, or anyone for whose acts they may be liable, the indemnification obligation under Section 3.18.1 shall not be limited by a limitation on amount or type of damages, compensation, or benefits payable by or for the Contractor or a Subcontractor under workers' compensation acts, disability benefit acts, or other employee benefit acts.

ARTICLE 4 ARCHITECT

§ 4.1 General

§ 4.1.1 The Architect is the person or entity retained by the Owner pursuant to Section 2.3.2 and identified as such in the Agreement.

§ 4.1.2 Duties, responsibilities, and limitations of authority of the Architect as set forth in the Contract Documents shall not be restricted, modified, or extended without written consent of the Owner, Contractor, and Architect. Consent shall not be unreasonably withheld.

§ 4.2 Administration of the Contract

§ 4.2.1 The Architect will provide administration of the Contract as described in the Contract Documents and will be an Owner's representative during construction until the date the Architect issues the final Certificate for Payment. The Architect will have authority to act on behalf of the Owner only to the extent provided in the Contract Documents.

§ 4.2.2 The Architect will visit the site at intervals appropriate to the stage of construction, or as otherwise agreed with the Owner, to become generally familiar with the progress and quality of the portion of the Work completed, and to determine in general if the Work observed is being performed in a manner indicating that the Work, when fully completed, will be in accordance with the Contract Documents. However, the Architect will not be required to make exhaustive or continuous on-site inspections to check the quality or quantity of the Work. The Architect will not have control over, charge of, or responsibility for the construction means, methods, techniques, sequences or procedures, or for the safety precautions and programs in connection with the Work, since these are solely the Contractor's rights and responsibilities under the Contract Documents.

§ 4.2.3 On the basis of the site visits, the Architect will keep the Owner reasonably informed about the progress and quality of the portion of the Work completed, and promptly report to the Owner (1) known deviations from the Contract Documents, (2) known deviations from the most recent construction schedule submitted by the Contractor, and (3) defects and deficiencies observed in the Work. The Architect will not be responsible for the Contractor's failure to perform the Work in accordance with the requirements of the Contract Documents. The Architect will not have control over or charge of, and will not be responsible for acts or omissions of, the Contractor, Subcontractors, or their agents or employees, or any other persons or entities performing portions of the Work.

§ 4.2.4 Communications

The Owner and Contractor shall include the Architect in all communications that relate to or affect the Architect's services or professional responsibilities. The Owner shall promptly notify the Architect of the substance of any direct communications between the Owner and the Contractor otherwise relating to the Project. Communications by and with the Architect's consultants shall be through the Architect. Communications by and with Subcontractors and suppliers shall be through the Contractor. Communications by and with Separate Contractors shall be through the Owner. The Contract Documents may specify other communication protocols.

§ 4.2.5 Based on the Architect's evaluations of the Contractor's Applications for Payment, the Architect will review and certify the amounts due the Contractor and will issue Certificates for Payment in such amounts.

§ 4.2.6 The Architect has authority to reject Work that does not conform to the Contract Documents. Whenever the Architect considers it necessary or advisable, the Architect will have authority to require inspection or testing of the

Work in accordance with Sections 13.4.2 and 13.4.3, whether or not the Work is fabricated, installed or completed. However, neither this authority of the Architect nor a decision made in good faith either to exercise or not to exercise such authority shall give rise to a duty or responsibility of the Architect to the Contractor, Subcontractors, suppliers, their agents or employees, or other persons or entities performing portions of the Work.

§ 4.2.7 The Architect will review and approve, or take other appropriate action upon, the Contractor's submittals such as Shop Drawings, Product Data, and Samples, but only for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents. The Architect's action will be taken in accordance with the submittal schedule approved by the Architect or, in the absence of an approved submittal schedule, with reasonable promptness while allowing sufficient time in the Architect's professional judgment to permit adequate review. Review of such submittals is not conducted for the purpose of determining the accuracy and completeness of other details such as dimensions and quantities, or for substantiating instructions for installation or performance of equipment or systems, all of which remain the responsibility of the Contractor as required by the Contract Documents. The Architect's review of the Contractor's submittals shall not relieve the Contractor of the obligations under Sections 3.3, 3.5, and 3.12. The Architect's review shall not constitute approval of safety precautions or of any construction means, methods, techniques, sequences, or procedures. The Architect's approval of a specific item shall not indicate approval of an assembly of which the item is a component.

§ 4.2.8 The Architect will prepare Change Orders and Construction Change Directives, and may order minor changes in the Work as provided in Section 7.4. The Architect will investigate and make determinations and recommendations regarding concealed and unknown conditions as provided in Section 3.7.4.

§ 4.2.9 The Architect will conduct inspections to determine the date or dates of Substantial Completion and the date of final completion; issue Certificates of Substantial Completion pursuant to Section 9.8; receive and forward to the Owner, for the Owner's review and records, written warranties and related documents required by the Contract and assembled by the Contractor pursuant to Section 9.10; and issue a final Certificate for Payment pursuant to Section 9.10.

§ 4.2.10 If the Owner and Architect agree, the Architect will provide one or more Project representatives to assist in carrying out the Architect's responsibilities at the site. The Owner shall notify the Contractor of any change in the duties, responsibilities and limitations of authority of the Project representatives.

§ 4.2.11 The Architect will interpret and decide matters concerning performance under, and requirements of, the Contract Documents on written request of either the Owner or Contractor. The Architect's response to such requests will be made in writing within any time limits agreed upon or otherwise with reasonable promptness.

§ 4.2.12 Interpretations and decisions of the Architect will be consistent with the intent of, and reasonably inferable from, the Contract Documents and will be in writing or in the form of drawings. When making such interpretations and decisions, the Architect will endeavor to secure faithful performance by both Owner and Contractor, will not show partiality to either, and will not be liable for results of interpretations or decisions rendered in good faith.

§ 4.2.13 The Architect's decisions on matters relating to aesthetic effect will be final if consistent with the intent expressed in the Contract Documents.

§ 4.2.14 The Architect will review and respond to requests for information about the Contract Documents. The Architect's response to such requests will be made in writing within any time limits agreed upon or otherwise with reasonable promptness. If appropriate, the Architect will prepare and issue supplemental Drawings and Specifications in response to the requests for information.

ARTICLE 5 SUBCONTRACTORS

§ 5.1 Definitions

§ 5.1.1 A Subcontractor is a person or entity who has a direct contract with the Contractor to perform a portion of the Work at the site. The term "Subcontractor" is referred to throughout the Contract Documents as if singular in number and means a Subcontractor or an authorized representative of the Subcontractor. The term "Subcontractor" does not include a Separate Contractor or the subcontractors of a Separate Contractor.

§ 5.1.2 A Sub-subcontractor is a person or entity who has a direct or indirect contract with a Subcontractor to perform a portion of the Work at the site. The term "Sub-subcontractor" is referred to throughout the Contract Documents as if singular in number and means a Sub-subcontractor or an authorized representative of the Sub-subcontractor.

§ 5.2 Award of Subcontracts and Other Contracts for Portions of the Work

§ 5.2.1 Unless otherwise stated in the Contract Documents, the Contractor, as soon as practicable after award of the Contract, shall notify the Owner and Architect of the persons or entities proposed for each principal portion of the Work, including those who are to furnish materials or equipment fabricated to a special design. Within 14 days of receipt of the information, the Architect may notify the Contractor whether the Owner or the Architect (1) has reasonable objection to any such proposed person or entity or (2) requires additional time for review. Failure of the Architect to provide notice within the 14-day period shall constitute notice of no reasonable objection.

§ 5.2.2 The Contractor shall not contract with a proposed person or entity to whom the Owner or Architect has made reasonable and timely objection. The Contractor shall not be required to contract with anyone to whom the Contractor has made reasonable objection.

§ 5.2.3 If the Owner or Architect has reasonable objection to a person or entity proposed by the Contractor, the Contractor shall propose another to whom the Owner or Architect has no reasonable objection. If the proposed but rejected Subcontractor was reasonably capable of performing the Work, the Contract Sum and Contract Time shall be increased or decreased by the difference, if any, occasioned by such change, and an appropriate Change Order shall be issued before commencement of the substitute Subcontractor's Work. However, no increase in the Contract Sum or Contract Time shall be allowed for such change unless the Contractor has acted promptly and responsively in submitting names as required.

§ 5.2.4 The Contractor shall not substitute a Subcontractor, person, or entity for one previously selected if the Owner or Architect makes reasonable objection to such substitution.

§ 5.3 Subcontractual Relations

By appropriate written agreement, the Contractor shall require each Subcontractor, to the extent of the Work to be performed by the Subcontractor, to be bound to the Contractor by terms of the Contract Documents, and to assume toward the Contractor all the obligations and responsibilities, including the responsibility for safety of the Subcontractor's Work that the Contractor, by these Contract Documents, assumes toward the Owner and Architect. Each subcontract agreement shall preserve and protect the rights of the Owner and Architect under the Contract Documents with respect to the Work to be performed by the Subcontractor so that subcontracting thereof will not prejudice such rights, and shall allow to the Subcontractor, unless specifically provided otherwise in the subcontract agreement, the benefit of all rights, remedies, and redress against the Contractor that the Contractor, by the Contract Documents, has against the Owner. Where appropriate, the Contractor shall require each Subcontractor to enter into similar agreements with Sub-subcontractors. The Contractor shall make available to each proposed Subcontractor, prior to the execution of the subcontract agreement, copies of the Contract Documents to which the Subcontractor will be bound, and, upon written request of the Subcontractor, identify to the Subcontractor terms and conditions of the proposed subcontract agreement that may be at variance with the Contract Documents. Subcontractors will similarly make copies of applicable portions of such documents available to their respective proposed Sub-subcontractors.

§ 5.4 Contingent Assignment of Subcontracts

§ 5.4.1 Each subcontract agreement for a portion of the Work is assigned by the Contractor to the Owner, provided that

- .1 assignment is effective only after termination of the Contract by the Owner for cause pursuant to Section 14.2 and only for those subcontract agreements that the Owner accepts by notifying the Subcontractor and Contractor; and
- .2 assignment is subject to the prior rights of the surety, if any, obligated under bond relating to the Contract.

When the Owner accepts the assignment of a subcontract agreement, the Owner assumes the Contractor's rights and obligations under the subcontract.

§ 5.4.2 Upon such assignment, if the Work has been suspended for more than 30 days, the Subcontractor's compensation shall be equitably adjusted for increases in cost resulting from the suspension.

§ 5.4.3 Upon assignment to the Owner under this Section 5.4, the Owner may further assign the subcontract to a successor contractor or other entity. If the Owner assigns the subcontract to a successor contractor or other entity, the Owner shall nevertheless remain legally responsible for all of the successor contractor's obligations under the subcontract.

ARTICLE 6 CONSTRUCTION BY OWNER OR BY SEPARATE CONTRACTORS

§ 6.1 Owner's Right to Perform Construction and to Award Separate Contracts

§ 6.1.1 The term "Separate Contractor(s)" shall mean other contractors retained by the Owner under separate agreements. The Owner reserves the right to perform construction or operations related to the Project with the Owner's own forces, and with Separate Contractors retained under Conditions of the Contract substantially similar to those of this Contract, including those provisions of the Conditions of the Contract related to insurance and waiver of subrogation.

§ 6.1.2 When separate contracts are awarded for different portions of the Project or other construction or operations on the site, the term "Contractor" in the Contract Documents in each case shall mean the Contractor who executes each separate Owner-Contractor Agreement.

§ 6.1.3 The Owner shall provide for coordination of the activities of the Owner's own forces and of each Separate Contractor with the Work of the Contractor, who shall cooperate with them. The Contractor shall participate with any Separate Contractors and the Owner in reviewing their construction schedules. The Contractor shall make any revisions to its construction schedule deemed necessary after a joint review and mutual agreement. The construction schedules shall then constitute the schedules to be used by the Contractor, Separate Contractors, and the Owner until subsequently revised.

§ 6.1.4 Unless otherwise provided in the Contract Documents, when the Owner performs construction or operations related to the Project with the Owner's own forces or with Separate Contractors, the Owner or its Separate Contractors shall have the same obligations and rights that the Contractor has under the Conditions of the Contract, including, without excluding others, those stated in Article 3, this Article 6, and Articles 10, 11, and 12.

§ 6.2 Mutual Responsibility

§ 6.2.1 The Contractor shall afford the Owner and Separate Contractors reasonable opportunity for introduction and storage of their materials and equipment and performance of their activities, and shall connect and coordinate the Contractor's construction and operations with theirs as required by the Contract Documents.

§ 6.2.2 If part of the Contractor's Work depends for proper execution or results upon construction or operations by the Owner or a Separate Contractor, the Contractor shall, prior to proceeding with that portion of the Work, promptly notify the Architect of apparent discrepancies or defects in the construction or operations by the Owner or Separate Contractor that would render it unsuitable for proper execution and results of the Contractor's Work. Failure of the Contractor to notify the Architect of apparent discrepancies or defects prior to proceeding with the Work shall constitute an acknowledgment that the Owner's or Separate Contractor's completed or partially completed construction is fit and proper to receive the Contractor's Work. The Contractor shall not be responsible for discrepancies or defects in the construction or operations by the Owner or Separate Contractor that are not apparent.

§ 6.2.3 The Contractor shall reimburse the Owner for costs the Owner incurs that are payable to a Separate Contractor because of the Contractor's delays, improperly timed activities or defective construction. The Owner shall be responsible to the Contractor for costs the Contractor incurs because of a Separate Contractor's delays, improperly timed activities, damage to the Work or defective construction.

§ 6.2.4 The Contractor shall promptly remedy damage that the Contractor wrongfully causes to completed or partially completed construction or to property of the Owner or Separate Contractor as provided in Section 10.2.5.

§ 6.2.5 The Owner and each Separate Contractor shall have the same responsibilities for cutting and patching as are described for the Contractor in Section 3.14.

§ 6.3 Owner's Right to Clean Up

If a dispute arises among the Contractor, Separate Contractors, and the Owner as to the responsibility under their respective contracts for maintaining the premises and surrounding area free from waste materials and rubbish, the Owner may clean up and the Architect will allocate the cost among those responsible.

ARTICLE 7 CHANGES IN THE WORK

§ 7.1 General

§ 7.1.1 Changes in the Work may be accomplished after execution of the Contract, and without invalidating the Contract, by Change Order, Construction Change Directive or order for a minor change in the Work, subject to the limitations stated in this Article 7 and elsewhere in the Contract Documents.

§ 7.1.2 A Change Order shall be based upon agreement among the Owner, Contractor, and Architect. A Construction Change Directive requires agreement by the Owner and Architect and may or may not be agreed to by the Contractor. An order for a minor change in the Work may be issued by the Architect alone.

§ 7.1.3 Changes in the Work shall be performed under applicable provisions of the Contract Documents. The Contractor shall proceed promptly with changes in the Work, unless otherwise provided in the Change Order, Construction Change Directive, or order for a minor change in the Work.

§ 7.2 Change Orders

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

- .1 The change in the Work;
- .2 The amount of the adjustment, if any, in the Contract Sum; and
- .3 The extent of the adjustment, if any, in the Contract Time.

§ 7.3 Construction Change Directives

§ 7.3.1 A Construction Change Directive is a written order prepared by the Architect and signed by the Owner and Architect, directing a change in the Work prior to agreement on adjustment, if any, in the Contract Sum or Contract Time, or both. The Owner may by Construction Change Directive, without invalidating the Contract, order changes in the Work within the general scope of the Contract consisting of additions, deletions, or other revisions, the Contract Sum and Contract Time being adjusted accordingly.

§ 7.3.2 A Construction Change Directive shall be used in the absence of total agreement on the terms of a Change Order.

§ 7.3.3 If the Construction Change Directive provides for an adjustment to the Contract Sum, the adjustment shall be based on one of the following methods:

- .1 Mutual acceptance of a lump sum properly itemized and supported by sufficient substantiating data to permit evaluation;
- .2 Unit prices stated in the Contract Documents or subsequently agreed upon;
- .3 Cost to be determined in a manner agreed upon by the parties and a mutually acceptable fixed or percentage fee; or
- .4 As provided in Section 7.3.4.

§ 7.3.4 If the Contractor does not respond promptly or disagrees with the method for adjustment in the Contract Sum, the Architect shall determine the adjustment on the basis of reasonable expenditures and savings of those performing the Work attributable to the change, including, in case of an increase in the Contract Sum, an amount for overhead and profit as set forth in the Agreement, or if no such amount is set forth in the Agreement, a reasonable amount. In such case, and also under Section 7.3.3.3, the Contractor shall keep and present, in such form as the Architect may prescribe, an itemized accounting together with appropriate supporting data. Unless otherwise provided in the Contract Documents, costs for the purposes of this Section 7.3.4 shall be limited to the following:

- .1 Costs of labor, including applicable payroll taxes, fringe benefits required by agreement or custom, workers' compensation insurance, and other employee costs approved by the Architect;
- .2 Costs of materials, supplies, and equipment, including cost of transportation, whether incorporated or consumed;

- .3 Rental costs of machinery and equipment, exclusive of hand tools, whether rented from the Contractor or others;
- .4 Costs of premiums for all bonds and insurance, permit fees, and sales, use, or similar taxes, directly related to the change; and
- .5 Costs of supervision and field office personnel directly attributable to the change.

§ 7.3.5 If the Contractor disagrees with the adjustment in the Contract Time, the Contractor may make a Claim in accordance with applicable provisions of Article 15.

§ 7.3.6 Upon receipt of a Construction Change Directive, the Contractor shall promptly proceed with the change in the Work involved and advise the Architect of the Contractor's agreement or disagreement with the method, if any, provided in the Construction Change Directive for determining the proposed adjustment in the Contract Sum or Contract Time.

§ 7.3.7 A Construction Change Directive signed by the Contractor indicates the Contractor's agreement therewith, including adjustment in Contract Sum and Contract Time or the method for determining them. Such agreement shall be effective immediately and shall be recorded as a Change Order.

§ 7.3.8 The amount of credit to be allowed by the Contractor to the Owner for a deletion or change that results in a net decrease in the Contract Sum shall be actual net cost as confirmed by the Architect. When both additions and credits covering related Work or substitutions are involved in a change, the allowance for overhead and profit shall be figured on the basis of net increase, if any, with respect to that change.

§ 7.3.9 Pending final determination of the total cost of a Construction Change Directive to the Owner, the Contractor may request payment for Work completed under the Construction Change Directive in Applications for Payment. The Architect will make an interim determination for purposes of monthly certification for payment for those costs and certify for payment the amount that the Architect determines, in the Architect's professional judgment, to be reasonably justified. The Architect's interim determination of cost shall adjust the Contract Sum on the same basis as a Change Order, subject to the right of either party to disagree and assert a Claim in accordance with Article 15.

§ 7.3.10 When the Owner and Contractor agree with a determination made by the Architect concerning the adjustments in the Contract Sum and Contract Time, or otherwise reach agreement upon the adjustments, such agreement shall be effective immediately and the Architect will prepare a Change Order. Change Orders may be issued for all or any part of a Construction Change Directive.

§ 7.4 Minor Changes in the Work

The Architect may order minor changes in the Work that are consistent with the intent of the Contract Documents and do not involve an adjustment in the Contract Sum or an extension of the Contract Time. The Architect's order for minor changes shall be in writing. If the Contractor believes that the proposed minor change in the Work will affect the Contract Sum or Contract Time, the Contractor shall notify the Architect and shall not proceed to implement the change in the Work. If the Contractor performs the Work set forth in the Architect's order for a minor change without prior notice to the Architect that such change will affect the Contract Sum or Contract Time, the Contractor waives any adjustment to the Contract Sum or extension of the Contract Time.

ARTICLE 8 TIME

§ 8.1 Definitions

§ 8.1.1 Unless otherwise provided, Contract Time is the period of time, including authorized adjustments, allotted in the Contract Documents for Substantial Completion of the Work.

§ 8.1.2 The date of commencement of the Work is the date established in the Agreement.

§ 8.1.3 The date of Substantial Completion is the date certified by the Architect in accordance with Section 9.8.

§ 8.1.4 The term "day" as used in the Contract Documents shall mean calendar day unless otherwise specifically defined.

§ 8.2 Progress and Completion

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

§ 8.2.2 The Contractor shall not knowingly, except by agreement or instruction of the Owner in writing, commence the Work prior to the effective date of insurance required to be furnished by the Contractor and Owner.

§ 8.2.3 The Contractor shall proceed expeditiously with adequate forces and shall achieve Substantial Completion within the Contract Time.

§ 8.3 Delays and Extensions of Time

§ 8.3.1 If the Contractor is delayed at any time in the commencement or progress of the Work by (1) an act or neglect of the Owner or Architect, of an employee of either, or of a Separate Contractor; (2) by changes ordered in the Work; (3) by labor disputes, fire, unusual delay in deliveries, unavoidable casualties, adverse weather conditions documented in accordance with Section 15.1.6.2, or other causes beyond the Contractor's control; (4) by delay authorized by the Owner pending mediation and binding dispute resolution; or (5) by other causes that the Contractor asserts, and the Architect determines, justify delay, then the Contract Time shall be extended for such reasonable time as the Architect may determine.

§ 8.3.2 Claims relating to time shall be made in accordance with applicable provisions of Article 15.

§ 8.3.3 This Section 8.3 does not preclude recovery of damages for delay by either party under other provisions of the Contract Documents.

ARTICLE 9 PAYMENTS AND COMPLETION

§ 9.1 Contract Sum

§ 9.1.1 The Contract Sum is stated in the Agreement and, including authorized adjustments, is the total amount payable by the Owner to the Contractor for performance of the Work under the Contract Documents.

§ 9.1.2 If unit prices are stated in the Contract Documents or subsequently agreed upon, and if quantities originally contemplated are materially changed so that application of such unit prices to the actual quantities causes substantial inequity to the Owner or Contractor, the applicable unit prices shall be equitably adjusted.

§ 9.2 Schedule of Values

Where the Contract is based on a stipulated sum or Guaranteed Maximum Price, the Contractor shall submit a schedule of values to the Architect before the first Application for Payment, allocating the entire Contract Sum to the various portions of the Work. The schedule of values shall be prepared in the form, and supported by the data to substantiate its accuracy, required by the Architect. This schedule, unless objected to by the Architect, shall be used as a basis for reviewing the Contractor's Applications for Payment. Any changes to the schedule of values shall be submitted to the Architect and supported by such data to substantiate its accuracy as the Architect may require, and unless objected to by the Architect, shall be used as a basis for reviewing the Contractor's subsequent Applications for Payment.

§ 9.3 Applications for Payment

§ 9.3.1 At least ten days before the date established for each progress payment, the Contractor shall submit to the Architect an itemized Application for Payment prepared in accordance with the schedule of values, if required under Section 9.2, for completed portions of the Work. The application shall be notarized, if required, and supported by all data substantiating the Contractor's right to payment that the Owner or Architect require, such as copies of requisitions, and releases and waivers of liens from Subcontractors and suppliers, and shall reflect retainage if provided for in the Contract Documents.

§ 9.3.1.1 As provided in Section 7.3.9, such applications may include requests for payment on account of changes in the Work that have been properly authorized by Construction Change Directives, or by interim determinations of the Architect, but not yet included in Change Orders.

§ 9.3.1.2 Applications for Payment shall not include requests for payment for portions of the Work for which the Contractor does not intend to pay a Subcontractor or supplier, unless such Work has been performed by others whom the Contractor intends to pay.

§ 9.3.2 Unless otherwise provided in the Contract Documents, payments shall be made on account of materials and equipment delivered and suitably stored at the site for subsequent incorporation in the Work. If approved in advance by the Owner, payment may similarly be made for materials and equipment suitably stored off the site at a location agreed upon in writing. Payment for materials and equipment stored on or off the site shall be conditioned upon compliance by the Contractor with procedures satisfactory to the Owner to establish the Owner's title to such materials and equipment or otherwise protect the Owner's interest, and shall include the costs of applicable insurance, storage, and transportation to the site, for such materials and equipment stored off the site.

§ 9.3.3 The Contractor warrants that title to all Work covered by an Application for Payment will pass to the Owner no later than the time of payment. The Contractor further warrants that upon submittal of an Application for Payment all Work for which Certificates for Payment have been previously issued and payments received from the Owner shall, to the best of the Contractor's knowledge, information, and belief, be free and clear of liens, claims, security interests, or encumbrances, in favor of the Contractor, Subcontractors, suppliers, or other persons or entities that provided labor, materials, and equipment relating to the Work.

§ 9.4 Certificates for Payment

§ 9.4.1 The Architect will, within seven days after receipt of the Contractor's Application for Payment, either (1) issue to the Owner a Certificate for Payment in the full amount of the Application for Payment, with a copy to the Contractor; or (2) issue to the Owner a Certificate for Payment for such amount as the Architect determines is properly due, and notify the Contractor and Owner of the Architect's reasons for withholding certification in part as provided in Section 9.5.1; or (3) withhold certification of the entire Application for Payment, and notify the Contractor and Owner of the Architect's reason for withholding certification in whole as provided in Section 9.5.1.

§ 9.4.2 The issuance of a Certificate for Payment will constitute a representation by the Architect to the Owner, based on the Architect's evaluation of the Work and the data in the Application for Payment, that, to the best of the Architect's knowledge, information, and belief, the Work has progressed to the point indicated, the quality of the Work is in accordance with the Contract Documents, and that the Contractor is entitled to payment in the amount certified. The foregoing representations are subject to an evaluation of the Work for conformance with the Contract Documents upon Substantial Completion, to results of subsequent tests and inspections, to correction of minor deviations from the Contract Documents prior to completion, and to specific qualifications expressed by the Architect. However, the issuance of a Certificate for Payment will not be a representation that the Architect has (1) made exhaustive or continuous on-site inspections to check the quality or quantity of the Work; (2) reviewed construction means, methods, techniques, sequences, or procedures; (3) reviewed copies of requisitions received from Subcontractors and suppliers and other data requested by the Owner to substantiate the Contractor's right to payment; or (4) made examination to ascertain how or for what purpose the Contractor has used money previously paid on account of the Contract Sum.

§ 9.5 Decisions to Withhold Certification

§ 9.5.1 The Architect may withhold a Certificate for Payment in whole or in part, to the extent reasonably necessary to protect the Owner, if in the Architect's opinion the representations to the Owner required by Section 9.4.2 cannot be made. If the Architect is unable to certify payment in the amount of the Application, the Architect will notify the Contractor and Owner as provided in Section 9.4.1. If the Contractor and Architect cannot agree on a revised amount, the Architect will promptly issue a Certificate for Payment for the amount for which the Architect is able to make such representations to the Owner. The Architect may also withhold a Certificate for Payment or, because of subsequently discovered evidence, may nullify the whole or a part of a Certificate for Payment previously issued, to such extent as may be necessary in the Architect's opinion to protect the Owner from loss for which the Contractor is responsible, including loss resulting from acts and omissions described in Section 3.3.2, because of

- .1 defective Work not remedied;
- .2 third party claims filed or reasonable evidence indicating probable filing of such claims, unless security acceptable to the Owner is provided by the Contractor;
- .3 failure of the Contractor to make payments properly to Subcontractors or suppliers for labor, materials or equipment;
- .4 reasonable evidence that the Work cannot be completed for the unpaid balance of the Contract Sum;

- .5 damage to the Owner or a Separate Contractor;
- .6 reasonable evidence that the Work will not be completed within the Contract Time, and that the unpaid balance would not be adequate to cover actual or liquidated damages for the anticipated delay; or
- .7 repeated failure to carry out the Work in accordance with the Contract Documents.

§ 9.5.2 When either party disputes the Architect's decision regarding a Certificate for Payment under Section 9.5.1, in whole or in part, that party may submit a Claim in accordance with Article 15.

§ 9.5.3 When the reasons for withholding certification are removed, certification will be made for amounts previously withheld.

§ 9.5.4 If the Architect withholds certification for payment under Section 9.5.1.3, the Owner may, at its sole option, issue joint checks to the Contractor and to any Subcontractor or supplier to whom the Contractor failed to make payment for Work properly performed or material or equipment suitably delivered. If the Owner makes payments by joint check, the Owner shall notify the Architect and the Contractor shall reflect such payment on its next Application for Payment.

§ 9.6 Progress Payments

§ 9.6.1 After the Architect has issued a Certificate for Payment, the Owner shall make payment in the manner and within the time provided in the Contract Documents, and shall so notify the Architect.

§ 9.6.2 The Contractor shall pay each Subcontractor, no later than seven days after receipt of payment from the Owner, the amount to which the Subcontractor is entitled, reflecting percentages actually retained from payments to the Contractor on account of the Subcontractor's portion of the Work. The Contractor shall, by appropriate agreement with each Subcontractor, require each Subcontractor to make payments to Sub-subcontractors in a similar manner.

§ 9.6.3 The Architect will, on request, furnish to a Subcontractor, if practicable, information regarding percentages of completion or amounts applied for by the Contractor and action taken thereon by the Architect and Owner on account of portions of the Work done by such Subcontractor.

§ 9.6.4 The Owner has the right to request written evidence from the Contractor that the Contractor has properly paid Subcontractors and suppliers amounts paid by the Owner to the Contractor for subcontracted Work. If the Contractor fails to furnish such evidence within seven days, the Owner shall have the right to contact Subcontractors and suppliers to ascertain whether they have been properly paid. Neither the Owner nor Architect shall have an obligation to pay, or to see to the payment of money to, a Subcontractor or supplier, except as may otherwise be required by law.

§ 9.6.5 The Contractor's payments to suppliers shall be treated in a manner similar to that provided in Sections 9.6.2, 9.6.3 and 9.6.4.

§ 9.6.6 A Certificate for Payment, a progress payment, or partial or entire use or occupancy of the Project by the Owner shall not constitute acceptance of Work not in accordance with the Contract Documents.

§ 9.6.7 Unless the Contractor provides the Owner with a payment bond in the full penal sum of the Contract Sum, payments received by the Contractor for Work properly performed by Subcontractors or provided by suppliers shall be held by the Contractor for those Subcontractors or suppliers who performed Work or furnished materials, or both, under contract with the Contractor for which payment was made by the Owner. Nothing contained herein shall require money to be placed in a separate account and not commingled with money of the Contractor, create any fiduciary liability or tort liability on the part of the Contractor for breach of trust, or entitle any person or entity to an award of punitive damages against the Contractor for breach of the requirements of this provision.

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

§ 9.7 Failure of Payment

If the Architect does not issue a Certificate for Payment, through no fault of the Contractor, within seven days after receipt of the Contractor's Application for Payment, or if the Owner does not pay the Contractor within seven days after the date established in the Contract Documents, the amount certified by the Architect or awarded by binding dispute resolution, then the Contractor may, upon seven additional days' notice to the Owner and Architect, stop the Work until payment of the amount owing has been received. The Contract Time shall be extended appropriately and the Contract Sum shall be increased by the amount of the Contractor's reasonable costs of shutdown, delay and start-up, plus interest as provided for in the Contract Documents.

§ 9.8 Substantial Completion

§ 9.8.1 Substantial Completion is the stage in the progress of the Work when the Work or designated portion thereof is sufficiently complete in accordance with the Contract Documents so that the Owner can occupy or utilize the Work for its intended use.

§ 9.8.2 When the Contractor considers that the Work, or a portion thereof which the Owner agrees to accept separately, is substantially complete, the Contractor shall prepare and submit to the Architect a comprehensive list of items to be completed or corrected prior to final payment. Failure to include an item on such list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents.

§ 9.8.3 Upon receipt of the Contractor's list, the Architect will make an inspection to determine whether the Work or designated portion thereof is substantially complete. If the Architect's inspection discloses any item, whether or not included on the Contractor's list, which is not sufficiently complete in accordance with the Contract Documents so that the Owner can occupy or utilize the Work or designated portion thereof for its intended use, the Contractor shall, before issuance of the Certificate of Substantial Completion, complete or correct such item upon notification by the Architect. In such case, the Contractor shall then submit a request for another inspection by the Architect to determine Substantial Completion.

§ 9.8.4 When the Work or designated portion thereof is substantially complete, the Architect will prepare a Certificate of Substantial Completion that shall establish the date of Substantial Completion; establish responsibilities of the Owner and Contractor for security, maintenance, heat, utilities, damage to the Work and insurance; and fix the time within which the Contractor shall finish all items on the list accompanying the Certificate. Warranties required by the Contract Documents shall commence on the date of Substantial Completion of the Work or designated portion thereof unless otherwise provided in the Certificate of Substantial Completion.

§ 9.8.5 The Certificate of Substantial Completion shall be submitted to the Owner and Contractor for their written acceptance of responsibilities assigned to them in the Certificate. Upon such acceptance, and consent of surety if any, the Owner shall make payment of retainage applying to the Work or designated portion thereof. Such payment shall be adjusted for Work that is incomplete or not in accordance with the requirements of the Contract Documents.

§ 9.9 Partial Occupancy or Use

§ 9.9.1 The Owner may occupy or use any completed or partially completed portion of the Work at any stage when such portion is designated by separate agreement with the Contractor, provided such occupancy or use is consented to by the insurer and authorized by public authorities having jurisdiction over the Project. Such partial occupancy or use may commence whether or not the portion is substantially complete, provided the Owner and Contractor have accepted in writing the responsibilities assigned to each of them for payments, retainage, if any, security, maintenance, heat, utilities, damage to the Work and insurance, and have agreed in writing concerning the period for correction of the Work and commencement of warranties required by the Contract Documents. When the Contractor considers a portion substantially complete, the Contractor shall prepare and submit a list to the Architect as provided under Section 9.8.2. Consent of the Contractor to partial occupancy or use shall not be unreasonably withheld. The stage of the progress of the Work shall be determined by written agreement between the Owner and Contractor or, if no agreement is reached, by decision of the Architect.

§ 9.9.2 Immediately prior to such partial occupancy or use, the Owner, Contractor, and Architect shall jointly inspect the area to be occupied or portion of the Work to be used in order to determine and record the condition of the Work.

§ 9.9.3 Unless otherwise agreed upon, partial occupancy or use of a portion or portions of the Work shall not constitute acceptance of Work not complying with the requirements of the Contract Documents.

§ 9.10 Final Completion and Final Payment

§ 9.10.1 Upon receipt of the Contractor's notice that the Work is ready for final inspection and acceptance and upon receipt of a final Application for Payment, the Architect will promptly make such inspection. When the Architect finds the Work acceptable under the Contract Documents and the Contract fully performed, the Architect will promptly issue a final Certificate for Payment stating that to the best of the Architect's knowledge, information and belief, and on the basis of the Architect's on-site visits and inspections, the Work has been completed in accordance with the Contract Documents and that the entire balance found to be due the Contractor and noted in the final Certificate is due and payable. The Architect's final Certificate for Payment will constitute a further representation that conditions listed in Section 9.10.2 as precedent to the Contractor's being entitled to final payment have been fulfilled.

§ 9.10.2 Neither final payment nor any remaining retained percentage shall become due until the Contractor submits to the Architect (1) an affidavit that payrolls, bills for materials and equipment, and other indebtedness connected with the Work for which the Owner or the Owner's property might be responsible or encumbered (less amounts withheld by Owner) have been paid or otherwise satisfied, (2) a certificate evidencing that insurance required by the Contract Documents to remain in force after final payment is currently in effect, (3) a written statement that the Contractor knows of no reason that the insurance will not be renewable to cover the period required by the Contract Documents, (4) consent of surety, if any, to final payment, (5) documentation of any special warranties, such as manufacturers' warranties or specific Subcontractor warranties, and (6) if required by the Owner, other data establishing payment or satisfaction of obligations, such as receipts and releases and waivers of liens, claims, security interests, or encumbrances arising out of the Contract, to the extent and in such form as may be designated by the Owner. If a Subcontractor refuses to furnish a release or waiver required by the Owner, the Contractor may furnish a bond satisfactory to the Owner to indemnify the Owner against such lien, claim, security interest, or encumbrance. If a lien, claim, security interest, or encumbrance remains unsatisfied after payments are made, the Contractor shall refund to the Owner all money that the Owner may be compelled to pay in discharging the lien, claim, security interest, or encumbrance, including all costs and reasonable attorneys' fees.

§ 9.10.3 If, after Substantial Completion of the Work, final completion thereof is materially delayed through no fault of the Contractor or by issuance of Change Orders affecting final completion, and the Architect so confirms, the Owner shall, upon application by the Contractor and certification by the Architect, and without terminating the Contract, make payment of the balance due for that portion of the Work fully completed, corrected, and accepted. If the remaining balance for Work not fully completed or corrected is less than retainage stipulated in the Contract Documents, and if bonds have been furnished, the written consent of the surety to payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by the Contractor to the Architect prior to certification of such payment. Such payment shall be made under terms and conditions governing final payment, except that it shall not constitute a waiver of Claims.

§ 9.10.4 The making of final payment shall constitute a waiver of Claims by the Owner except those arising from

- .1 liens, Claims, security interests, or encumbrances arising out of the Contract and unsettled;
- .2 failure of the Work to comply with the requirements of the Contract Documents;
- .3 terms of special warranties required by the Contract Documents; or
- .4 audits performed by the Owner, if permitted by the Contract Documents, after final payment.

§ 9.10.5 Acceptance of final payment by the Contractor, a Subcontractor, or a supplier, shall constitute a waiver of claims by that payee except those previously made in writing and identified by that payee as unsettled at the time of final Application for Payment.

ARTICLE 10 PROTECTION OF PERSONS AND PROPERTY

§ 10.1 Safety Precautions and Programs

The Contractor shall be responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the performance of the Contract.

§ 10.2 Safety of Persons and Property

§ 10.2.1 The Contractor shall take reasonable precautions for safety of, and shall provide reasonable protection to prevent damage, injury, or loss to

- .1 employees on the Work and other persons who may be affected thereby;

- .2 the Work and materials and equipment to be incorporated therein, whether in storage on or off the site, under care, custody, or control of the Contractor, a Subcontractor, or a Sub-subcontractor; and
- .3 other property at the site or adjacent thereto, such as trees, shrubs, lawns, walks, pavements, roadways, structures, and utilities not designated for removal, relocation, or replacement in the course of construction.

§ 10.2.2 The Contractor shall comply with, and give notices required by applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities, bearing on safety of persons or property or their protection from damage, injury, or loss.

§ 10.2.3 The Contractor shall implement, erect, and maintain, as required by existing conditions and performance of the Contract, reasonable safeguards for safety and protection, including posting danger signs and other warnings against hazards; promulgating safety regulations; and notifying the owners and users of adjacent sites and utilities of the safeguards.

§ 10.2.4 When use or storage of explosives or other hazardous materials or equipment, or unusual methods are necessary for execution of the Work, the Contractor shall exercise utmost care and carry on such activities under supervision of properly qualified personnel.

§ 10.2.5 The Contractor shall promptly remedy damage and loss (other than damage or loss insured under property insurance required by the Contract Documents) to property referred to in Sections 10.2.1.2 and 10.2.1.3 caused in whole or in part by the Contractor, a Subcontractor, a Sub-subcontractor, or anyone directly or indirectly employed by any of them, or by anyone for whose acts they may be liable and for which the Contractor is responsible under Sections 10.2.1.2 and 10.2.1.3. The Contractor may make a Claim for the cost to remedy the damage or loss to the extent such damage or loss is attributable to acts or omissions of the Owner or Architect or anyone directly or indirectly employed by either of them, or by anyone for whose acts either of them may be liable, and not attributable to the fault or negligence of the Contractor. The foregoing obligations of the Contractor are in addition to the Contractor's obligations under Section 3.18.

§ 10.2.6 The Contractor shall designate a responsible member of the Contractor's organization at the site whose duty shall be the prevention of accidents. This person shall be the Contractor's superintendent unless otherwise designated by the Contractor in writing to the Owner and Architect.

§ 10.2.7 The Contractor shall not permit any part of the construction or site to be loaded so as to cause damage or create an unsafe condition.

§ 10.2.8 Injury or Damage to Person or Property

If either party suffers injury or damage to person or property because of an act or omission of the other party, or of others for whose acts such party is legally responsible, notice of the injury or damage, whether or not insured, shall be given to the other party within a reasonable time not exceeding 21 days after discovery. The notice shall provide sufficient detail to enable the other party to investigate the matter.

§ 10.3 Hazardous Materials and Substances

§ 10.3.1 The Contractor is responsible for compliance with any requirements included in the Contract Documents regarding hazardous materials or substances. If the Contractor encounters a hazardous material or substance not addressed in the Contract Documents and if reasonable precautions will be inadequate to prevent foreseeable bodily injury or death to persons resulting from a material or substance, including but not limited to asbestos or polychlorinated biphenyl (PCB), encountered on the site by the Contractor, the Contractor shall, upon recognizing the condition, immediately stop Work in the affected area and notify the Owner and Architect of the condition.

§ 10.3.2 Upon receipt of the Contractor's notice, the Owner shall obtain the services of a licensed laboratory to verify the presence or absence of the material or substance reported by the Contractor and, in the event such material or substance is found to be present, to cause it to be rendered harmless. Unless otherwise required by the Contract Documents, the Owner shall furnish in writing to the Contractor and Architect the names and qualifications of persons or entities who are to perform tests verifying the presence or absence of the material or substance or who are to perform the task of removal or safe containment of the material or substance. The Contractor and the Architect will promptly reply to the Owner in writing stating whether or not either has reasonable objection to the persons or entities

proposed by the Owner. If either the Contractor or Architect has an objection to a person or entity proposed by the Owner, the Owner shall propose another to whom the Contractor and the Architect have no reasonable objection. When the material or substance has been rendered harmless, Work in the affected area shall resume upon written agreement of the Owner and Contractor. By Change Order, the Contract Time shall be extended appropriately and the Contract Sum shall be increased by the amount of the Contractor's reasonable additional costs of shutdown, delay, and start-up.

§ 10.3.3 To the fullest extent permitted by law, the Owner shall indemnify and hold harmless the Contractor, Subcontractors, Architect, Architect's consultants, and agents and employees of any of them from and against claims, damages, losses, and expenses, including but not limited to attorneys' fees, arising out of or resulting from performance of the Work in the affected area if in fact the material or substance presents the risk of bodily injury or death as described in Section 10.3.1 and has not been rendered harmless, provided that such claim, damage, loss, or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself), except to the extent that such damage, loss, or expense is due to the fault or negligence of the party seeking indemnity.

§ 10.3.4 The Owner shall not be responsible under this Section 10.3 for hazardous materials or substances the Contractor brings to the site unless such materials or substances are required by the Contract Documents. The Owner shall be responsible for hazardous materials or substances required by the Contract Documents, except to the extent of the Contractor's fault or negligence in the use and handling of such materials or substances.

§ 10.3.5 The Contractor shall reimburse the Owner for the cost and expense the Owner incurs (1) for remediation of hazardous materials or substances the Contractor brings to the site and negligently handles, or (2) where the Contractor fails to perform its obligations under Section 10.3.1, except to the extent that the cost and expense are due to the Owner's fault or negligence.

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

§ 10.4 Emergencies

In an emergency affecting safety of persons or property, the Contractor shall act, at the Contractor's discretion, to prevent threatened damage, injury, or loss. Additional compensation or extension of time claimed by the Contractor on account of an emergency shall be determined as provided in Article 15 and Article 7.

ARTICLE 11 INSURANCE AND BONDS

§ 11.1 Contractor's Insurance and Bonds

§ 11.1.1 The Contractor shall purchase and maintain insurance of the types and limits of liability, containing the endorsements, and subject to the terms and conditions, as described in the Agreement or elsewhere in the Contract Documents. The Contractor shall purchase and maintain the required insurance from an insurance company or insurance companies lawfully authorized to issue insurance in the jurisdiction where the Project is located. The Owner, Architect, and Architect's consultants shall be named as additional insureds under the Contractor's commercial general liability policy or as otherwise described in the Contract Documents.

§ 11.1.2 The Contractor shall provide surety bonds of the types, for such penal sums, and subject to such terms and conditions as required by the Contract Documents. The Contractor shall purchase and maintain the required bonds from a company or companies lawfully authorized to issue surety bonds in the jurisdiction where the Project is located.

§ 11.1.3 Upon the request of any person or entity appearing to be a potential beneficiary of bonds covering payment of obligations arising under the Contract, the Contractor shall promptly furnish a copy of the bonds or shall authorize a copy to be furnished.

§ 11.1.4 Notice of Cancellation or Expiration of Contractor's Required Insurance. Within three (3) business days of the date the Contractor becomes aware of an impending or actual cancellation or expiration of any insurance required by the Contract Documents, the Contractor shall provide notice to the Owner of such impending or actual cancellation or expiration. Upon receipt of notice from the Contractor, the Owner shall, unless the lapse in coverage arises from an act or omission of the Owner, have the right to stop the Work until the lapse in coverage has been cured by the

procurement of replacement coverage by the Contractor. The furnishing of notice by the Contractor shall not relieve the Contractor of any contractual obligation to provide any required coverage.

§ 11.2 Owner's Insurance

§ 11.2.1 The Owner shall purchase and maintain insurance of the types and limits of liability, containing the endorsements, and subject to the terms and conditions, as described in the Agreement or elsewhere in the Contract Documents. The Owner shall purchase and maintain the required insurance from an insurance company or insurance companies lawfully authorized to issue insurance in the jurisdiction where the Project is located.

§ 11.2.2 Failure to Purchase Required Property Insurance. If the Owner fails to purchase and maintain the required property insurance, with all of the coverages and in the amounts described in the Agreement or elsewhere in the Contract Documents, the Owner shall inform the Contractor in writing prior to commencement of the Work. Upon receipt of notice from the Owner, the Contractor may delay commencement of the Work and may obtain insurance that will protect the interests of the Contractor, Subcontractors, and Sub-Subcontractors in the Work. When the failure to provide coverage has been cured or resolved, the Contract Sum and Contract Time shall be equitably adjusted. In the event the Owner fails to procure coverage, the Owner waives all rights against the Contractor, Subcontractors, and Sub-subcontractors to the extent the loss to the Owner would have been covered by the insurance to have been procured by the Owner. The cost of the insurance shall be charged to the Owner by a Change Order. If the Owner does not provide written notice, and the Contractor is damaged by the failure or neglect of the Owner to purchase or maintain the required insurance, the Owner shall reimburse the Contractor for all reasonable costs and damages attributable thereto.

§ 11.2.3 Notice of Cancellation or Expiration of Owner's Required Property Insurance. Within three (3) business days of the date the Owner becomes aware of an impending or actual cancellation or expiration of any property insurance required by the Contract Documents, the Owner shall provide notice to the Contractor of such impending or actual cancellation or expiration. Unless the lapse in coverage arises from an act or omission of the Contractor: (1) the Contractor, upon receipt of notice from the Owner, shall have the right to stop the Work until the lapse in coverage has been cured by the procurement of replacement coverage by either the Owner or the Contractor; (2) the Contract Time and Contract Sum shall be equitably adjusted; and (3) the Owner waives all rights against the Contractor, Subcontractors, and Sub-subcontractors to the extent any loss to the Owner would have been covered by the insurance had it not expired or been cancelled. If the Contractor purchases replacement coverage, the cost of the insurance shall be charged to the Owner by an appropriate Change Order. The furnishing of notice by the Owner shall not relieve the Owner of any contractual obligation to provide required insurance.

§ 11.3 Waivers of Subrogation

§ 11.3.1 The Owner and Contractor waive all rights against (1) each other and any of their subcontractors, sub-subcontractors, agents, and employees, each of the other; (2) the Architect and Architect's consultants; and (3) Separate Contractors, if any, and any of their subcontractors, sub-subcontractors, agents, and employees, for damages caused by fire, or other causes of loss, to the extent those losses are covered by property insurance required by the Agreement or other property insurance applicable to the Project, except such rights as they have to proceeds of such insurance. The Owner or Contractor, as appropriate, shall require similar written waivers in favor of the individuals and entities identified above from the Architect, Architect's consultants, Separate Contractors, subcontractors, and sub-subcontractors. The policies of insurance purchased and maintained by each person or entity agreeing to waive claims pursuant to this section 11.3.1 shall not prohibit this waiver of subrogation. This waiver of subrogation shall be effective as to a person or entity (1) even though that person or entity would otherwise have a duty of indemnification, contractual or otherwise, (2) even though that person or entity did not pay the insurance premium directly or indirectly, or (3) whether or not the person or entity had an insurable interest in the damaged property.

§ 11.3.2 If during the Project construction period the Owner insures properties, real or personal or both, at or adjacent to the site by property insurance under policies separate from those insuring the Project, or if after final payment property insurance is to be provided on the completed Project through a policy or policies other than those insuring the Project during the construction period, to the extent permissible by such policies, the Owner waives all rights in accordance with the terms of Section 11.3.1 for damages caused by fire or other causes of loss covered by this separate property insurance.

§ 11.4 Loss of Use, Business Interruption, and Delay in Completion Insurance

The Owner, at the Owner's option, may purchase and maintain insurance that will protect the Owner against loss of use of the Owner's property, or the inability to conduct normal operations, due to fire or other causes of loss. The Owner waives all rights of action against the Contractor and Architect for loss of use of the Owner's property, due to fire or other hazards however caused.

§11.5 Adjustment and Settlement of Insured Loss

§ 11.5.1 A loss insured under the property insurance required by the Agreement shall be adjusted by the Owner as fiduciary and made payable to the Owner as fiduciary for the insureds, as their interests may appear, subject to requirements of any applicable mortgagee clause and of Section 11.5.2. The Owner shall pay the Architect and Contractor their just shares of insurance proceeds received by the Owner, and by appropriate agreements the Architect and Contractor shall make payments to their consultants and Subcontractors in similar manner.

§ 11.5.2 Prior to settlement of an insured loss, the Owner shall notify the Contractor of the terms of the proposed settlement as well as the proposed allocation of the insurance proceeds. The Contractor shall have 14 days from receipt of notice to object to the proposed settlement or allocation of the proceeds. If the Contractor does not object, the Owner shall settle the loss and the Contractor shall be bound by the settlement and allocation. Upon receipt, the Owner shall deposit the insurance proceeds in a separate account and make the appropriate distributions. Thereafter, if no other agreement is made or the Owner does not terminate the Contract for convenience, the Owner and Contractor shall execute a Change Order for reconstruction of the damaged or destroyed Work in the amount allocated for that purpose. If the Contractor timely objects to either the terms of the proposed settlement or the allocation of the proceeds, the Owner may proceed to settle the insured loss, and any dispute between the Owner and Contractor arising out of the settlement or allocation of the proceeds shall be resolved pursuant to Article 15. Pending resolution of any dispute, the Owner may issue a Construction Change Directive for the reconstruction of the damaged or destroyed Work.

ARTICLE 12 UNCOVERING AND CORRECTION OF WORK

§ 12.1 Uncovering of Work

§ 12.1.1 If a portion of the Work is covered contrary to the Architect's request or to requirements specifically expressed in the Contract Documents, it must, if requested in writing by the Architect, be uncovered for the Architect's examination and be replaced at the Contractor's expense without change in the Contract Time.

§ 12.1.2 If a portion of the Work has been covered that the Architect has not specifically requested to examine prior to its being covered, the Architect may request to see such Work and it shall be uncovered by the Contractor. If such Work is in accordance with the Contract Documents, the Contractor shall be entitled to an equitable adjustment to the Contract Sum and Contract Time as may be appropriate. If such Work is not in accordance with the Contract Documents, the costs of uncovering the Work, and the cost of correction, shall be at the Contractor's expense.

§ 12.2 Correction of Work

§ 12.2.1 Before Substantial Completion

The Contractor shall promptly correct Work rejected by the Architect or failing to conform to the requirements of the Contract Documents, discovered before Substantial Completion and whether or not fabricated, installed or completed. Costs of correcting such rejected Work, including additional testing and inspections, the cost of uncovering and replacement, and compensation for the Architect's services and expenses made necessary thereby, shall be at the Contractor's expense.

§ 12.2.2 After Substantial Completion

§ 12.2.2.1 In addition to the Contractor's obligations under Section 3.5, if, within one year after the date of Substantial Completion of the Work or designated portion thereof or after the date for commencement of warranties established under Section 9.9.1, or by terms of any applicable special warranty required by the Contract Documents, any of the Work is found to be not in accordance with the requirements of the Contract Documents, the Contractor shall correct it promptly after receipt of notice from the Owner to do so, unless the Owner has previously given the Contractor a written acceptance of such condition. The Owner shall give such notice promptly after discovery of the condition. During the one-year period for correction of Work, if the Owner fails to notify the Contractor and give the Contractor an opportunity to make the correction, the Owner waives the rights to require correction by the Contractor and to make a claim for breach of warranty. If the Contractor fails to correct nonconforming Work within a reasonable time during that period after receipt of notice from the Owner or Architect, the Owner may correct it in accordance with Section 2.5.

§ 12.2.2.2 The one-year period for correction of Work shall be extended with respect to portions of Work first performed after Substantial Completion by the period of time between Substantial Completion and the actual completion of that portion of the Work.

§ 12.2.2.3 The one-year period for correction of Work shall not be extended by corrective Work performed by the Contractor pursuant to this Section 12.2.

§ 12.2.3 The Contractor shall remove from the site portions of the Work that are not in accordance with the requirements of the Contract Documents and are neither corrected by the Contractor nor accepted by the Owner.

§ 12.2.4 The Contractor shall bear the cost of correcting destroyed or damaged construction of the Owner or Separate Contractors, whether completed or partially completed, caused by the Contractor's correction or removal of Work that is not in accordance with the requirements of the Contract Documents.

§ 12.2.5 Nothing contained in this Section 12.2 shall be construed to establish a period of limitation with respect to other obligations the Contractor has under the Contract Documents. Establishment of the one-year period for correction of Work as described in Section 12.2.2 relates only to the specific obligation of the Contractor to correct the Work, and has no relationship to the time within which the obligation to comply with the Contract Documents may be sought to be enforced, nor to the time within which proceedings may be commenced to establish the Contractor's liability with respect to the Contractor's obligations other than specifically to correct the Work.

§ 12.3 Acceptance of Nonconforming Work

If the Owner prefers to accept Work that is not in accordance with the requirements of the Contract Documents, the Owner may do so instead of requiring its removal and correction, in which case the Contract Sum will be reduced as appropriate and equitable. Such adjustment shall be effected whether or not final payment has been made.

ARTICLE 13 MISCELLANEOUS PROVISIONS

§ 13.1 Governing Law

The Contract shall be governed by the law of the place where the Project is located, excluding that jurisdiction's choice of law rules. If the parties have selected arbitration as the method of binding dispute resolution, the Federal Arbitration Act shall govern Section 15.4.

§ 13.2 Successors and Assigns

§ 13.2.1 The Owner and Contractor respectively bind themselves, their partners, successors, assigns, and legal representatives to covenants, agreements, and obligations contained in the Contract Documents. Except as provided in Section 13.2.2, neither party to the Contract shall assign the Contract as a whole without written consent of the other. If either party attempts to make an assignment without such consent, that party shall nevertheless remain legally responsible for all obligations under the Contract.

§ 13.2.2 The Owner may, without consent of the Contractor, assign the Contract to a lender providing construction financing for the Project, if the lender assumes the Owner's rights and obligations under the Contract Documents. The Contractor shall execute all consents reasonably required to facilitate the assignment.

§ 13.3 Rights and Remedies

§ 13.3.1 Duties and obligations imposed by the Contract Documents and rights and remedies available thereunder shall be in addition to and not a limitation of duties, obligations, rights, and remedies otherwise imposed or available by law.

§ 13.3.2 No action or failure to act by the Owner, Architect, or Contractor shall constitute a waiver of a right or duty afforded them under the Contract, nor shall such action or failure to act constitute approval of or acquiescence in a breach thereunder, except as may be specifically agreed upon in writing.

§ 13.4 Tests and Inspections

§ 13.4.1 Tests, inspections, and approvals of portions of the Work shall be made as required by the Contract Documents and by applicable laws, statutes, ordinances, codes, rules, and regulations or lawful orders of public authorities. Unless otherwise provided, the Contractor shall make arrangements for such tests, inspections, and

approvals with an independent testing laboratory or entity acceptable to the Owner, or with the appropriate public authority, and shall bear all related costs of tests, inspections, and approvals. The Contractor shall give the Architect timely notice of when and where tests and inspections are to be made so that the Architect may be present for such procedures. The Owner shall bear costs of tests, inspections, or approvals that do not become requirements until after bids are received or negotiations concluded. The Owner shall directly arrange and pay for tests, inspections, or approvals where building codes or applicable laws or regulations so require.

§ 13.4.2 If the Architect, Owner, or public authorities having jurisdiction determine that portions of the Work require additional testing, inspection, or approval not included under Section 13.4.1, the Architect will, upon written authorization from the Owner, instruct the Contractor to make arrangements for such additional testing, inspection, or approval, by an entity acceptable to the Owner, and the Contractor shall give timely notice to the Architect of when and where tests and inspections are to be made so that the Architect may be present for such procedures. Such costs, except as provided in Section 13.4.3, shall be at the Owner's expense.

§ 13.4.3 If procedures for testing, inspection, or approval under Sections 13.4.1 and 13.4.2 reveal failure of the portions of the Work to comply with requirements established by the Contract Documents, all costs made necessary by such failure, including those of repeated procedures and compensation for the Architect's services and expenses, shall be at the Contractor's expense.

§ 13.4.4 Required certificates of testing, inspection, or approval shall, unless otherwise required by the Contract Documents, be secured by the Contractor and promptly delivered to the Architect.

§ 13.4.5 If the Architect is to observe tests, inspections, or approvals required by the Contract Documents, the Architect will do so promptly and, where practicable, at the normal place of testing.

§ 13.4.6 Tests or inspections conducted pursuant to the Contract Documents shall be made promptly to avoid unreasonable delay in the Work.

§ 13.5 Interest

Payments due and unpaid under the Contract Documents shall bear interest from the date payment is due at the rate the parties agree upon in writing or, in the absence thereof, at the legal rate prevailing from time to time at the place where the Project is located.

ARTICLE 14 TERMINATION OR SUSPENSION OF THE CONTRACT

§ 14.1 Termination by the Contractor

§ 14.1.1 The Contractor may terminate the Contract if the Work is stopped for a period of 30 consecutive days through no act or fault of the Contractor, a Subcontractor, a Sub-subcontractor, their agents or employees, or any other persons or entities performing portions of the Work, for any of the following reasons:

- .1 Issuance of an order of a court or other public authority having jurisdiction that requires all Work to be stopped;
- .2 An act of government, such as a declaration of national emergency, that requires all Work to be stopped;
- .3 Because the Architect has not issued a Certificate for Payment and has not notified the Contractor of the reason for withholding certification as provided in Section 9.4.1, or because the Owner has not made payment on a Certificate for Payment within the time stated in the Contract Documents; or
- .4 The Owner has failed to furnish to the Contractor reasonable evidence as required by Section 2.2.

§ 14.1.2 The Contractor may terminate the Contract if, through no act or fault of the Contractor, a Subcontractor, a Sub-subcontractor, their agents or employees, or any other persons or entities performing portions of the Work, repeated suspensions, delays, or interruptions of the entire Work by the Owner as described in Section 14.3, constitute in the aggregate more than 100 percent of the total number of days scheduled for completion, or 120 days in any 365-day period, whichever is less.

§ 14.1.3 If one of the reasons described in Section 14.1.1 or 14.1.2 exists, the Contractor may, upon seven days' notice to the Owner and Architect, terminate the Contract and recover from the Owner payment for Work executed, as well as reasonable overhead and profit on Work not executed, and costs incurred by reason of such termination.

§ 14.1.4 If the Work is stopped for a period of 60 consecutive days through no act or fault of the Contractor, a Subcontractor, a Sub-subcontractor, or their agents or employees or any other persons or entities performing portions of the Work because the Owner has repeatedly failed to fulfill the Owner's obligations under the Contract Documents with respect to matters important to the progress of the Work, the Contractor may, upon seven additional days' notice to the Owner and the Architect, terminate the Contract and recover from the Owner as provided in Section 14.1.3.

§ 14.2 Termination by the Owner for Cause

§ 14.2.1 The Owner may terminate the Contract if the Contractor

- .1 repeatedly refuses or fails to supply enough properly skilled workers or proper materials;
- .2 fails to make payment to Subcontractors or suppliers in accordance with the respective agreements between the Contractor and the Subcontractors or suppliers;
- .3 repeatedly disregards applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of a public authority; or
- .4 otherwise is guilty of substantial breach of a provision of the Contract Documents.

§ 14.2.2 When any of the reasons described in Section 14.2.1 exist, and upon certification by the Architect that sufficient cause exists to justify such action, the Owner may, without prejudice to any other rights or remedies of the Owner and after giving the Contractor and the Contractor's surety, if any, seven days' notice, terminate employment of the Contractor and may, subject to any prior rights of the surety:

- .1 Exclude the Contractor from the site and take possession of all materials, equipment, tools, and construction equipment and machinery thereon owned by the Contractor;
- .2 Accept assignment of subcontracts pursuant to Section 5.4; and
- .3 Finish the Work by whatever reasonable method the Owner may deem expedient. Upon written request of the Contractor, the Owner shall furnish to the Contractor a detailed accounting of the costs incurred by the Owner in finishing the Work.

§ 14.2.3 When the Owner terminates the Contract for one of the reasons stated in Section 14.2.1, the Contractor shall not be entitled to receive further payment until the Work is finished.

§ 14.2.4 If the unpaid balance of the Contract Sum exceeds costs of finishing the Work, including compensation for the Architect's services and expenses made necessary thereby, and other damages incurred by the Owner and not expressly waived, such excess shall be paid to the Contractor. If such costs and damages exceed the unpaid balance, the Contractor shall pay the difference to the Owner. The amount to be paid to the Contractor or Owner, as the case may be, shall be certified by the Initial Decision Maker, upon application, and this obligation for payment shall survive termination of the Contract.

§ 14.3 Suspension by the Owner for Convenience

§ 14.3.1 The Owner may, without cause, order the Contractor in writing to suspend, delay or interrupt the Work, in whole or in part for such period of time as the Owner may determine.

§ 14.3.2 The Contract Sum and Contract Time shall be adjusted for increases in the cost and time caused by suspension, delay, or interruption under Section 14.3.1. Adjustment of the Contract Sum shall include profit. No adjustment shall be made to the extent

- .1 that performance is, was, or would have been, so suspended, delayed, or interrupted, by another cause for which the Contractor is responsible; or
- .2 that an equitable adjustment is made or denied under another provision of the Contract.

§ 14.4 Termination by the Owner for Convenience

§ 14.4.1 The Owner may, at any time, terminate the Contract for the Owner's convenience and without cause.

§ 14.4.2 Upon receipt of notice from the Owner of such termination for the Owner's convenience, the Contractor shall

- .1 cease operations as directed by the Owner in the notice;
- .2 take actions necessary, or that the Owner may direct, for the protection and preservation of the Work; and
- .3 except for Work directed to be performed prior to the effective date of termination stated in the notice, terminate all existing subcontracts and purchase orders and enter into no further subcontracts and purchase orders.

§ 14.4.3 In case of such termination for the Owner's convenience, the Owner shall pay the Contractor for Work properly executed; costs incurred by reason of the termination, including costs attributable to termination of Subcontracts; and the termination fee, if any, set forth in the Agreement.

ARTICLE 15 CLAIMS AND DISPUTES

§ 15.1 Claims

§ 15.1.1 Definition

A Claim is a demand or assertion by one of the parties seeking, as a matter of right, payment of money, a change in the Contract Time, or other relief with respect to the terms of the Contract. The term "Claim" also includes other disputes and matters in question between the Owner and Contractor arising out of or relating to the Contract. The responsibility to substantiate Claims shall rest with the party making the Claim. This Section 15.1.1 does not require the Owner to file a Claim in order to impose liquidated damages in accordance with the Contract Documents.

§ 15.1.2 Time Limits on Claims

The Owner and Contractor shall commence all Claims and causes of action against the other and arising out of or related to the Contract, whether in contract, tort, breach of warranty or otherwise, in accordance with the requirements of the binding dispute resolution method selected in the Agreement and within the period specified by applicable law, but in any case not more than 10 years after the date of Substantial Completion of the Work. The Owner and Contractor waive all Claims and causes of action not commenced in accordance with this Section 15.1.2.

§ 15.1.3 Notice of Claims

§ 15.1.3.1 Claims by either the Owner or Contractor, where the condition giving rise to the Claim is first discovered prior to expiration of the period for correction of the Work set forth in Section 12.2.2, shall be initiated by notice to the other party and to the Initial Decision Maker with a copy sent to the Architect, if the Architect is not serving as the Initial Decision Maker. Claims by either party under this Section 15.1.3.1 shall be initiated within 21 days after occurrence of the event giving rise to such Claim or within 21 days after the claimant first recognizes the condition giving rise to the Claim, whichever is later.

§ 15.1.3.2 Claims by either the Owner or Contractor, where the condition giving rise to the Claim is first discovered after expiration of the period for correction of the Work set forth in Section 12.2.2, shall be initiated by notice to the other party. In such event, no decision by the Initial Decision Maker is required.

§ 15.1.4 Continuing Contract Performance

§ 15.1.4.1 Pending final resolution of a Claim, except as otherwise agreed in writing or as provided in Section 9.7 and Article 14, the Contractor shall proceed diligently with performance of the Contract and the Owner shall continue to make payments in accordance with the Contract Documents.

§ 15.1.4.2 The Contract Sum and Contract Time shall be adjusted in accordance with the Initial Decision Maker's decision, subject to the right of either party to proceed in accordance with this Article 15. The Architect will issue Certificates for Payment in accordance with the decision of the Initial Decision Maker.

§ 15.1.5 Claims for Additional Cost

If the Contractor wishes to make a Claim for an increase in the Contract Sum, notice as provided in Section 15.1.3 shall be given before proceeding to execute the portion of the Work that is the subject of the Claim. Prior notice is not required for Claims relating to an emergency endangering life or property arising under Section 10.4.

§ 15.1.6 Claims for Additional Time

§ 15.1.6.1 If the Contractor wishes to make a Claim for an increase in the Contract Time, notice as provided in Section 15.1.3 shall be given. The Contractor's Claim shall include an estimate of cost and of probable effect of delay on progress of the Work. In the case of a continuing delay, only one Claim is necessary.

§ 15.1.6.2 If adverse weather conditions are the basis for a Claim for additional time, such Claim shall be documented by data substantiating that weather conditions were abnormal for the period of time, could not have been reasonably anticipated, and had an adverse effect on the scheduled construction.

§ 15.1.7 Waiver of Claims for Consequential Damages

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

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

This mutual waiver is applicable, without limitation, to all consequential damages due to either party's termination in accordance with Article 14. Nothing contained in this Section 15.1.7 shall be deemed to preclude assessment of liquidated damages, when applicable, in accordance with the requirements of the Contract Documents.

§ 15.2 Initial Decision

§ 15.2.1 Claims, excluding those where the condition giving rise to the Claim is first discovered after expiration of the period for correction of the Work set forth in Section 12.2.2 or arising under Sections 10.3, 10.4, and 11.5, shall be referred to the Initial Decision Maker for initial decision. The Architect will serve as the Initial Decision Maker, unless otherwise indicated in the Agreement. Except for those Claims excluded by this Section 15.2.1, an initial decision shall be required as a condition precedent to mediation of any Claim. If an initial decision has not been rendered within 30 days after the Claim has been referred to the Initial Decision Maker, the party asserting the Claim may demand mediation and binding dispute resolution without a decision having been rendered. Unless the Initial Decision Maker and all affected parties agree, the Initial Decision Maker will not decide disputes between the Contractor and persons or entities other than the Owner.

§ 15.2.2 The Initial Decision Maker will review Claims and within ten days of the receipt of a Claim take one or more of the following actions: (1) request additional supporting data from the claimant or a response with supporting data from the other party, (2) reject the Claim in whole or in part, (3) approve the Claim, (4) suggest a compromise, or (5) advise the parties that the Initial Decision Maker is unable to resolve the Claim if the Initial Decision Maker lacks sufficient information to evaluate the merits of the Claim or if the Initial Decision Maker concludes that, in the Initial Decision Maker's sole discretion, it would be inappropriate for the Initial Decision Maker to resolve the Claim.

§ 15.2.3 In evaluating Claims, the Initial Decision Maker may, but shall not be obligated to, consult with or seek information from either party or from persons with special knowledge or expertise who may assist the Initial Decision Maker in rendering a decision. The Initial Decision Maker may request the Owner to authorize retention of such persons at the Owner's expense.

§ 15.2.4 If the Initial Decision Maker requests a party to provide a response to a Claim or to furnish additional supporting data, such party shall respond, within ten days after receipt of the request, and shall either (1) provide a response on the requested supporting data, (2) advise the Initial Decision Maker when the response or supporting data will be furnished, or (3) advise the Initial Decision Maker that no supporting data will be furnished. Upon receipt of the response or supporting data, if any, the Initial Decision Maker will either reject or approve the Claim in whole or in part.

§ 15.2.5 The Initial Decision Maker will render an initial decision approving or rejecting the Claim, or indicating that the Initial Decision Maker is unable to resolve the Claim. This initial decision shall (1) be in writing; (2) state the reasons therefor; and (3) notify the parties and the Architect, if the Architect is not serving as the Initial Decision Maker, of any change in the Contract Sum or Contract Time or both. The initial decision shall be final and binding on the parties but subject to mediation and, if the parties fail to resolve their dispute through mediation, to binding dispute resolution.

§ 15.2.6 Either party may file for mediation of an initial decision at any time, subject to the terms of Section 15.2.6.1.

§ 15.2.6.1 Either party may, within 30 days from the date of receipt of an initial decision, demand in writing that the other party file for mediation. If such a demand is made and the party receiving the demand fails to file for mediation within 30 days after receipt thereof, then both parties waive their rights to mediate or pursue binding dispute resolution proceedings with respect to the initial decision.

§ 15.2.7 In the event of a Claim against the Contractor, the Owner may, but is not obligated to, notify the surety, if any, of the nature and amount of the Claim. If the Claim relates to a possibility of a Contractor's default, the Owner may, but is not obligated to, notify the surety and request the surety's assistance in resolving the controversy.

§ 15.2.8 If a Claim relates to or is the subject of a mechanic's lien, the party asserting such Claim may proceed in accordance with applicable law to comply with the lien notice or filing deadlines.

§ 15.3 Mediation

§ 15.3.1 Claims, disputes, or other matters in controversy arising out of or related to the Contract, except those waived as provided for in Sections 9.10.4, 9.10.5, and 15.1.7, shall be subject to mediation as a condition precedent to binding dispute resolution.

§ 15.3.2 The parties shall endeavor to resolve their Claims by mediation which, unless the parties mutually agree otherwise, shall be administered by the American Arbitration Association in accordance with its Construction Industry Mediation Procedures in effect on the date of the Agreement. A request for mediation shall be made in writing, delivered to the other party to the Contract, and filed with the person or entity administering the mediation. The request may be made concurrently with the filing of binding dispute resolution proceedings but, in such event, mediation shall proceed in advance of binding dispute resolution proceedings, which shall be stayed pending mediation for a period of 60 days from the date of filing, unless stayed for a longer period by agreement of the parties or court order. If an arbitration is stayed pursuant to this Section 15.3.2, the parties may nonetheless proceed to the selection of the arbitrator(s) and agree upon a schedule for later proceedings.

§ 15.3.3 Either party may, within 30 days from the date that mediation has been concluded without resolution of the dispute or 60 days after mediation has been demanded without resolution of the dispute, demand in writing that the other party file for binding dispute resolution. If such a demand is made and the party receiving the demand fails to file for binding dispute resolution within 60 days after receipt thereof, then both parties waive their rights to binding dispute resolution proceedings with respect to the initial decision.

§ 15.3.4 The parties shall share the mediator's fee and any filing fees equally. The mediation shall be held in the place where the Project is located, unless another location is mutually agreed upon. Agreements reached in mediation shall be enforceable as settlement agreements in any court having jurisdiction thereof.

§ 15.4 Arbitration

§ 15.4.1 If the parties have selected arbitration as the method for binding dispute resolution in the Agreement, any Claim subject to, but not resolved by, mediation shall be subject to arbitration which, unless the parties mutually agree otherwise, shall be administered by the American Arbitration Association in accordance with its Construction Industry Arbitration Rules in effect on the date of the Agreement. The Arbitration shall be conducted in the place where the Project is located, unless another location is mutually agreed upon. A demand for arbitration shall be made in writing, delivered to the other party to the Contract, and filed with the person or entity administering the arbitration. The party filing a notice of demand for arbitration must assert in the demand all Claims then known to that party on which arbitration is permitted to be demanded.

§ 15.4.1.1 A demand for arbitration shall be made no earlier than concurrently with the filing of a request for mediation, but in no event shall it be made after the date when the institution of legal or equitable proceedings based on the Claim would be barred by the applicable statute of limitations. For statute of limitations purposes, receipt of a written demand for arbitration by the person or entity administering the arbitration shall constitute the institution of legal or equitable proceedings based on the Claim.

§ 15.4.2 The award rendered by the arbitrator or arbitrators shall be final, and judgment may be entered upon it in accordance with applicable law in any court having jurisdiction thereof.

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

§ 15.4.4 Consolidation or Joinder

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

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

§ 15.4.4.3 The Owner and Contractor grant to any person or entity made a party to an arbitration conducted under this Section 15.4, whether by joinder or consolidation, the same rights of joinder and consolidation as those of the Owner and Contractor under this Agreement.

Additions and Deletions Report for

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PAGE 1

Vinton War Memorial Renovation

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Certification of Document's Authenticity
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I, W. Michael Woolwine, hereby certify, to the best of my knowledge, information and belief, that I created the attached final document simultaneously with its associated Additions and Deletions Report and this certification at 08:54:15 ET on 06/23/2025 under Order No. 4104245020 from AIA Contract Documents software and that in preparing the attached final document I made no changes to the original text of AIA® Document A201™ – 2017, General Conditions of the Contract for Construction, other than those additions and deletions shown in the associated Additions and Deletions Report.


(Signed)


(Title)


(Dated)