



ORANGEBURG-CALHOUN TECHNICAL COLLEGE
3250 ST. MATTHEWS RD.
ORANGEBURG, SC 29118
REQUEST FOR QUOTE

Project #: OCTC-FY24-1

Issue Date: July 11, 2024

Buyer: Scarlet Geddings

Phone: 803-535-1243

Pre-Bid Meeting: July 24, 2024 at 3:00 p.m.

Location: Gulbrandsen Conference Room, Building S

Open Date: August 14, 2024 at 2:00 p.m.

Public opening not held for quotes.

Purpose

It is the intent of the Orangeburg-Calhoun Technical College to solicit bids for Building R Canopy Repair

The College assumes that all work, repairs, parts replacement, inspections and testing will be done during the contractor's regular working hours. (7:00 a.m. – 5:00 p.m., Monday through Thursday and 7:00 a.m. – 2:00 p.m. on Fridays.)

Scope of Work

Base Bid: Modification of existing canopy, repairs to the brick veneer at canopy to wall termination and roof repairs.

Alternate Bid No. 1: Remove and Dispose of the existing gravel surfaced built-up roof down to the existing metal deck. Provide tapered insulation, gypsum cover board, and two ply modified bitumen roof system including sheet metal components and accessories as required to provide a complete watertight, warrantable roof assembly.

General Instruction

In the planning document, contractors will find SE Form 333 – Quote Form with Unit Prices, along with the terms of the contract, project drawings, provisions and specifications. SE-357 Labor and Material Payment Bond and SE-355 Payment Bond are required for this project. Contractors must provide quotes using the SE-333. Award will be made to the lowest responsive and responsible bidder.

All questions must be submitted in writing to the Procurement Office at geddingss@octech.edu. Amendments will be issued as necessary.

In addition to the contents specified in the contract, the successful vendor will be required to submit copies of any applicable licenses, a W-9 form, and a Certificate of Liability Insurance.

All Quotes must be returned by August 14, 2024 @ 2:00 p.m.

Scarlet Geddings, Purchasing Officer
Orangeburg-Calhoun Technical College, 3250 St. Matthews Road, Orangeburg, SC 29118
803-535-1243 phone * 803-535-1388 fax
geddingss@octech.edu

PROJECT MANUAL

For



OCTC – Orangeburg-Calhoun Technical College

OCTC – Building R Canopy Repair

College Project Number – OCTC-FY24-1

Prepared for

Orangeburg-Calhoun Technical College

3250 St Matthews Rd, Orangeburg, SC 29118

Prepared by



WM Project No. 2024-39

Construction Documents

Issued: June 7, 2024

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PROJECT NUMBER: OCTC-FY24-1

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SE-311**INVITATION FOR MINOR CONSTRUCTION QUOTES****AGENCY/OWNER:** OCTC - Orangeburg - Calhoun Technical College**PROJECT NAME:** OCTC - Building R Canopy Repair**PROJECT NUMBER:** OCTC-FY24-1 **CONSTRUCTION COST RANGE:** \$ 0.00 to \$ 50,000.00**PROJECT LOCATION:** 3250 St. Matthews Rd, Orangeburg, SC 29118**DESCRIPTION OF PROJECT:** Modification of the existing canopy, roof repairs, and brick masonry repairs.**QUOTE DUE DATE:** 8/14/24**TIME:** 2:00 PM**AGENCY PROJECT COORDINATOR:** Mr. Dean Felkel**EMAIL:** felkelrd@octech.edu**TELEPHONE:** 803-535-1330**DOCUMENTS MAY BE OBTAINED FROM:** WM Building Envelope Consultants by contacting Max Morrill at max@wmbeconsultants.com or (352) 397-8208**DOCUMENT DEPOSIT AMOUNT:** \$ _____ **IS DEPOSIT REFUNDABLE** Yes ☐ No ☐ N/A ☒**PERFORMANCE BOND REQUIRED?** Yes ☒ No ☐ **PAYMENT BOND REQUIRED?** Yes ☒ No ☐

Contractors must obtain Documents/Plans from the above listed source(s) to be listed as an official plan holder. All written communications with official plan holders & Contractors submitting quotes will be via email or website posting.

PUBLIC NOTICES: All notices (Notice of Award) shall be posted at the following location: _____**RIGHT TO PROTEST (SC Code § 11-35-4210) (This only applies to contracts exceeding \$50,000.)**

Any actual bidder, offeror, contractor or subcontractor who is aggrieved in connection with this solicitation or the intended award or award of a contract under this solicitation may protest to the State Engineer in accordance with Section 11-35-4210 at: CPO, Office of State Engineer, 1201 Main Street, Suite 600, Columbia, SC 29201. EMAIL: protest-ose@mso.sc.gov

All questions & correspondence concerning this Invitation shall be addressed to the A/E.

A/E NAME: WM Building Envelope Consultants, LLC**A/E CONTACT:** Max Morrill**EMAIL:** max@wmbeconsultants.com**TELEPHONE:** 352-397-8208**PRE-QUOTE CONFERENCE:** Yes ☒ No ☐ **DATE:** 7/24/2024 **TIME:** 3:00 PM**PRE-QUOTE PLACE:** Building S - Gulbrandsen Conference Room**QUOTE DELIVERY ADDRESSES:****HAND-DELIVERY:**

Attn: Scarlet Geddings, OCTech Purchasing
3250 St. Matthews Rd., Bldg. "A", Room 1019
Orangeburg, SC 29118

MAIL SERVICE:

Attn: Scarlet Geddings, OCTech Purchasing
3250 St. Matthews Rd., Bldg. "A", Room 1019
Orangeburg, SC 29118

IS PROJECT WITHIN AGENCY CONSTRUCTION CERTIFICATION? (Agency MUST check one) Yes ☒ No ☐**APPROVED BY:** _____ **DATE:** _____

(OSE Project Manager)

SE-333**QUOTE FORM WITH UNIT PRICES**

QUOTE SUBMITTED BY: _____
(Offeror's Name)

QUOTE SUBMITTED TO: OCTC - Orangeburg - Calhoun Technical College
(Agency's Name)

FOR: PROJECT NAME: OCTC - Building R Canopy Repair
PROJECT NUMBER: OCTC-FY24-1

OFFER

§ 1. In response to the Invitation for Minor Construction Quotes for the above-named Project, the undersigned **OFFEROR** proposes and agrees, if this Quote is accepted, to enter into a Contract with the Agency in the form included in the Solicitation Documents, and to perform all Work as specified or indicated in the Solicitation Documents, for the prices and within the time frames indicated in the Solicitation and in accordance with the other terms and conditions stated.

§ 2. **OFFEROR** acknowledges the receipt of the following Addenda to the Solicitation documents and has incorporated the effects of said Addenda into its Quote *(Check only boxes that apply.)*:

ADDENDA: ☐ #1 ☐ #2 ☐ #3 ☐ #4 ☐ #5

§ 3. **OFFEROR** agrees that this Quote, including all alternates, if any, may not be revoked or withdrawn after the opening of quotes, and shall remain open for acceptance for a period of **60** Days following the Quote Date, or for such longer period of time that **OFFEROR** may agree to in writing upon request of the Agency.

§ 4. **OFFEROR** agrees that the Date of Commencement of the Work shall be established in a Notice to Proceed to be issued by the Agency. Offeror agrees to substantially complete the Work within **60** Calendar Days from the Date of Commencement, subject to adjustments as provided in the Contract Documents.

§ 5. **OFFEROR** agrees that from the compensation to be paid, the Agency shall retain as Liquidated Damages the amount of \$ **200.00** for each calendar day the actual construction time required to achieve Substantial Completion exceeds the specified or adjusted Contract Time for Substantial Completion, as provided in the Contract Documents.

§ 6. **OFFEROR** herewith submits its offer to provide all labor, materials, equipment, tools of trades and labor, accessories, appliances, warranties and guarantees, and to pay all royalties, fee, permits, licenses and applicable taxes necessary to complete the following items of construction work:

§ 6.1 **BASE QUOTE** \$ _____
(enter BASE QUOTE in figures only)

§ 6.2 **ALT. No. 01 QUOTE** \$ _____
(enter Alt. No.01 QUOTE in figures only)

§ 6.3 **UNIT PRICES:** The following UNIT PRICES submitted by the OFFEROR indicate the amount to be added to or deducted from the CONTRACT SUM for each item-unit combination. UNIT PRICES include all costs to the Agency, including those for materials, labor, equipment, tools of trades and labor, fees, taxes, insurance, bonding, overhead, profit, etc. The Agency reserves the right to include or not to include any of the following UNIT PRICES in the Contract and to negotiate the UNIT PRICES with BIDDER prior to including in the Contract.

No.	ITEM	UNIT OF MEASURE	ADD	DEDUCT
<u>1.</u>	<u>100 BF Wood Blocking Replacement</u>	<u>BF</u>	<u>\$</u>	<u>\$</u>
<u>2.</u>	<u>50 SF Deteriorated Steel Deck Replacement</u>	<u>SF</u>	<u>\$</u>	<u>\$</u>

SC Contractor's License Number:_____**Classification(s) & Limits:**_____**Address:** _____

Telephone:_____**E-mail:**_____**This Quote is hereby submitted on behalf of the Offeror named above.****BY:**_____*(Signature of Offeror's Representative)*_____
*(Print or Type Name of Offeror's Representative)***TITLE:**_____**DATE:**_____

SE-377**MINOR CONSTRUCTION CONTRACT****AGENCY:** OCTC - Orangeburg - Calhoun Technical College**PROJECT NAME:** OCTC - Building R Canopy Repair**PROJECT NUMBER:** OCTC-FY24-1

THIS AGREEMENT is made this the ____ day of ____ in the year Two Thousand ____ by and between

NAME: OCTC - Orangeburg - Calhoun Technical College**ADDRESS:** 3250 St. Matthews RoadOrangeburg, SC 29118

hereinafter called the "Agency", and

NAME: _____**ADDRESS:** _____

hereinafter called the "Contractor."

WHEREAS, the Agency solicited for construction services, for the work description below:

WORK DESCRIPTION: _____

WHEREAS, Contractor submitted the lowest responsive and responsible quote to provide the services described above.

NOWHEREFORE, in consideration of the mutual covenants and obligations set forth herein, the Agency and Contractor (hereinafter jointly referred to as the "parties") agree as follows:

1. CONTRACT TERMS AND EXTENSIONS:

- 1.1** The effective date of this agreement shall be the date at the top of this page. The Date of Commencement of the Work shall be ____, 2024. The Contract Time is established as 60 calendar days and shall be measured from the Date of Commencement.
- 1.2** The Contractor agrees that the Agency shall be entitled to withhold or recover from the Contractor Liquidated Damages in the amount of \$200.00 for each Calendar Day the Contractor fails to achieve Substantial Completion of the Work within the Contract Time specified or adjusted as provided in the Contract Documents.
- 1.3** The Agency shall pay the Contractor the Contract Sum in current funds for the Contractor's performance of the Contract. The Contract Sum shall be ____, subject to additions and deductions as provided in the Contract documents.
- 1.4** The Construction project is subject to the expenditure limits set forth in SC Code § 11-35-1550 and further explained in the Manual for Planning and Execution of State Permanent Improvements, (the "Manual"). The cost for the original scope of the Contract combined with any modification to the Contract purporting to exceed the limit of \$100,000 is null and void.

2. CONTRACT DOCUMENTS:

- 2.1** Documents forming a part of the contract are:
 - 2.1.1** This Minor Construction Contract (SE-377);

2.1.2 Agency purchase requisition form dated ____; and any modifications issued by the Agency pursuant to this Contract,

2.1.3 The following other documents:

Project Drawings & Specifications dated 06/07/24

- 2.2** The Contract is the entire and integrated agreement between the parties and supersedes prior negotiations, representations, or agreements, whether written or oral.
- 2.3** The Contract can only be modified by written agreement signed by both the Agency and the Contractor. The Contract Documents do not create a contractual relationship between the Contractor and any separate Contractor having a contract with the Agency; between the Agency and any subcontractor to the Contractor of any tier; or between any persons or entities other than the Agency and the Contractor.
- 2.4** The “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.
- 2.5** 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.
- 2.6** 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.
- 2.7** 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.
 - 2.7.1** The Contractor acknowledges that it has investigated and satisfied itself as to the general and local conditions which can affect the work or its cost, including but not limited to (a) conditions bearing upon transportation, disposal, handling, and storage of materials; (b) the availability of labor, water, electric power, and roads; (c) uncertainties of weather, river stages, tides, or similar physical conditions at the site; (d) the conformation and conditions of the ground; and (e) the character of equipment and facilities needed preliminary to and during work performance.
 - 2.7.2** The Contractor also acknowledges that it has satisfied itself as to the character, quality, and quantity of surface and subsurface materials or obstacles to be encountered insofar as this information is reasonably ascertainable from an inspection of the site, including all exploratory work done by the Agency, as well as from the drawings and specifications made a part of this contract.
 - 2.7.3** Any failure of the Contractor to take the actions described and acknowledged in this Section will not relieve the Contractor from responsibility for estimating properly the difficulty and cost of successfully performing the work, or for proceeding to successfully perform the work without additional expense to the Agency.
 - 2.7.4** The Contractor acknowledges that it may be required to accept payment by electronic funds transfer (EFT).

3. AGENCY

- 3.1** The term “Agency” means the Agency or the Agency’s Representative. Agency designates the individual listed below as its Representative, which individual has the authority and responsibility to bind the Agency with respect to all matters regarding the Contract and requiring the Agency’s approval or authorization:

NAME: Richard Dean Felkel

TITLE: Director of Facilities

ADDRESS: 3250 St. Matthews Road, Orangeburg, SC 29118

TELEPHONE: 803-535-1330

EMAIL: felkelrd@octech.edu

- 3.2** The Agency shall furnish, with reasonable promptness, information requested by the Contractor that is necessary for the performance of the Contract Services and under the Agency’s control. Any information or documentation provided by the Agency to the Contractor relating to the Project or Site is provided only for the convenience of the Contractor. The Agency makes no representation or warranty to as to the sufficiency, completeness, or accuracy of such information.

3.3 Utility Access and Use:

☒ If this box is checked, the Agency shall allow the Contractor to use reasonable quantities of water and electricity for construction purposes without charge, as long as these utilities are available and in close proximity to the Work area. Contractor shall be conscientious in controlling excessive or frivolous use of the utilities or the Agency may charge the Contractor for wasteful usage.

3.4 Sanitary Facilities:

☐ The Contractor may use those sanitary facilities designated by the Agency as available for use.

☒ The Contractor may not use the Agency's sanitary facilities. The Contractor shall provide sanitary facilities at the job site and maintain same in a clean and sanitary condition for the use of its employees and employees of its subcontractors for the duration of construction. The sanitary facilities shall conform to the requirements of the South Carolina Department of Health and Environmental Control.

3.5 Permits, Assessments, and Easements: The Agency shall secure and pay for all building permits, zoning permits, assessments, and easements except as required by the terms of the Contract.**3.6 Agency's Architect-Engineer (A/E):** The Agency may retain an independent A/E to prepare design documents for the work. In such event, the A/E will be a representative of the Agency during the performance of such work through final completion of such work. In the absence of an independent A/E, the Agency will assign one of its employees to act as A/E for the work. The Contractor shall cooperate with the A/E in the performance of its duties.**3.7 Construction by Agency:** The Agency may do work with its own forces or award separate contracts for work on the same project. The Contractor shall allow access to the site by the Agency's work force or separate Contractor(s) and shall cooperate in coordinating the progress of the work with the Agency. The Agency shall have the responsibility to coordinate the activities of the various Contractors working at the project location.**4. CONTRACTOR****4.1** The term "Contractor" means the Contractor or the Contractor's Representative. Contractor designates the individual listed below as its Contractor's Representative, which individual has the authority and responsibility to bind the Contractor with respect to all matters regarding the Contract and requiring the Contractor's approval or authorization:

NAME: _____

TITLE: _____

ADDRESS: _____

TELEPHONE: _____ **EMAIL:** _____

4.2 Supervision and Performance of the Work: The Contractor shall supervise, perform, and direct the Work, using the professional skill, care, and attention reasonably required for similar projects. The Contractor shall be solely responsible for and have control over means, methods, techniques, sequences, and procedures and for coordinating the Work, unless the Contract Documents give other specific instructions concerning these matters. The Contractor agrees to faithfully and fully perform the terms of this Contract and shall complete the Work in accordance with the Contract Documents and deliver the Work to the Agency free and clear of all liens and claims. The Contractor shall, at all times during the progress of the Work, employ enough skilled workers and have on hand and maintain an adequate supply of materials and equipment to complete the Work in accordance with the agreed to construction schedules.**4.3 Employee Discipline:** The Contractor shall enforce discipline and good order among the Contractor's and subcontractors' employees, and other persons carrying out the Work. Contractor shall be responsible to the Agency 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.**4.4 Safety:** The Contractor shall comply with all federal and state work site safety requirements and shall be responsible for initiating, maintaining, and supervising reasonable safety precautions and programs in connection with the performance of the Contract Services. The Contractor shall take reasonable precautions for safety of, and shall provide reasonable and appropriate 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; and (3) other property at the site of the Work or adjacent thereto.**4.5 Waste Materials and Rubbish:** The Contractor shall keep the premises and surrounding areas free from accumulation of waste materials or rubbish caused by the Work. Upon Final Acceptance of the Work, the Contractor shall, to the Agency's satisfaction, remove from and about the site, all waste materials, rubbish, surplus material, and Contractor's tools, equipment, machinery.

- 4.6** Recycling: The Contractor shall give preference to the use of products containing recycled content in the performance of the Work. The Contractor shall cooperate with any recycling program established for the site of the work or available through the state or a political subdivision of the state.
- 4.7** Access to the Work: The Contractor shall provide the Agency with unrestricted access to the Work in preparation and progress wherever located.
- 4.8** Use of Site: The Contractor shall confine its operations to the portions of the site identified in the Drawings or otherwise approved by the Agency and shall not unreasonably encumber the portions of the site used for the Work with materials, equipment, or similar items. The Contractor and all subcontractors shall use only such entrances to the Site as are designated by the Agency. During occupied hours, Contractor shall limit construction operations to methods and procedures that do not adversely affect the environment of occupied spaces within the site, including but not limited to creating noise, odors, air pollution, ambient discomfort, or poor lighting.
- 4.9** Correction of the Work:
- 4.9.1** The Agency shall have the right and authority to reject Work that does not conform to the Contract Documents. The Contractor shall promptly correct Work rejected by the Agency for failing to conform to the requirements of the Contract Documents, whether or not fabricated, installed or completed. The provisions of this Section apply to Work done by subcontractors as well as to Work done by direct employees of the Contractor.
- 4.9.2** If the Contractor fails to correct the Work, or any portion thereof, that is not in accordance with the requirements of the Contract Documents or fails to carry out Work or provide information in accordance with the Contract Documents, the Agency may make written demand upon the Contractor to cure its defaults within seven days. Within seven days after receipt of the Agency's demand, the Contractor shall cure its defaults unless the default is such that it is not capable of cure within seven days. If the default is such that it is not capable of cure within seven days, the Contractor shall reach an agreement with the Agency on a plan to cure its defaults within five days after receipt of the Agency's demand. The Contractor shall commence and diligently and continuously pursue the cure of such defaults in accordance with the agreed plan. If the Contractor fails to cure its defaults as heretofore provided, the Agency may order the Contractor, in writing, to stop the Work, or any portion thereof, until the Contractor has eliminated the cause for such order or has provided the Agency with a plan for corrective action acceptable to the Agency. The right of the Agency to stop the Work shall not give rise to a duty on the part of the Agency to exercise this right for the benefit of the Contractor or any other person or entity.
- 4.9.3** Correction after Substantial Completion: If, within one year after the date of Substantial Completion of the Work, 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 written notice from the Agency to do so. The Contractor's obligation set forth in this Section 4.9.3 is in addition to the Contractor's obligations under Section 4.11.
- 4.9.4** Nothing contained in this Section 4.9 shall be construed to establish a period of limitation with respect to other obligations the Contractor has under the Contract Documents. Establishment of such time period as described in this Section 4.9 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.
- 4.10** Manufacturers' Warranties: At Final Completion of the Work, the Contractor shall furnish the Agency two original complete sets of all manufacturers' warranties, guarantees, parts lists, and literature applicable to equipment, systems, fittings, and furnishings included in the Work (collectively referred to as "*Manufacturers' Warranties*"), completed in favor of the Agency. These Manufacturers' Warranties are in addition to and not in lieu of the Contractor's warranty set forth in Section 4.11, and the Agency is entitled to look to the Contractor for remedy in all cases where the Contractor's warranty applies regardless of whether a Manufacturer's Warranty also applies. The Agency shall acknowledge receipt of the sets of Manufacturers' Warranties on the set itself, and the Contractor shall cause six (6) copies of an acknowledged set to be made and furnished to the Agency. All Manufacturers' Warranties will be for applicable periods and contain terms not less favorable to the Agency than those terms that are standard for the applicable industries and will either be issued in the first instance in the name of and for benefit of the Agency or be in a freely assignable form and be assigned to the Agency without limitations.

- 4.11 Contractor Warranty:** The Contractor warrants to the Agency that materials and equipment furnished under the Contract will be of good quality and new unless otherwise required or permitted by the Contract Documents, that the Work will be free from faults and defects not inherent in the quality required or permitted, that the materials, equipment and Work will conform with the requirements of the Contract Documents, and that the Work will be free from any encumbrances, liens, security interests, or other defects in title upon conveyance of title to the Agency. The Contractor's warranty excludes remedy for damage or defect to the extent caused by (i) abuse by anyone other than the Contractor or those for whose acts the Contractor is responsible, (ii) modifications not approved or executed by the Contractor or subcontractors, (iii) improper or insufficient maintenance or operation not the fault of the Contractor or those for whose acts the Contractor is responsible, or (iv) normal wear and tear under normal usage. If required by the Agency, the Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment and the recommended maintenance thereto to meet the requirements of this Section.
- 4.12** After completion of the Work but no later than the date of Substantial Completion, the Contractor shall submit operation and maintenance manuals, recommended spare parts lists, and copies of all warranties to the Agency. As-Built drawings shall be submitted no later than the Final Completion Date.
- 4.13 Compliance with Law:**
- 4.13.1** The Contractor shall comply with and give all notices required by federal, state, county, and municipal laws, ordinances, regulations, and orders bearing on the performance by the Contractor of the duties or responsibilities under this Contract.
- 4.13.2** The Contractor shall promptly remedy any violation of any such law, ordinance, rule, regulation, or order that comes to its attention to the extent that the same results from its performance of the Work. The Contractor shall promptly, and in no event later than the close of the next business day following receipt, give notice to the Agency by telephone, with confirmation in writing, of receipt by the Contractor of any information relating to violations of laws, ordinances, rules, regulations, and orders.
- 4.14 Subcontractors:**
- 4.14.1** The Contractor shall furnish in writing to the Agency for its approval the names of the subcontractors to whom the Contractor plans to award any portion of the Contract Services.
- 4.14.2** Contracts between the Contractor and subcontractors shall require each subcontractor, to the extent of the Contract Services to be performed by the subcontractor, to be bound to the Contractor by the terms of the Contract Documents, and to assume toward the Contractor all the obligations and responsibilities which the Contractor, by the Contract Documents, assumes toward the Agency.
- 4.14.3** The Contractor shall be responsible to the Agency for acts and omissions of the subcontractors, their agents and employees, and any other persons performing portions of the Contract Services, to the same extent as the acts or omissions of the Contractor hereunder.
- 4.15** **Publicity:** Contractor shall not publish any comments or quotes by State employees or include the State in either news releases or a published list of agencies, without the prior written approval of the Agency.
- 4.16 Indemnification**
- 4.16.1** To the fullest extent permitted by law, the Contractor shall indemnify and hold harmless the Agency and the Agency's agents and employees from and against claims, damages, losses and expenses, including, but not limited to, reasonable attorney's 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), including loss of use resulting therefrom, but only to the extent caused by 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.
- 4.16.2** In claims against any person or entity indemnified under Section 4.16.1 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 this Section 4.16 shall not be limited by a limitation on amount or type of damages, compensation or benefits payable by or for Contractor or a subcontractor under workers' or workmen's compensation acts, disability benefit acts, or other employee benefit acts.

4.17 Shop Drawings and Samples:

4.17.1 Contractor shall prepare or cause to be prepared shop drawings for fabricated items. Shop drawings shall consist of drawings, diagrams, illustrations, schedules, brochures, and other data which are prepared by the Contractor, sub-Contractor, manufacturer, supplier, or distributor and depict that portion of the work. Shop drawings shall be submitted, reviewed, and approved by the Contractor prior to submitting to the Agency and A/E. Shop drawings approved by the Contractor shall bear a stamp denoting that they have been review and are “approved” or “approved as noted” or similar designation. Contractor shall submit the number of sets as specified in the plans or specifications or in the absence of a specification submit enough copies for the Agency to retain two copies plus the number desired to be returned to the Contractor. The Agency and A/E will review the shop drawings with reasonable promptness but only for conformity with the design.

4.17.2 Contractor shall submit samples as required by the Drawings and Specifications. Samples are physical examples furnished by the Contractor of sufficient size and quantity to provide a good representation of the material proposed to be installed. Samples submitted will not be returned unless requested by Contractor and agreed to by the A/E. The Contractor shall pay shipping costs. The final installed product shall match the approved sample.

4.18 Inspection and Testing of Materials:

4.18.1 The Contractor shall leave uncovered all areas of work that will be covered that are called out in the construction documents to be left uncovered, or the Agency or A/E requests to be left uncovered prior to being inspected. The Contractor shall give adequate notice to the Agency and A/E of the time requested for an inspection of areas to be covered.

4.18.2 If the Contractor covers areas that were to be left uncovered, the Contractor shall cause the area to be uncovered for inspection. After being inspected, the Contractor shall repair the area with craftsmen skilled in the appropriate trades needed for the repair at no additional cost to the Agency.

4.19 Substitutions:

4.19.1 The Contractor shall submit proposed substitutions to the Agency for the Agency’s approval prior to execution of the Work.

4.19.2 Reference in the Contract Documents to a designated material, product, thing, or service by specific brand or trade name followed by the words “or equal” and “or approved equal” shall be interpreted as establishing a standard of quality and shall not be construed as limiting competition. The Contractor may use the products of other another manufacturer provided it is an ‘approved equal’ that meets or exceeds the specification for the specified product. The Contractor must submit adequate information about the product to show that the submitted product meets the level of quality as the product specified.

4.19.3 The Contractor shall not substitute any product, article, appliance, equipment, or material that is specified without prior written approval of the Agency.

4.20 Receiving and Storing Materials and Equipment: The Contractor shall have an authorized person or persons to receive all items delivered to the site of the Work and shall properly unload, check for completeness of shipment, and in-transit damage. The Contractor shall properly handle and store materials, supplies, equipment etc. in accordance with the Contract documents or manufacturer’s printed instructions for each product.

4.21 Schedule and Reports: Promptly after the award of the Contract, the Contractor shall present a construction schedule in a form satisfactory to the Agency. The schedule shall not exceed the time limits current under the Contract Documents. The Contractor shall update the schedule at appropriate intervals as required by the conditions of the Work, showing the actual progress of the Work and adjustment in completion dates. If the Work falls behind schedule, the Contractor shall present a plan for completion of the Work by the scheduled date for completion.

4.22 Time for Completion:

4.22.1 If the Contractor is delayed at any time in the commencement or progress of the Work, the Contractor shall make a request for extension of time within seven days of the event giving rise to the request. The Contractor shall adequately document delays of the work that are due to circumstances beyond the control of the Contractor and shall submit the documentation to the Agency with a request for an extension. In the event of ongoing delay, the Contractor shall notify the Agency in its request for an extension of time that the cause of delay is ongoing. In such case, the Contractor shall supplement its request when the cause of delay ends or the project is completed, whichever is sooner.

4.22.2 The Agency will review each request for time extension and equitably adjust the time for completion where (1) the event of delay actually impacted the critical path of the project and was beyond the control of the Contractor, and (2) completion of the Work was actually delayed.

5. INSURANCE AND BONDS

5.1 Commercial General Liability, Business Automobile Liability, and Worker's Compensation: The Contractor shall purchase from and maintain, in a company or companies lawfully authorized to do business in South Carolina, such insurance as will protect Contractor from claims set forth below, which may arise out of or result from Contractor's operations and completed operations under the Contract and for which the Contractor may be legally liable, whether such operations be by the Contractor or by a subcontractor or by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable:

- a. claims under workers' compensation, disability benefit and other similar employee benefit acts which are applicable to the Work to be performed.
- b. claims for damages because of bodily injury, occupational sickness or disease, or death of the Contractor's employees.
- c. claims for damages because of bodily injury, sickness or disease, or death of any person other than the Contractor's employees.
- d. claims for damages insured by usual personal injury liability coverage.
- e. claims for damages, other than to the Work itself, because of injury to or destruction of tangible property, including loss of use resulting therefrom.
- f. claims for damages because of bodily injury, death of a person or property damage arising out of ownership, maintenance or use of a motor vehicle.
- g. claims for bodily injury or property damage arising out of completed operations; and
- h. claims involving contractual liability insurance applicable to the Contractor's obligations under Section 3.17, Indemnification.

5.1.1 The insurance required by Section 5.1 shall be written for not less than the limits of liability specified below or required by law, whichever is greater. Coverage shall be written on an occurrence basis and shall be maintained without interruption from the date of commencement of the Work until date of final payment and termination of any coverage required to be maintained after final payment and, with respect to the Contractor's completed operations coverage, until the expiration of the period for correction of Work set forth in Section 4.9 or for such other period for maintenance of completed operations coverage as specified in the Contract Documents.

a. COMMERCIAL GENERAL LIABILITY:

- (1) General Aggregate (per project).....\$1,000,000
- (2) Products/Completed Operations.....\$1,000,000
- (3) Personal and Advertising Injury.....\$1,000,000
- (4) Each Occurrence.....\$1,000,000
- (5) Fire Damage (Any one fire)\$50,000
- (6) Medical Expense (Any one person)\$5,000

b. BUSINESS AUTO LIABILITY (including All Owned, Non-owned, and Hired Vehicles):

- (1) Combined Single Limit\$1,000,000 OR
- (2) Bodily Injury & Property Damage (each)\$750,000

c. WORKER'S COMPENSATION:

- (1) State Statutory
- (2) Employers Liability\$100,000 per Acc.
\$500,000 Disease, Policy Limit
\$100,000 Disease, Each Employee

In lieu of separate insurance policies for Commercial General Liability, Business Auto Liability, and Employers Liability, the Contractor may provide an umbrella policy meeting or exceeding all coverage requirements set forth in this Section 5.1. The umbrella policy limits shall not be less than \$5,000,000.

5.1.2 Prior to commencement of the Work, and thereafter upon replacement of each required policy of insurance, Contractor shall provide to the Agency a written endorsement to the Contractor's general liability insurance policy that:

- a. names the Agency as an additional insured for claims caused in whole or in part by the Contractor's negligent acts or omissions during the Contractor's operations;

- b. provides that no material alteration, cancellation, non-renewal, or expiration of the coverage contained in such policy shall have effect unless all additional insured have been given at least ten (10) days prior written notice of cancellation for non-payment of premiums and thirty (30) days prior written notice of cancellation for any other reason; and
- c. provides that the Contractor's liability insurance policy shall be primary, with any liability insurance of the Agency as secondary and noncontributory.

5.1.3 Before commencement of the Work, and thereafter upon renewal or replacement of each required policy of insurance, Contractor shall provide to the Agency a signed, original certificate of liability insurance (ACORD 25). Consistent with this Section 5.1, the certificate shall identify the types of insurance, state the limits of liability for each type of coverage, name the Agency as Certificate Holder, provide that the general aggregate limit applies per project, and provide that coverage is written on an occurrence basis. Both the certificates and the endorsements must be received directly from either the Contractor's insurance agent or the insurance company. An additional certificate evidencing continuation of liability coverage, including coverage for completed operations, naming the Agency as an additional insured for claims made under the Contractor's completed operations, and otherwise meeting the above requirements, shall be submitted with the Contractor's final request for payment for the Work and thereafter upon renewal or replacement of such coverage until the expiration of the time required by Section 5.1. Information concerning reduction of coverage on account of revised limits or claims paid under the General Aggregate, or both, shall be furnished by the Contractor with reasonable promptness.

5.1.4 A failure by the Agency either (i) to demand a certificate of insurance or written endorsement required by Section 5.1, or (ii) to reject a certificate or endorsement on the grounds that it fails to comply with Section 5.1, shall not be considered a waiver of Contractor's obligations to obtain the required insurance.

5.2 Property Insurance:

☐ If this box is checked, Contractor shall provide the following:

5.2.1 Builder's Risk Insurance: Contractor shall purchase property insurance written on a builder's risk "all risk" or equivalent policy form on a replacement cost basis. Contractor shall maintain such property insurance until the Agency has made final payment for the Work or until no person or entity other than the Agency has an insurable interest in the property required by this Section 5.2 to be covered, whichever is later. This insurance shall include and be in an amount sufficient to cover at all times during the performance of the Work, the interests of the Contractor, Subcontractors and Sub-subcontractors in the Project. The property insurance shall include, without limitation, insurance against the perils of fire (with extended coverage) and physical loss or damage including, without duplication of coverage, theft, vandalism, malicious mischief, collapse, earthquake, flood, windstorm, false work, testing and startup, temporary buildings and debris removal including demolition occasioned by enforcement of any applicable legal requirements, and shall cover reasonable compensation for Architect's and Contractor's services and expenses required as a result of such insured loss.

5.2.2 Equipment Breakdown Insurance: In the event the Contractor installs and runs and/or operates (whether for testing or other purposes) heating, air conditioning, and electrical machinery and equipment, the Contractor shall purchase and maintain equipment breakdown (boiler and machinery) insurance, which shall specifically cover such objects during installation and until final acceptance by the Agency. This insurance shall include interests of the Agency, Contractor, and subcontractors at any tier in the Work, and the Agency and Contractor shall both be named insured.

5.2.3 Before an exposure to loss may occur, the Contractor shall file with the Agency a copy of each policy that includes insurance coverage required by this Section 5.2. Each policy shall contain all generally applicable conditions, definitions, exclusions and endorsements related to this Project.

5.2.4 Waiver of Subrogation: The Agency and Contractor waive all rights against (1) each other and any of their subcontractors, sub-subcontractors, agents and employees, each of the other, for damages caused by fire or other causes of loss to the extent the property insurance provided by the Contractor pursuant to this Section 5.2 covers and pays for the damage, except such rights as they have to proceeds of such insurance held by the Contractor. The Agency or Contractor, as appropriate, shall require of the subcontractors, sub-subcontractors, agents and employees, each of the other, by appropriate written agreements, similar waivers each in favor of other parties enumerated herein. The policies shall provide such waivers of subrogation by endorsement or otherwise. A waiver of subrogation shall be effective as to a person or entity even though that person or entity would otherwise have a duty of indemnification, contractual or otherwise, did not pay the insurance premium directly or indirectly, and whether or not the person or entity had an insurable interest in the property damaged.

5.3 Performance and Payment Bonds:

☒ If this box is checked, prior to beginning work, the Contractor shall deliver to the Agency a Performance Bond and a Labor & Material Payment Bond. Each bond shall be in the amount of 100% of the Contract Sum. The Contractor's Performance Bond shall be in the form of the SE-355, Performance Bond, and the Labor & Material Payment Bond shall be in the form of the SE-357, Labor & Material Payment Bond. The surety company providing the Bonds shall have, at a minimum, a "Best Rating" of "A" as stated in the most current publication of "Best's Key Rating Guide, Property - Casualty." Contractor's failure to provide bonds as herein required shall be an event of default justifying the Agency, in its sole discretion, in terminating this Contract for cause.

6. CONTRACT ADMINISTRATION**6.1 Changes in the Work:**

6.1.1 Any changes in the work must be approved by the Agency and executed by a modification to the Agency purchase requisition form. The modification must be signed by the Contractor and Agency.

6.1.2 At the Agency's request, the Contractor shall prepare a proposal to perform the work of a proposed modification setting forth the amount of the proposed adjustment, if any, in the Contract Sum; and the extent of the proposed adjustment, if any, in the Contract Time. The Agency's request shall include any revisions to the Drawings or Specifications necessary to define the changes in the Work. Within fifteen days of receiving the request, the Contractor shall submit the proposal to the Agency and Architect along with all substantiating documentation.

6.1.3 In the absence of a total agreement concerning the item(s) for a contract modification, a Construction Change Directive shall be used.

6.1.4 Agreed Overhead and Profit Rates:

For any adjustment to the Contract Sum for which overhead and profit may be recovered, the combined overhead and profit included in the total cost to the Owner for a change in the Work shall be based on the following schedule:

- a. For the Contractor, for Work performed by the Contractor's own forces, not to exceed seventeen (17%) percent of the Contractor's actual costs.
- b. For the Contractor, for Work performed by the Contractor's Subcontractors, not to exceed ten (10%) percent of each Subcontractor's actual costs (not including the Subcontractor's overhead and profit.)
- c. For each Subcontractor involved, for Work performed by that Subcontractor's own forces, not to exceed seventeen (17%) percent of the Subcontractor's actual costs.

The percentages cited above shall be considered to include all indirect costs including, but not limited to, field and office managers, supervisors and assistants, incidental job burdens, small tools, and general overhead allocations.

6.2 Payments:

6.2.1 Contractor may submit monthly applications for payment for the Work scheduled to last two months or more in duration. Contractor shall submit only one application for payment for the Work scheduled to last less than two months in duration.

6.2.2 If the Contractor intends to submit more than one application for payment, the Contractor shall submit to the A/E, within ten days of Contract award, a schedule of values allocating the entire Contract Sum to the various portions of the Work and prepared in such form and supported by such data to substantiate its accuracy as the A/E may require. This schedule, unless objected to by the A/E, shall be used as a basis for reviewing the Contractor's Applications for Payment. Contractor shall base its monthly applications for payment on work completed up to the date of the application using the approved schedule of values. The sum of all payments to the Contractor shall not exceed the agreed upon cost of the work set forth in the Minor Construction Contract as adjusted by subsequent modifications to the Contract, if any.

6.2.3 Contractor's applications for payment may include materials suitably stored on site for use in the Work provided the Contractor submits:

- a. Proof of purchase & delivery;
- b. Documentation showing the location of the material;
- c. Certificate of insurance for the material with adequate coverage showing the Agency as the certificate holder.

- 6.2.4** The Agency will make payments to the Contractor for completed work based on the actual units or quantity of work completed. The Agency will make payments on the undisputed amounts of an application for payment within 21 days of receipt of the application.
- 6.2.5** Subcontractor Payments (Chapter 6 of Title 29 of the South Carolina Code of Laws, as amended): The Contractor shall pay each subcontractor no later than seven (7) days after receipt of payment from the Agency 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. By appropriate agreement with its subcontractors, the Contractor shall require each subcontractor to make payments to Sub-subcontractors in a similar manner.
- 6.2.6** If the Agency does not pay the Contractor within seven (7) days after the time established in Section 6.2.4 the undisputed amount of a payment request, then upon seven (7) additional days written notice to the Agency, the Contractor may stop the Work until the Contractor has received payment of the undisputed amount owing. The Contract Time and the Contract Sum shall be equitably adjusted by the amount of the Contractor's reasonable costs of shut down, delay and start-up, plus interest as provided for in the Contract Documents.
- 6.2.7** Retainage: The Agency, at its option, may withhold retainage as provided in SC Code § 11-35-3030(4).
- 6.2.8** Final Payment: Upon final payment by the Agency to the Contractor for the Work, all rights, title, and interest in and to all improvements and equipment constructed or installed on the premises shall vest in the Agency at no additional cost, free and clear of all any liens and encumbrances created or caused by the Contractor.
- 6.2.9** Withholding of Payments: Payments may be withheld to the extent of, and on account of:
- a. defective Work not remedied, or Work not performed in accordance with the Contract Documents;
 - b. claims filed by third parties;
 - c. failure of the Contractor to make payments promptly to the subcontractors for labor, materials, or equipment;
 - d. persistent failure to carry perform the Work in accordance with the Contract Documents;
 - e. failure by the Contractor to perform its obligations under the Contract Documents; or
 - f. a default by the Contractor under the Contract Documents.

The Agency shall promptly notify the Contractor of any reason for withholding payment.

- 6.3** Completion and Closeout: Upon Final Completion of all Work, the Contractor shall notify the Agency of its completion. The Agency shall schedule a Final Inspection and allow the Contractor to demonstrate that all equipment and systems operate as designed. The Agency may elect to have other persons, firms or agencies participate in the inspections. Projects exceeding the Agency's construction procurement certification level shall require an inspection by the Office of State Engineer (OSE) and the State Engineer's issuance of a Certificate of Occupancy. (The Contractor may find Agency construction certification limits on Procurement Services website at <https://procurement.sc.gov/agency/audits/cert-limits>) Final payment will not be due nor retained funds released until:
- a. the Agency agrees that the project is complete;
 - b. OSE or the Agency, which ever has authority, issues a Certificate of Occupancy (SE-585); and
 - c. the Agency receives from the Contractor the following:
 - (1) Affidavit of payment of debts and claims;
 - (2) Consent of Surety, if any, to final payment.

7. DISPUTE RESOLUTION

- 7.1** Both parties shall attempt to resolve disputes through good faith negotiations.
- 7.2** All disputes, claims, or controversies relating to the Contract, that cannot be resolved through good faith negotiations between the parties shall be resolved exclusively by the appropriate Chief Procurement Officer in accordance with Title 11, Chapter 35, Article 17 of the South Carolina Code of Laws, or in the absence of jurisdiction, only in the Court of Common Pleas for, or a federal court located in, Richland County, State of South Carolina. Contractor agrees that any act by the State regarding the Contract is not a waiver of either the State's sovereign immunity or the State's immunity under the Eleventh Amendment of the United States Constitution. As used herein, "the State" includes the Agency and the State Fiscal Accountability Authority.
- 7.3** Interest: Payments due to the Contractor and unpaid under the Contract Documents shall bear interest only if and to the extent allowed by Title 29, Chapter 6, Article 1 of the South Carolina Code of Laws. Amounts due to the Agency shall bear interest at the rate of one percent a month or a pro rata fraction thereof on the unpaid balance as may be due.

- 7.4 Contractor consents that any papers, notices, or process necessary or proper for the initiation or continuation of any claims or controversies relating to the Contract; for any court action in connection therewith; or for the entry of judgment on any award made, may be served on Contractor by certified mail (return receipt requested) addressed to Contractor at the address provided for the Contractor's Representative or by personal service or by any other manner that is permitted by law, in or outside South Carolina. Notice by certified mail is deemed duly given upon deposit in the United States mail.
- 7.5 Continuation of Work: Pending final resolution of any dispute under this Contract, the Contractor will proceed diligently with the performance of its duties and obligations under the Contract Documents, and the Agency will continue to make payments of undisputed amounts in accordance with the Contract Documents.

8. LIMITATION OF LIABILITY

- 8.1 Notwithstanding any other provision of the Contract Documents, but subject to a duty of good faith and fair dealing, the Contractor and Agency waive Claims against each other for listed damages arising out of or relating to this Contract. This mutual waiver includes:
- 8.1.1 For the Agency, listed damages are (i) lost revenue and profit, (ii) losses resulting from injury to business or reputation, (iii) additional or escalated overhead and administration expenses, (iv) additional financing costs, (v) costs suffered by a third party unable to commence work, (vi) reasonable attorney's fees, (vii) any interest, except to the extent allowed by Section 6.3 (Interest), (viii) lost revenue and profit for lost use of the property, (ix) costs resulting from lost productivity or efficiency, and (x) damages incurred by the Agency 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
- 8.1.2 For the Contractor, listed damages are (i) lost revenue and profit, (ii) losses resulting from injury to business or reputation, (iii) additional or escalated overhead and administration expenses, (iv) additional financing costs, (v) reasonable attorney's fees, (vi) any interest, except to the extent allowed by Section 6.3 (Interest); (vii) unamortized equipment costs; and (viii) losses incurred by subcontractors for the types of damages the Contractor has waived as against the Agency.
- 8.2 This mutual waiver is applicable, without limitation, to all listed damages due to either party's termination in accordance with Section 11. Nothing contained in this Section 8 shall be deemed to preclude an award of liquidated damages, when applicable, in accordance with the requirements of the Contract Documents. This mutual waiver is not applicable to amounts due or obligations under Section 4.16 (Indemnification).

9. HAZARDOUS MATERIALS

- 9.1 Contractor's Responsibilities with Respect to Hazardous Materials:
- 9.1.1 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 which was not discoverable as provided in Section 2.7 and not addressed in the Contract Documents, and if reasonable precautions will be inadequate to prevent foreseeable bodily injury or death to persons or serious loss to real or personal property resulting from such a material or substance encountered on the site by the Contractor, the Contractor shall, upon recognizing the condition, immediately stop Work in the affected area and notify the Agency of the condition. Hazardous materials or substances are those hazardous, toxic, or radioactive materials or substances subject to regulations by applicable governmental authorities having jurisdiction, such as, but not limited to, the S.C. Department of Health and Environmental Control, the U.S. Environmental Protection Agency, and the U.S. Nuclear Regulatory Commission.
- 9.1.2 Upon receipt of the Contractor's notice, the Agency 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. When the material or substance has been rendered harmless, Work in the affected area shall resume upon written agreement of the Agency 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.
- 9.2 Hazardous Materials Introduced to the Site by Contractor: If the Contractor, its subcontractors, and any party for whom they may be liable, introduces any Hazardous Materials to the Site then the Contractor, at its sole cost and expense, shall be responsible for any response, removal, cleanup, and/or other remedial action required by applicable law. If any Mold occurs within the Site as the result of the negligent implementation of the Project or the improper functioning of the Conservation Measures, then the Contractor, at its sole cost and expense, shall be responsible for any response, removal, cleanup, or other remedial action required by applicable law. Except as to the Contractor's initial response to an emergency, any such remedial action(s) shall require the prior review and approval of the Agency.

10. MISCELLANEOUS PROVISIONS

- 10.1** Governing Law: This Contract shall be governed by the laws of South Carolina, except its choice of law rules.
- 10.2** Severability: If any provision of this Contract shall be held to be invalid, illegal, or unenforceable, the validity, legality and enforceability of the remaining provisions shall not be affected or impaired thereby.
- 10.3** No Waiver: No course of dealing or failure of the Agency and/or the Contractor to enforce strictly any term, right or condition of this Contract shall be construed as a waiver of such term, right or condition. No express waiver of any term, right, or condition of this Contract shall operate as a waiver of any other term, right, or condition.
- 10.4** Rights Cumulative: Except as otherwise provided in this Contract, (i) rights and remedies available to the Agency and/or the Contractor as set forth in this Contract shall be cumulative with and in addition to, and not in limitation of, any other rights or remedies available to the Parties at law and/or in equity, and (ii) any specific right or remedy conferred upon or reserved to the Agency and/or the Contractor in any provision of this Contract shall not preclude the concurrent or consecutive exercise of a right or remedy provided for in any other provision hereof.
- 10.5** Notices: Any notices required to be given under this Contract shall be in writing and shall be delivered either by (i) certified mail, return receipt requested, in which case notice shall be deemed delivered three (3) business days after deposit, postage prepaid, in the U.S. mail; (ii) a reputable messenger service or a nationally recognized overnight courier, in which case notice shall be deemed delivered one (1) business day after deposit with such messenger or courier; or (iii) personal delivery with receipt acknowledged in writing, in which case notice shall be deemed delivered when received. All notices shall be sent to the representatives identified in the Part G of the Agreement at the addresses provided therein. The foregoing addresses may be changed from time to time by notice to the other Party in the manner herein provided for.
- 10.6** Economic Conflict of Interest: A Contractor shall not have or exercise any official responsibility regarding a public contract in which the Contractor, or a business with which he is associated, has an economic interest. A person working for Contractor shall not have or exercise any official responsibility regarding a public contract in which the person, an individual with whom he is associated, or his family members have an economic interest. If Contractor is asked by any person to violate, or does violate, either of these restrictions, Contractor shall immediately communicate such information to the Agency Representative. The State may rescind, and recover any amount expended as a result of, any action taken, or contract entered in violation of this provision. The terms “business with which he is associated,” “economic interest,” “family member,” “immediate family,” “individual with whom he is associated,” “official responsibility” and “person” have the meanings provided in SC Code § 8-13-100.
- 10.7** Illegal Immigration: Contractor certifies and agrees that it will comply with the applicable requirements of Title 8, Chapter 14 of the South Carolina Code of Laws and agrees to provide to the State upon request any documentation required to establish either: (a) that Title 8, Chapter 14 is inapplicable both to Contractor and its subcontractors or sub-subcontractors; or (b) that Contractor and its subcontractors or sub-subcontractors are in compliance with Title 8, Chapter 14. Pursuant to SC Code § 8-14-60, “A person who knowingly makes or files any false, fictitious, or fraudulent document, statement, or report pursuant to this chapter is guilty of a felony and, upon conviction, must be fined within the discretion of the court or imprisoned for not more than five years, or both.” Contractor agrees to include in any contracts with its subcontractors language requiring its subcontractors to (a) comply with the applicable requirements of Title 8, Chapter 14, and (b) include in their contracts with the sub-subcontractors language requiring the sub-subcontractors to comply with the applicable requirements of Title 8, Chapter 14. (An overview is available at www.procurement.sc.gov)
- 10.8** Drug-Free Workplace: The Contractor certifies to the Agency that Contractor will provide a Drug-Free Workplace, as required by Title 44, Chapter 107 of the South Carolina Code of Laws, as amended.
- 10.9** False Claims: According to the SC Code § 16-13-240, “a person who by false pretense or representation obtains the signature of a person to a written instrument or obtains from another person any chattel, money, valuable security, or other property, real or personal, with intent to cheat and defraud a person of that property is guilty” of a crime.
- 10.10** Non-Indemnification: Any term or condition is void to the extent it requires the State to indemnify anyone. It is unlawful for a person charged with disbursements of state funds appropriated by the General Assembly to exceed the amounts and purposes stated in the appropriations (SC Code § 11-9-20). It is unlawful for an authorized public officer to enter into a contract for a purpose in which the sum is in excess of the amount appropriated for that purpose. It is unlawful for an authorized public officer to divert or appropriate the funds arising from any tax levied and collected for any one fiscal year to the payment of an indebtedness contracted or incurred for a previous year. (SC Code § 11-1-40)

- 10.11** Enforcement and Interpretation of Building Codes: As required by SC Code § 10-1-180), OSE shall determine the enforcement and interpretation of all building codes and referenced standards on state buildings. The Contractor shall refer any questions, comments, or directives from local officials to the Agency and OSE for resolution. When the amount of the contract exceeds the construction procurement certification of the Agency, the Contractor shall not commence the Work before receiving a copy of the Building permit issued by OSE. (The Contractor may find Agency construction certification limits on Procurement Services website at <https://procurement.sc.gov/agency/audits/cert-limits>)
- 10.12** Assignment: The Agency and Contractor respectively bind themselves, their partners, successors, assigns, and legal representatives to covenants, agreements and obligations contained in this Contract. Neither party to the Contract shall assign the Contract as a whole, or in part, without written consent of the other and then only in accordance with and as permitted by SC Regulation 19-445.2180. If either party attempts to make such an assignment without such consent, that party shall nevertheless remain legally responsible for all obligations under the Contract.
- 10.13** Open Trade: During the Contract term, including any renewals or extensions, Contractor will not engage in the boycott of a person or an entity based in or doing business with a jurisdiction with whom South Carolina can enjoy open trade, as defined in SC Code § 11-35-5300.

11. SUSPENSION OR TERMINATION

- 11.1** Agency Right of Suspension: The Agency may, at any time, suspend the work, in whole or in part, with or without cause for such period of time as determined by the Agency. Except in the event of suspension due to a default of the Contractor, the Contract sum will be equitably adjusted to reflect reasonable costs actually incurred by the Contractor due to delay or interruption resulting from such suspension.
- 11.2** Agency Right of Termination:
- 11.2.1** Termination for Cause: If the Contractor defaults, persistently fails or neglects to perform the Work in accordance with the Contract Documents, or fails to perform a provision of the Contract, the Agency shall provide written notice of such default, failure, or neglect to the Contractor. If the Contractor fails to cure such default, failure, or neglect within fifteen days from receipt of the Agency's notice, the Agency may, without prejudice to any other right or remedy the Agency may have, terminate the Contract and take possession of the area at the Site affected by the Work.
- 11.2.2** Termination for Convenience: The Agency may, for its convenience, terminate all or any portion of the Work, or terminate this entire Contract, by ten (10) days written notice stating the effective date of the termination. Thereafter, the Agency shall pay the Contractor for Work actually performed before the date of termination. No payments shall be made for Work not actually performed, and no payment shall be made or due for lost profits on account of Work not performed.
- 11.3** Contractor Right of Termination:
- 11.3.1** The Contractor may terminate the Contract if work is stopped through no fault of the Contractor, or other persons performing work either directly or indirectly for the Contractor, for a period of time exceeding 60 consecutive calendar days due to a court order or other public authority having jurisdiction; or a Declared National emergency which requires the work to be stopped.
- 11.3.2** Agency Failure to Make Payment: Subject to the Agency's right to withhold payments pursuant to Section 6.2.9, if the Agency fails to make payments to the Contractor as set forth in Section 6.2 and any other applicable provisions of the Contract Documents, the Contractor may, upon thirty (30) days' prior written notice to the Agency, terminate the Contract and recover from the Agency payment for all Work performed and for proven loss with respect to materials, equipment, tools, and machinery, including reasonable overhead, profit and damages applicable to the Work for the Contract Services performed through the date thereof.

AGENCY:

BY: _____
(Signature of Representative)

PRINT NAME: _____

PRINT TITLE: _____

DATE: _____

CONTRACTOR:

BY: _____
(Signature of Representative)

PRINT NAME: _____

PRINT TITLE: _____

DATE: _____

SE-355

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS, that *(Insert full name or legal title and address of Contractor)*

Name: _____

Address: _____

hereinafter referred to as “Contractor”, and *(Insert full name and address of principal place of business of Surety)*

Name: _____

Address: _____

hereinafter called the “surety”, are jointly and severally held and firmly bound unto *(Insert full name and address of Agency)*

Name: OCTC - Orangeburg - Calhoun Technical College

Address: 3250 St. Matthews Road

Orangeburg, SC 29118

hereinafter referred to as “Agency”, or its successors or assigns, the sum of _____ (\$ _____), being the sum of the Bond to which payment to be well and truly made, the Contractor and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, Contractor has by written agreement dated _____ entered into a contract with Agency to construct

State Project Name: OCTC - Building R Canopy Repair

State Project Number: OCTC-FY24-1

Brief Description of Awarded Work: _____

in accordance with Drawings and Specifications prepared by *(Insert full name and address of A/E)*

Name: WM Building Envelope Consultants, LLC

Address: 1611 Chapin Road

Chapin, SC 29036

which agreement is by reference made a part hereof, and is hereinafter referred to as the Contract.

IN WITNESS WHEREOF, Surety and Contractor, intending to be legally bound hereby, subject to the terms stated herein, do each cause this Performance Bond to be duly executed on its behalf by its authorized officer, agent or representative.

DATED this _____ **day of** _____, **2** _____
(shall be no earlier than Date of Contract)

BOND NUMBER _____

CONTRACTOR

By: _____
 (Seal)

Print Name: _____

Print Title: _____

Witness: _____

SURETY

By: _____
 (Seal)

Print Name: _____

Print Title: _____
(Attach Power of Attorney)

Witness: _____

(Additional Signatures, if any, appear on attached page)

SE-355**PERFORMANCE BOND****NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH THAT:**

1. The Contractor and the Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to the Agency for the full and faithful performance of the contract, which is incorporated herein by reference.
2. If the Contractor performs the contract, the Surety and the Contractor have no obligation under this Bond, except to participate in conferences as provided in paragraph 3.1.
3. The Surety's obligation under this Bond shall arise after:
 - 3.1 The Agency has notified the Contractor and the Surety at the address described in paragraph 10 below, that the Agency is considering declaring a Contractor Default and has requested and attempted to arrange a conference with the Contractor and the Surety to be held not later than 15 days after receipt of such notice to discuss methods of performing the Contract. If the Agency, the Contractor and the Surety agree, the Contractor shall be allowed a reasonable time to perform the Contract, but such an agreement shall not waive the Agency's right, if any, subsequently to declare a Contractor Default; or
 - 3.2 The Agency has declared a Contractor Default and formally terminated the Contractor's right to complete the Contract.
4. The Surety shall, within 15 days after receipt of notice of the Agency's declaration of a Contractor Default, and at the Surety's sole expense, take one of the following actions:
 - 4.1 Arrange for the Contractor, with consent of the Agency, to perform and complete the Contract; or
 - 4.2 Undertake to perform and complete the Contract itself, through its agents or through independent contractors; or
 - 4.3 Obtain bids or negotiated proposals from qualified contractors acceptable to the Agency for a contract for performance and completion of the Contract, arrange for a contract to be prepared for execution by the Agency and the contractor selected with the Agency's concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the Bonds issued on the Contract, and pay to the Agency the amount of damages as described in paragraph 7 in excess of the Balance of the Contract Sum incurred by the Agency resulting from the Contractor Default; or
 - 4.4 Waive its right to perform and complete, arrange for completion, or obtain a new contractor, and:
 - 4.4.1 After investigation, determine the amount for which it may be liable to the Agency and, within 60 days of waiving its rights under this paragraph, tender payment thereof to the Agency; or
 - 4.4.2 Deny liability in whole or in part and notify the Agency, citing the reasons therefore.
5. Provided Surety has proceeded under paragraphs 4.1, 4.2, or 4.3, the Agency shall pay the Balance of the Contract Sum to either:
 - 5.1 Surety in accordance with the terms of the Contract; or
 - 5.2 Another contractor selected pursuant to paragraph 4.3 to perform the Contract.
 - 5.3 The balance of the Contract Sum due either the Surety or another contractor shall be reduced by the amount of damages as described in paragraph 7.
6. If the Surety does not proceed as provided in paragraph 4 with reasonable promptness, the Surety shall be deemed to be in default on this Bond 15 days after receipt of written notice from the Agency to the Surety demanding that the Surety perform its obligations under this Bond, and the Agency shall be entitled to enforce any remedy available to the Agency.
 - 6.1 If the Surety proceeds as provided in paragraph 4.4 and the Agency refuses the payment tendered or the Surety has denied liability, in whole or in part, then without further notice the Agency shall be entitled to enforce any remedy available to the Agency.
 - 6.2 Any dispute, suit, action or proceeding arising out of or relating to this Bond shall be governed by the Dispute Resolution process defined in the Contract Documents and the laws of the State of South Carolina.
7. After the Agency has terminated the Contractor's right to complete the Contract, and if the Surety elects to act under paragraph 4.1, 4.2, or 4.3 above, then the responsibilities of the Surety to the Agency shall be those of the Contractor under the Contract, and the responsibilities of the Agency to the Surety shall be those of the Agency under the Contract. To a limit of the amount of this Bond, but subject to commitment by the Agency of the Balance of the Contract Sum to mitigation of costs and damages on the Contract, the Surety is obligated to the Agency without duplication for:
 - 7.1 The responsibilities of the Contractor for correction of defective Work and completion of the Contract; and
 - 7.2 Additional legal, design professional and delay costs resulting from the Contractor's Default, and resulting from the actions or failure to act of the Surety under paragraph 4; and
 - 7.3 Damages awarded pursuant to the Dispute Resolution Provisions of the Contract. Surety may join in any Dispute Resolution proceeding brought under the Contract and shall be bound by the results thereof; and
 - 7.4 Liquidated Damages, or if no Liquidated Damages are specified in the Contract, actual damages caused by delayed performance or non-performance of the Contractor.
8. The Surety shall not be liable to the Agency or others for obligations of the Contractor that are unrelated to the Contract, and the Balance of the Contract Sum shall not be reduced or set-off on account of any such unrelated obligations. No right of action shall accrue on this Bond to any person or entity other than the Agency or its heirs, executors, administrators, or successors.
9. The Surety hereby waives notice of any change, including changes of time, to the contract or to related subcontracts, purchase orders and other obligations.
10. Notice to the Surety, the Agency or the Contractor shall be mailed or delivered to the address shown on the signature page.
11. Definitions
 - 11.1 Balance of the Contract Sum: The total amount payable by the Agency to the Contractor under the Contract after all proper adjustments have been made, including allowance to the Contractor of any amounts to be received by the Agency in settlement of insurance or other Claims for damages to which the Contractor is entitled, reduced by all valid and proper payments made to or on behalf of the Contractor under the Contract.
 - 11.2 Contractor Default: Failure of the Contractor, which has neither been remedied nor waived, to perform the Contract or otherwise to comply with the terms of the Contract.

SE-357**LABOR & MATERIAL PAYMENT BOND****KNOW ALL MEN BY THESE PRESENTS**, that *(Insert full name or legal title and address of Contractor)*

Name: _____

Address: _____

hereinafter referred to as "Contractor", and *(Insert full name and address of principal place of business of Surety)*

Name: _____

Address: _____

hereinafter called the "surety", are jointly and severally held and firmly bound unto *(Insert full name and address of Agency)*Name: OCTC - Orangeburg - Calhoun Technical CollegeAddress: 3250 St. Matthews RoadOrangeburg, SC 29118

hereinafter referred to as "Agency", or its successors or assigns, the sum of _____ (\$ _____), being the sum of the Bond to which payment to be well and truly made, the Contractor and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, Contractor has by written agreement dated _____ entered into a contract with Agency to constructState Project Name: OCTC - Building R Canopy RepairState Project Number: OCTC-FY24-1

Brief Description of Awarded Work: _____

in accordance with Drawings and Specifications prepared by *(Insert full name and address of A/E)*Name: WM Building Envelope Consultants, LLCAddress: 1611 Chapin RoadChapin, SC 29036

which agreement is by reference made a part hereof, and is hereinafter referred to as the Contract.

IN WITNESS WHEREOF, Surety and Contractor, intending to be legally bound hereby, subject to the terms stated herein, do each cause this Labor & Material Payment Bond to be duly executed on its behalf by its authorized officer, agent or representative.

DATED this _____ **day of** _____, **2** _____
(shall be no earlier than Date of Contract)

BOND NUMBER _____**CONTRACTOR**

By: _____
 (Seal)

Print Name: _____**Print Title:** _____**Witness:** _____**SURETY**

By: _____
 (Seal)

Print Name: _____

Print Title: _____
(Attach Power of Attorney)

Witness: _____*(Additional Signatures, if any, appear on attached page)*

SE-357**LABOR & MATERIAL PAYMENT BOND****NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH THAT:**

1. The Contractor and the Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to the Agency to pay for all labor, materials and equipment required for use in the performance of the Contract, which is incorporated herein by reference.
2. With respect to the Agency, this obligation shall be null and void if the Contractor:
 - 2.1 Promptly makes payment, directly or indirectly, for all sums due Claimants; and
 - 2.2 Defends, indemnifies and holds harmless the Agency from all claims, demands, liens or suits by any person or entity who furnished labor, materials or equipment for use in the performance of the Contract.
3. With respect to Claimants, this obligation shall be null and void if the Contractor promptly makes payment, directly or indirectly, for all sums due.
4. With respect to Claimants, and subject to the provisions of Title 29, Chapter 5 and the provisions of §11-35-3030(2)(c) of the SC Code of Laws, as amended, the Surety's obligation under this Bond shall arise as follows:
 - 4.1 Every person who has furnished labor, material or rental equipment to the Contractor or its subcontractors for the work specified in the Contract, and who has not been paid in full therefore before the expiration of a period of ninety (90) days after the date on which the last of the labor was done or performed by him or material or rental equipment was furnished or supplied by him for which such claim is made, shall have the right to sue on the payment bond for the amount, or the balance thereof, unpaid at the time of institution of such suit and to prosecute such action for the sum or sums justly due him.
 - 4.2 A remote claimant shall have a right of action on the payment bond upon giving written notice by certified or registered mail to the Contractor within ninety (90) days from the date on which such person did or performed the last of the labor or furnished or supplied the last of the material or rental equipment upon which such claim is made.
 - 4.3 Every suit instituted upon a payment bond shall be brought in a court of competent jurisdiction for the county or circuit in which the construction contract was to be performed, but no such suit shall be commenced after the expiration of one year after the day on which the last of the labor was performed or material or rental equipment was supplied by the person bringing suit.
5. When the Claimant has satisfied the conditions of paragraph 4, the Surety shall promptly and at the Surety's expense take the following actions:
 - 5.1 Send an answer to the Claimant, with a copy to the Agency, within sixty (60) days after receipt of the claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed.
 - 5.2 Pay or arrange for payment of any undisputed amounts.
 - 5.3 The Surety's failure to discharge its obligations under this paragraph 5 shall not be deemed to constitute a waiver of defenses the Surety or Contractor may have or acquire as to a claim. However, if the Surety fails to discharge its obligations under this paragraph 5, the Surety shall indemnify the Claimant for the reasonable attorney's fees the Claimant incurs to recover any sums found to be due and owing to the Claimant.
6. Amounts owed by the Agency to the Contractor under the Contract shall be used for the performance of the Contract and to satisfy claims, if any, under any Performance Bond. By the Contractor furnishing and the Agency accepting this Bond, they agree that all funds earned by the contractor in the performance of the Contract are dedicated to satisfy obligations of the Contractor and the Surety under this Bond, subject to the Agency's prior right to use the funds for the completion of the Work.
7. The Surety shall not be liable to the Agency, Claimants or others for obligations of the Contractor that are unrelated to the Contract. The Agency shall not be liable for payment of any costs or expenses of any claimant under this bond, and shall have under this Bond no obligations to make payments to, give notices on behalf of, or otherwise have obligations to Claimants under this Bond.
8. The Surety hereby waives notice of any change, including changes of time, to the Contract or to related Subcontracts, purchase orders and other obligations.
9. Notice to the Surety, the Agency or the Contractor shall be mailed or delivered to the addresses shown on the signature page. Actual receipt of notice by Surety, the Agency or the contractor, however accomplished, shall be sufficient compliance as of the date received at the address shown on the signature page.
10. By the Contractor furnishing and the Agency accepting this Bond, they agree that this Bond has been furnished to comply with the statutory requirements of the South Carolina Code of Laws, as amended, and further, that any provision in this Bond conflicting with said statutory requirements shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. The intent is that this Bond shall be construed as a statutory Bond and not as a common law bond.
11. Upon request of any person or entity appearing to be a potential beneficiary of this bond, the Contractor shall promptly furnish a copy of this Bond or shall permit a copy to be made.
12. Any dispute, suit, action or proceeding arising out of or relating to this Bond shall be governed by the laws of the State of South Carolina.

13. DEFINITIONS

- 13.1 Claimant: An individual or entity having a direct contract with the Contractor or with a Subcontractor of the Contractor to furnish labor, materials, or equipment for use in the performance of the Contract. The intent of this Bond shall be to include without limitation in the terms "labor, materials or equipment" that part of water, gas, power, light, heat, oil, gasoline, telephone service or rental equipment used in the Contract, architectural and engineering services required for performance of the Work of the Contractor and the Contractor's Subcontractors, and all other items for which a mechanic's lien might otherwise be asserted.
- 13.2 Remote Claimant: A person having a direct contractual relationship with a subcontractor of the Contractor or subcontractor, but no contractual relationship expressed or implied with the Contractor.
- 13.3 Contract: The agreement between the Agency and the Contractor identified on the signature page, including all Contract Documents and changes thereto.

SE-381

CHANGE ORDER NO.: _____

CHANGE ORDER TO MINOR CONSTRUCTION CONTRACTAGENCY: OCTC - Orangeburg - Calhoun Technical CollegePROJECT NAME: OCTC - Building R Canopy RepairPROJECT NUMBER: OCTC-FY24-1

CONTRACTOR: _____

This Contract is changed as follows: *(Insert description of change in space provided below.)***ADJUSTMENTS IN THE CONTRACT SUM:**

1. Original Contract Sum:		\$
2. Change in Contract Sum by previously approved Change Orders:		
3. Contract Sum prior to this Change Order		\$ 0.00
4. Amount of this Change Order:		
5. New Contract Sum, including this Change Order:		\$ 0.00

ADJUSTMENTS IN THE CONTRACT TIME:

1. Initial Date for Substantial Completion:		
2. Sum of previously approved increases and decreases in Days:		Days
3. Change in Days for this Change Order		Days
4. Total Number of Days added to this Contract including this Change Order	0 Day	s
5. New Date for Substantial Completion:		

AGENCY ACCEPTANCE AND CERTIFICATION:

I certify that the Agency has authorized, unencumbered funds available for obligation to this contract.

BY: _____ Date: _____
(Signature of Representative)

Print Name of Representative: _____

Change is within Agency Construction Contract Change Order Certification of: \$ _____ Yes ☐ No ☐APPROVED BY: _____ DATE: _____
(OSE Project Manager)**SUBMIT THE FOLLOWING TO OSE**

1. SE-381, completed and signed by the Agency.
2. SE-381, Page 2, completed and signed by the Contractor, A/E and Agency, with back-up information to support request.

DOCUMENT 000107 - SEALS PAGE

1.1 DESIGN PROFESSIONAL OF RECORD

CONSULTANT Max Morrill, PE, RRC, RRO, REWO
WM Building Envelope Consultants



END OF DOCUMENT 000107

SECTION 011000 - SUMMARY

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section Includes:

- 1. Project information.
 - 2. Work covered by Contract Documents.
 - 3. Access to site.
 - 4. Coordination with occupants.
 - 5. Work restrictions.

- B. Related Requirements:

- 1. Division 01 General Requirements: Requirements of Sections in Division 01 apply to the Work of all Sections in the Specifications.

1.3 PROJECT INFORMATION

- A. Project Identification: OCTC - Building R Canopy Repair

- 1. Project Location: 3250 St. Matthews Road, Orangeburg, SC 29118

- B. Owner: Orangeburg Calhoun Technical College

- 1. Owner's Representative: Mr. R. Dean Felkel

- C. Consultant: Max Morrill, WM Building Envelope Consultants, LLC, 226 N. Live Oak Drive, Moncks Corner, SC. Phone: 352-397-8208 or max@wmbeconsultants.com

1.4 GENERAL SUMMARY

Base Bid

- 1. Scope of work includes modification of the existing canopy, repairs to the brick veneer at canopy to wall termination and roof repairs.

Alternate No. 1

1. Scope of work includes remove and dispose of the existing gravel surfaced built-up roof down to the existing metal deck. Provide tapered insulation, gypsum cover board, and two ply modified bitumen roof system including sheet metal components and accessories as required to provide a complete watertight, warrantable roof assembly.

1.5 ACCESS TO SITE

- A. General: Contractor shall have limited use of Project site for construction operations. These locations will be determined at the pre-bid conference.
- B. Use of Site: Limit use of project site to areas of work.
 1. Limits: Confine construction operations to areas of work.
 2. Driveways, Walkways and Entrances: Keep driveways, loading areas, and entrances serving premises clear and available to Owner, Owner's employees, and emergency vehicles at all times. Do not use these areas for parking or storage of materials.
 3. Tarps and other means to be provided to avoid flying debris.
 4. All requirements per the Owner shall be completed.
- C. Condition of Existing Building: Maintain portions of existing building affected by construction operations in a weathertight condition throughout construction period. Repair damage caused by construction operations.

1.6 COORDINATION WITH OCCUPANTS

- A. Full Owner Occupancy: Owner will occupy site and building during entire construction period. Cooperate with Owner during construction operations to minimize conflicts and facilitate Owner usage. Perform the Work so as not to interfere with Owner's day-to-day operations. Maintain existing exits unless otherwise indicated.
 1. Maintain access to existing walkways, corridors, and other adjacent occupied or used facilities. Do not close or obstruct walkways, corridors, or other occupied or used facilities without written permission from Owner and approval of authorities having jurisdiction.
 2. Notify Owner not less than 72 hours in advance of activities that will affect Owner's operations.

1.7 WORK RESTRICTIONS

- A. Work Restrictions, General: Comply with restrictions on construction operations.
 1. Comply with limitations on use of public streets and with other requirements of authorities having jurisdiction.

- B. On-Site Work Hours: Monday – Thursday (7am – 5pm) Friday (7:00 AM – 2:00 PM) Limit work on the existing building to normal business working hours, unless otherwise approved by owner. For weekend work, request approval from Owner by Wednesday at 12:00 pm.
1. Weekend Hours: Weekend work must be coordinated and approved by the Owner.
 2. Early Morning Hours: Noise creating work cannot commence until 7 am. Work occurring during early morning hours must be coordinated and approved by the Owner.
- C. Existing Utility Interruptions: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted under the following conditions and then only after providing temporary utility services according to requirements indicated:
1. Notify Consultant and Owner not less than 72 hours in advance of proposed utility interruptions.
 2. Obtain Owner’s written permission before proceeding with utility interruptions.
- D. Noise, Vibration, and Odors: Coordinate operations that may result in high levels of noise and vibration, odors, or other disruption to Owner occupancy with Owner.
- E. Nonsmoking Building: Smoking is not permitted on the Facility.
- F. Controlled Substances: Use of tobacco products and other controlled substances is not permitted.
- G. Safety: The safety and security of the staff and the general public are of utmost priority. To that end, the Contractor shall be responsible for ensuring that the Contractor’s employees, and any/all Subcontractors, comply with the following:
1. **NO drugs or alcohol on Owner property or adjacent thereto.** The Owner reserves the right to require the offending party be removed from Owner property immediately and to be replaced by the Contractor.
 2. **NO knives, firearms or other weapons on Owner property or adjacent thereto.** The offending party shall be reported to authorities and arrested.
 3. **NO fraternizing with, threats to, or use of abusive or profane language in the presence of Owner, agents, or employees.** The Owner reserves the right to require the offending party be removed from Owner property immediately and to be replaced by the Contractor.
 4. **NO improper attire or actions while on property or adjacent thereto.** The Owner reserves the right to require the offending party be removed from Owner property immediately and to be replaced by the Contractor.
 5. Secure **SLED (State Law Enforcement Division) criminal background checks** on all Contractor and subcontractor representatives, agents and employees performing work on property, and produce proof of such background checks upon request.

OCTC – Orangeburg - Calhoun Technical College
OCTC – Building R Canopy Repair
College Project No. OCTC-FY24-1

WM Project No. 2024-39

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 011000

SECTION 012200 - UNIT PRICES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for unit prices.

1.3 DEFINITIONS

- A. Unit price is a price per unit of measurement for materials, equipment, or services, or a portion of the Work, added to or deducted from the Contract Sum by appropriate modification, if the scope of Work or estimated quantities of Work required by the Contract Documents are increased or decreased.
- B. The base bid is to include unit price quantities included in the documents.

1.4 PROCEDURES

- A. Unit prices include all necessary material, plus cost for delivery, installation, insurance, applicable taxes, overhead, and profit.
- B. Measurement and Payment: See individual Specification Sections for work that requires establishment of unit prices. Methods of measurement and payment for unit prices are specified in those Sections.
- C. Owner reserves the right to reject Contractor's measurement of work-in-place that involves use of established unit prices and to have this work measured, at Owner's expense, by an independent surveyor acceptable to Contractor.
- D. The Contractor is required to notify the Consultant, in writing, when approximately 75% of unit price quantities have been used.
- E. List of Unit Prices: A schedule of unit prices is included in Part 3. Specification Sections referenced in the schedule contain requirements for materials described under each unit price.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 SCHEDULE OF UNIT PRICES

A. Unit Price No. 1: Wood Blocking Replacement

1. 100 BF

B. Unit Price No. 2: Metal Deck Replacement

1. 50 LF

END OF SECTION 012200

SECTION 012300 - ALTERNATES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for alternates.

- 1. Alternate No. 1

- a. Scope of work includes remove and dispose of the existing gravel surfaced built-up roof down to the existing metal deck. Provide tapered insulation, gypsum cover board, and two ply modified bitumen roof system including sheet metal components and accessories as required to provide a complete watertight, warrantable roof assembly.

1.3 DEFINITIONS

- A. Alternate: An amount proposed by bidders and stated on the Bid Form for certain work defined in the bidding requirements that may be added to or deducted from the base bid amount if Owner decides to accept a corresponding change either in the amount of construction to be completed or in the products, materials, equipment, systems, or installation methods described in the Contract Documents.

- 1. Alternates described in this Section are part of the Work only if enumerated in the Agreement.
 - 2. The cost or credit for each alternate is the net addition to or deduction from the Contract Sum to incorporate alternate into the Work. No other adjustments are made to the Contract Sum.

1.4 PROCEDURES

- A. Coordination: Revise or adjust affected adjacent work as necessary to completely integrate work of the alternate into Project.
 - 1. Include as part of each alternate, miscellaneous devices, accessory objects, and similar items incidental to or required for a complete installation whether or not indicated as part of alternate.

- B. Notification: Immediately following award of the Contract, notify each party involved, in writing, of the status of each alternate. Indicate if alternates have been accepted, rejected, or deferred for later consideration. Include a complete description of negotiated revisions to alternates.
- C. Execute accepted alternates under the same conditions as other work of the Contract.
- D. Schedule: A schedule of alternates is included at the end of this Section. Specification Sections referenced in schedule contain requirements for materials necessary to achieve the work described under each alternate.
- E. The Owner reserves the right to accept the alternate in any order.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 SCHEDULE OF ALTERNATES

- 1. Alternate No. 1
 - a. Scope of work includes remove and dispose of the existing gravel surfaced built-up roof down to the existing metal deck. Provide tapered insulation, gypsum cover board, and two ply modified bitumen roof system including sheet metal components and accessories as required to provide a complete watertight, warrantable roof assembly.

END OF SECTION 012300

SECTION 012900 - PAYMENT PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section includes administrative and procedural requirements necessary to prepare and process Applications for Payment.
- B. Related Requirements:
 - 1. Section 012100 "Allowance" for administrative requirements governing the use of the Allowance.
 - 2. Section 012200 "Unit Prices" for administrative requirements governing the use of unit prices.

1.3 DEFINITIONS

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

1.4 SCHEDULE OF VALUES

- A. Coordination: Coordinate preparation of the schedule of values with preparation of Contractor's construction schedule.
 - 1. Coordinate line items in the schedule of values with other required administrative forms and schedules, including the following:
 - a. Application for Payment forms with continuation sheets.
 - b. Submittal schedule.
 - c. Items required to be indicated as separate activities in Contractor's construction schedule.
 - 2. Submit the schedule of values to Consultant at earliest possible date, but no later than 7 days before the date scheduled for submittal of initial Applications for Payment.

- B. Format and Content: Use Project Manual table of contents as a guide to establish line items for the schedule of values. Provide at least one line item for each Specification Section.

1. Identification: Include the following Project identification on the schedule of values:
 - a. Project name and location.
 - b. Name of Consultant.
 - c. Consultant 's project number.
 - d. Contractor's name and address.
 - e. Date of submittal.
2. Schedule of values to be submitted on the AIA Document G703 form.
3. Arrange the schedule of values to indicate the following for each item listed:
 - a. Related Specification Section.
 - b. Description of the Work.
 - c. Change Orders (numbers) that affect value.
 - d. Dollar value of the following, as a percentage of the Contract Sum to nearest one-hundredth percent, adjusted to total 100 percent.
 - 1) Labor.
 - 2) Materials.
 - 3) Equipment.
 - 4) Allowance
 - 5) Unit Prices
4. Provide a separate line item in the schedule of values for each part of the Work where Applications for Payment may include materials or equipment purchased or fabricated and stored, but not yet installed.
 - a. Differentiate between items stored on-site and items stored off-site. If required, include evidence of insurance.

1.5 APPLICATIONS FOR PAYMENT

- A. Each Application for Payment following the initial Application for Payment shall be consistent with previous applications and payments as certified by Consultant and paid for by Owner.
1. Initial Application for Payment, Application for Payment at time of Substantial Completion, and final Application for Payment involve additional requirements.
- B. Payment Application Times: The date for each progress payment is indicated in the Agreement between Owner and Contractor. The period of construction work covered by each Application for Payment is the period indicated in the Agreement.
1. Submit draft copy of Application for Payment 7 days prior to due date for review by Architect.

- C. Application for Payment Forms: Use AIA Document G702 and AIA Document G703 as form for Applications for Payment.
- D. Application Preparation: Complete every entry on form. Notarize and execute by a person authorized to sign legal documents on behalf of Contractor. Consultant will return incomplete applications without action.
 - 1. Entries shall match data on the schedule of values and Contractor's construction schedule. Use updated schedules if revisions were made.
 - 2. Include amounts for work completed following previous Application for Payment, whether or not payment has been received. Include only amounts for work completed at time of Application for Payment.
 - 3. Include amounts of Change Orders and Construction Change Directives issued before last day of construction period covered by application.
 - 4. Indicate separate amounts for work being carried out under Owner-requested project acceleration.
 - 5. Indicate amount of Unit Price quantities used from Application for Payment to Application for Payment.
 - 6. Indicate all days where inclement weather days are being requested and work could not take place.
- E. Stored Materials: Include in Application for Payment amounts applied for materials or equipment purchased or fabricated and stored, but not yet installed. Differentiate between items stored on-site and items stored off-site.
 - 1. Provide certificate of insurance, evidence of transfer of title to Owner, and consent of surety to payment, for stored materials.
 - 2. Provide supporting documentation that verifies amount requested, such as paid invoices. Match amount requested with amounts indicated on documentation; do not include overhead and profit on stored materials.
 - 3. Provide summary documentation for stored materials indicating the following:
 - a. Value of materials previously stored and remaining stored as of date of previous Applications for Payment.
 - b. Value of previously stored materials put in place after date of previous Application for Payment and on or before date of current Application for Payment.
 - c. Value of materials stored since date of previous Application for Payment and remaining stored as of date of current Application for Payment.
- F. Transmittal: Submit three (3) signed and notarized original copies of each Application for Payment to Consultant by a method ensuring receipt within 24 hours. One copy shall include waivers of lien and similar attachments if required.
 - 1. Transmit each copy with a transmittal form listing attachments and recording appropriate information about application.
- G. Waivers of Mechanic's Lien: With each Application for Payment, submit waivers of mechanic's lien from entities lawfully entitled to file a mechanic's lien arising out of the Contract and related to the Work covered by the payment.

1. Submit partial waivers on each item for amount requested in previous application, after deduction for retainage, on each item.
 2. When an application shows completion of an item, submit conditional final or full waivers.
 3. Owner reserves the right to designate which entities involved in the Work must submit waivers.
 4. Waiver Forms: Submit executed waivers of lien on forms acceptable to Owner.
- H. Application for Payment at Substantial Completion: After Architect issues the Certificate of Substantial Completion, submit an Application for Payment showing 100 percent completion for portion of the Work claimed as substantially complete.
1. Include documentation supporting claim that the Work is substantially complete and a statement showing an accounting of changes to the Contract Sum.
 2. This application shall reflect Certificate(s) of Substantial Completion issued previously for Owner occupancy of designated portions of the Work.
- I. Final Payment Application: After completing Project closeout requirements, submit final Application for Payment with releases and supporting documentation not previously submitted and accepted, including, but not limited, to the following:
1. Evidence of completion of Project closeout requirements.
 2. Insurance certificates for products and completed operations where required and proof that taxes, fees, and similar obligations were paid.
 3. Updated final statement, accounting for final changes to the Contract Sum.
 4. AIA Document G706, "Contractor's Affidavit of Payment of Debts and Claims."
 5. AIA Document G706A, "Contractor's Affidavit of Release of Liens."
 6. AIA Document G707, "Consent of Surety to Final Payment."
 7. Evidence that claims have been settled.
 8. Final liquidated damages settlement statement.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 012900

SECTION 013300 - SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section includes requirements for the submittal schedule and administrative and procedural requirements for submitting Shop Drawings, Product Data, Samples, and other submittals.
- B. Related Requirements:
 - 1. Section 012900 "Payment Procedures" for submitting Applications for Payment and the schedule of values.

1.3 DEFINITIONS

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

1.4 ACTION SUBMITTALS

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

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

1. Coordinate submittal schedule with list of subcontracts, the schedule of values, and Contractor's construction schedule.
 - a. Submit revised submittal schedule to reflect changes in current status and timing for submittals.
2. Format: Arrange the following information in a tabular format:
 - a. Specification Section number and title.
 - b. Name of subcontractor.
 - c. Description of the Work covered.
 - d. Scheduled dates for installation.

1.5 SUBMITTAL ADMINISTRATIVE REQUIREMENTS

- A. Coordination: Coordinate preparation and processing of submittals with performance of construction activities.
 1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
 2. Submit all submittal items required for each Specification Section concurrently unless partial submittals for portions of the Work are indicated on approved submittal schedule.
 3. Submit action submittals and informational submittals required by the same Specification Section as separate packages under separate transmittals.
 4. Coordinate transmittal of different types of submittals for related parts of the Work so processing will not be delayed because of need to review submittals concurrently for coordination.
 - a. Consultant reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.
- B. Processing Time: Allow time for submittal review, including time for resubmittals, as follows. Time for review shall commence on Consultant's receipt of submittal. No extension of the Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing, including resubmittals.
 1. Initial Review: Allow 10 days for initial review of each submittal. Allow additional time if coordination with subsequent submittals is required. Consultant will advise Contractor when a submittal being processed must be delayed for coordination.
 2. Intermediate Review: If intermediate submittal is necessary, process it in same manner as initial submittal.
 3. Resubmittal Review: Allow 10 days for review of each resubmittal.
- C. Paper Submittals: Place a permanent label or title block on each submittal item for identification.

1. Include the following information for processing and recording action taken:
 - a. Project name.
 - b. Date.
 - c. Name of Consultant.
 - d. Name of Contractor.
 - e. Name of subcontractor.
 - f. Number and title of appropriate Specification Section.
 - g. Drawing number and detail references, as appropriate.
 - h. Other necessary identification.
 2. Submit three bound copies of submittal to Consultant.
- D. Resubmittals: Make resubmittals in same form and number of copies as initial submittal.
1. Note date and content of previous submittal.
 2. Note date and content of revision in label or title block and clearly indicate extent of revision.
 3. Resubmit submittals until they are marked with approval notation from Consultant's action stamp.
- E. Distribution: Furnish copies of final submittals to subcontractors, suppliers, fabricators, installers, and others as necessary for performance of construction activities. Show distribution on transmittal forms.
- F. Use for Construction: Retain complete copies of submittals on Project site. Use only final action submittals that are marked with approval notation from Consultant's action stamp. Ensure that all submitted items "Not Approved" for use are included in field set and clearly marked "Not Approved for Use."

PART 2 - PRODUCTS

2.1 SUBMITTAL PROCEDURES

- A. General Submittal Procedure Requirements: Prepare and submit submittals required by individual Specification Sections. Types of submittals are indicated in individual Specification Sections.
1. Submit electronic submittals via email as PDF electronic files.
 - a. Consultant will return annotated file. Annotate and retain one copy of file as an electronic Project record document file.
 2. Applications for Payment: Provide three original copies that include the signature of an officer or other individual authorized to sign documents on behalf of that entity and shall be notarized.

- B. Product Data: Collect information into a single submittal for each element of construction and type of product or equipment.
 - 1. If information must be specially prepared for submittal because standard published data are not suitable for use, submit as Shop Drawings, not as Product Data.
 - 2. Mark each copy of each submittal to show which products and options are applicable.
 - 3. Include the following information, as applicable:
 - a. Manufacturer's catalog cuts.
 - b. Manufacturer's product specifications.
 - c. Standard color charts.
 - d. Statement of compliance with specified referenced standards.
 - e. Testing by recognized testing agency.
 - f. Application of testing agency labels and seals.
 - g. Notation of coordination requirements.
 - h. Availability and delivery time information.
 - 4. Submit Product Data with Samples.
- C. Shop Drawings: Prepare Project-specific information. Do not base Shop Drawings on reproductions of the Contract Documents.
 - 1. Preparation: Fully illustrate requirements in the Contract Documents. Include the following information, as applicable:
 - a. Identification of products.
 - b. Compliance with specified standards.
 - c. Notation of coordination requirements.
 - d. Notation of dimensions established by field measurement.
 - e. Relationship and attachment to adjoining construction clearly indicated.
 - f. Seal and signature of professional engineer if specified.
- D. Coordination Drawing Submittals: Comply with requirements specified in Section 013100 "Project Management and Coordination."
- E. Application for Payment and Schedule of Values: Comply with requirements specified in Section 012900 "Payment Procedures."
- F. Test and Inspection Reports and Schedule of Tests and Inspections Submittals: Comply with requirements specified in Section 014000 "Quality Requirements."
- G. Closeout Submittals and Maintenance Material Submittals: Comply with requirements specified in Section 017700 "Closeout Procedures."
- H. Qualification Data: Prepare written information that demonstrates capabilities and experience of firm or person. Include lists of completed projects with project names and addresses, contact information of architects and owners, and other information specified.

- I. Installer Certificates: Submit written statements on manufacturer's letterhead certifying that Installer complies with requirements in the Contract Documents and, where required, is authorized by manufacturer for this specific Project.
- J. Manufacturer Certificates: Submit written statements on manufacturer's letterhead certifying that manufacturer complies with requirements in the Contract Documents. Include evidence of manufacturing experience where required.
- K. Material Certificates: Submit written statements on manufacturer's letterhead certifying that materials comply with requirements in the Contract Documents.
- L. Material Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting test results of material for compliance with requirements in the Contract Documents.
- M. Product Test Reports: Submit written reports indicating that current product produced by manufacturer complies with requirements in the Contract Documents. Base reports on evaluation of tests performed by manufacturer and witnessed by a qualified testing agency, or on comprehensive tests performed by a qualified testing agency.
- N. Indicate that products and systems comply with performance and design criteria in the Contract Documents. Include list of codes, loads, and other factors used in performing these services.

PART 3 - EXECUTION

3.1 CONTRACTOR'S REVIEW

- A. Action and Informational Submittals: Review each submittal and check for coordination with other Work of the Contract and for compliance with the Contract Documents.
- B. Project Closeout and Maintenance Material Submittals: See requirements in Section 017700 "Closeout Procedures."

3.2 CONSULTANT'S ACTION

- A. Action Submittals: Consultant will review each submittal, make marks to indicate corrections or revisions required, and return it. Consultant will stamp each submittal with an action stamp and will mark stamp appropriately to indicate action required.
- B. Informational Submittals: Consultant will review each submittal and will not return it or will return it if it does not comply with requirements. Consultant will forward each submittal to appropriate party.
- C. Incomplete submittals are unacceptable and will be returned for resubmittal without review.
- D. Submittals not required by the Contract Documents may be returned by the Consultant without action.

END OF SECTION 013300

SECTION 015000 - TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section includes requirements for temporary utilities, support facilities, and security and protection facilities.
- B. Related Requirements:
 - 1. Section 011000 "Summary" for work restrictions and limitations on utility interruptions.

1.3 USE CHARGES

- A. General: Installation and removal of and use charges for temporary facilities shall be included in the Contract Sum unless otherwise indicated. Allow other entities to use temporary services and facilities without cost, including, but not limited to Consultant, testing agencies, and authorities having jurisdiction.
- B. Water Service: Coordinate with the Owner.
- C. Electric Power Service: Power shall be provided the Contractor at the Contractor's expense. Contractor is responsible for any damages incurred to the service by their work.
- D. Contractor shall provide connections and extensions needed to services at no cost to the Owner and shall return to original condition when services are no longer needed. At no time shall the services be disrupted by construction operations.

1.4 SUBMITTALS

- A. Site Plan: Show temporary facilities, utility hookups, staging areas, and parking areas for construction personnel.
- B. Fire-Safety Program: Show compliance with requirements of NFPA 241 and authorities having jurisdiction. Indicate Contractor personnel responsible for management of fire-prevention program.
- C. Moisture-Protection Plan: Describe procedures and controls for protecting materials and construction from water absorption and damage.

1. Describe delivery, handling, and storage provisions for materials subject to water absorption or water damage.
 2. Indicate procedures for discarding water-damaged materials, protocols for mitigating water intrusion into completed Work, and replacing water-damaged Work.
 3. Indicate sequencing of work that requires water and describe plans for dealing with water from these operations. Show procedures for verifying that wet construction has dried sufficiently to permit installation of finish materials.
- D. Dust- and HVAC-Control Plan: Submit coordination drawing and narrative that indicates the dust- and HVAC-control measures proposed for use, proposed locations, and proposed time frame for their operation. Identify further options if proposed measures are later determined to be inadequate. Include the following:
1. Locations of dust-control partitions at each phase of work.
 2. Air-filtration system needed at intakes.
 3. Other dust-control measures.

1.5 QUALITY ASSURANCE

- A. Electric Service: Comply with NECA, NEMA, and UL standards and regulations for temporary electric service. Install service to comply with NFPA 70.
- B. Tests and Inspections: Arrange for authorities having jurisdiction to test and inspect each temporary utility before use. Obtain required certifications and permits.
- C. Accessible Temporary Egress: Comply with applicable provisions in the U.S. Architectural & Transportation Barriers Compliance Board's ADA-ABA Accessibility Guidelines and ICC/ANSI A117.1.

1.6 PROJECT CONDITIONS

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

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Safety flagging, signage, etc.

2.2 TEMPORARY FACILITIES

- A. Storage: Material will be stored in the laydown location that will be determined at the Pre-Bid conference.
 - 1. Material will be stored under tarps at all times in laydown location
 - 2. Store any combustible materials apart from building.
 - 3. All dumpsters / containers shall be covered at all times with either tarp or netting.
- B. Portable Restrooms: Portable restrooms are required.
 - 1. Portable restrooms are to be cleaned and maintained on a regular basis.
 - 2. Location to be selected by the Owner during the Pre-Bid conference.

2.3 EQUIPMENT

- A. Fire Extinguishers: Portable, UL rated; with class and extinguishing agent as required by locations and classes of fire exposures.
- B. Air-Filters: Provide charcoal filters or other Owner recommended filter at all HVAC intakes for the duration of the work.

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

- A. Locate facilities where they will serve Project adequately and result in minimum interference with performance of the Work. Relocate and modify facilities as required by progress of the Work.
 - 1. Locate facilities to limit site disturbance as specified in Section 011000 "Summary."
- B. Provide each facility ready for use when needed to avoid delay. Do not remove until facilities are no longer needed or are replaced by authorized use of completed permanent facilities.

3.2 TEMPORARY UTILITY INSTALLATION

- A. General: Install temporary service or connect to existing service.
 - 1. Arrange with utility company, Owner, and existing users for time when service can be interrupted, if necessary, to make connections for temporary services.
- B. Water Service: Connect to Owner's existing water service facilities. Clean and maintain water service facilities in a condition acceptable to Owner. At Substantial Completion, restore these facilities to condition existing before initial use.

- C. Sanitary Facilities: Provide temporary toilets, wash facilities, and drinking water for use of construction personnel. Comply with requirements of authorities having jurisdiction for type, number, location, operation, and maintenance of fixtures and facilities.
 - 1. Toilets: Use of Owner's existing toilet facilities will not be permitted.
- D. Work Areas in Occupied Facilities: Prevent dust, fumes, and odors from entering occupied areas.
 - 1. Prior to commencing work, provide charcoal filters or other Owner recommended filter at all HVAC intakes for the duration of the work.
- E. Electric Power Service: Connect to Owner's existing electric power service. Maintain equipment in a condition acceptable to Owner. If additional power is needed other than what is provided by the Owner, Contractor is to provide electric power service and distribution system of sufficient size, capacity, and power characteristics required for construction operations.
 - 1. Connect temporary service to Owner's existing power source, as directed by Owner.
- F. Telephone Service: Contractor to provide superintendent with cellular telephone or portable two-way radio for use during construction.

3.3 SUPPORT FACILITIES INSTALLATION

- A. Traffic Controls: Comply with requirements of the Owner.
 - 1. Protect existing site including curbs, pavement, and utilities.
 - 2. Maintain access for fire-fighting equipment and access to fire hydrants.
- B. Parking: Use areas designated by the Owner for parking of construction vehicles.
 - 1. Location to be selected by the Owner during the Pre-Bid conference.
- C. Project Signs: Provide Project signs as indicated. Unauthorized signs are not permitted.
 - 1. Temporary Signs: Provide signs informing public/individuals seeking entrance to Project facility.
 - a. Provide temporary, directional signs for construction personnel, building occupants and visitors.
 - 2. Maintain and touchup signs so they are legible at all times.
- D. Waste Disposal Facilities: Provide waste-collection containers in sizes adequate to handle waste from construction operations. Comply with requirements of authorities having jurisdiction. Comply with progress cleaning requirements in Section 017300 "Execution."
- E. Lifts and Hoists: Provide facilities necessary for hoisting materials and personnel.

1. If needed truck cranes and similar devices used for hoisting materials are considered "tools and equipment"

- F. Temporary Access: Provide temporary exterior scaffolding, stairs or ladders as required to access areas of work.

3.4 SECURITY AND PROTECTION FACILITIES INSTALLATION

- A. Protection of Existing Facilities: Protect existing vegetation, equipment, structures, utilities, and other improvements at Project site and on adjacent properties, except those indicated to be removed or altered. Repair damage to existing facilities.
- B. Environmental Protection: Provide protection, operate temporary facilities, and conduct construction as required to comply with environmental regulations and that minimize possible air, waterway, and subsoil contamination or pollution or other undesirable effects.
 1. Comply with work restrictions specified in Section 011000 "Summary."
- C. Security Enclosure and Lockup: Install temporary enclosure around partially completed areas of construction. Provide lockable entrances to prevent unauthorized entrance, vandalism, theft, and similar violations of security. Lock entrances at end of each work day.
- D. Barricades, Warning Signs, and Lights: Comply with requirements of authorities having jurisdiction for erecting structurally adequate barricades, including warning signs and lighting.
- E. Temporary Egress: Maintain temporary egress from existing occupied facilities as indicated and as required by authorities having jurisdiction.
- F. Temporary Enclosures: Provide temporary enclosures for protection of construction, in progress and completed, from exposure, foul weather, other construction operations, and similar activities. Provide temporary weathertight enclosure for building exterior.
- G. Temporary Fire Protection: Install and maintain temporary fire-protection facilities of types needed to protect against reasonably predictable and controllable fire losses. Comply with NFPA 241; manage fire-prevention program.
 1. Smoking is not permitted on property.
 2. Supervise welding operations, combustion-type temporary heating units, and similar sources of fire ignition according to requirements of authorities having jurisdiction.
 3. Develop and supervise an overall fire-prevention and -protection program for personnel at Project site. Review needs with local fire department and establish procedures to be followed. Instruct personnel in methods and procedures. Post warnings and information.
 4. Provide temporary standpipes and hoses for fire protection. Hang hoses with a warning sign stating that hoses are for fire-protection purposes only and are not to be removed. Match hose size with outlet size and equip with suitable nozzles.

3.5 MOISTURE AND MOLD CONTROL

- A. Contractor's Moisture-Protection Plan: Avoid trapping water in finished work. Document visible signs of mold that may appear during construction.
- B. Exposed Construction Phase: Before installation of weather barriers, when materials are subject to wetting and exposure and to airborne mold spores, protect as follows:
 - 1. Protect porous materials from water damage.
 - 2. Protect stored and installed material from flowing or standing water.
 - 3. Keep porous and organic materials from coming into prolonged contact with concrete.
 - 4. Remove standing water from decks.
 - 5. Keep deck openings covered.
- C. Construction Phase: During installation of materials and when installed materials are subject to infiltration of moisture, protect as follows:
 - 1. Discard or replace water-damaged material.
 - 2. Do not install material that is wet.
 - 3. Discard and replace material that is or has been wet.

3.6 OPERATION, TERMINATION, AND REMOVAL

- A. Supervision: Enforce strict discipline in use of temporary facilities. To minimize waste and abuse, limit availability of temporary facilities to essential and intended uses.
- B. Maintenance: Maintain facilities in good operating condition until removal.
 - 1. Maintain operation of temporary enclosures, heating, cooling, humidity control, ventilation, and similar facilities on a 24-hour basis where required to achieve indicated results and to avoid possibility of damage.
- C. Termination and Removal: Remove each temporary facility when need for its service has ended, when it has been replaced by authorized use of a permanent facility, or no later than Substantial Completion. Complete or, if necessary, restore permanent construction that may have been delayed because of interference with temporary facility. Repair damaged Work, clean exposed surfaces, and replace construction that cannot be satisfactorily repaired.
 - 1. Materials and facilities that constitute temporary facilities are property of Contractor. Owner reserves right to take possession of Project identification signs.
 - 2. At Substantial Completion, repair, renovate, and clean permanent facilities used during construction period. Comply with final cleaning requirements specified in Section 017700 "Closeout Procedures."

END OF SECTION 015000

Asbestos Free Warranty

Project Identification: OCTC - Building R Canopy Repair

Agency: Orangeburg Calhoun Technical College

Project Location: 3250 St. Matthews Road, Orangeburg, SC 29118

Project Number: OCTC-FY24-1

I, _____, certify that _____
(Company Representative) (Company Name)

to the best of the Contractor's knowledge, did not intentionally or knowingly incorporate any asbestos containing materials (ACM) into this project at any time during the course of construction.

(Name and Title of Company Representative)

State of: _____

County of: _____

Subscribed and sworn to before _____, this ____ day of _____, 20__.

Notary Public: _____

My Commission Expires: _____

SECTION 024119 - SELECTIVE DEMOLITION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the contract, including the General and Supplemental Conditions, as well as other Division 01 Specification Sections, apply to this section.

1.2 SUMMARY

- A. Section Includes:

- 1. Demolition and removal of existing low slope gravel surface built up roof system down to the roof deck at the location where the canopy structure will be removed.
 - 2. Demolition and removal of metal wall panels, sub-framing, rough carpentry, and structural steel as necessary to

- B. Related Requirements:

- 1. Section 011000 "Summary"
 - 2. Section 017300 "Execution"

1.3 DEFINITIONS

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

1.4 MATERIALS OWNERSHIP

- A. Unless otherwise indicated, demolition waste becomes property of Contractor.

1.5 PREINSTALLATION MEETINGS

- A. Predemolition Conference: Conduct conference at Project site.
 - 1. Inspect and discuss condition of construction to be selectively demolished.
 - 2. Review structural load limitations of existing structure.
 - 3. Review and finalize selective demolition schedule and verify availability of materials, demolition personnel, equipment, and facilities needed to make progress and avoid delays.
 - 4. Review requirements of work performed by other trades that rely on substrates exposed by selective demolition operations.
 - 5. Review areas where existing construction is to remain and requires protection.

1.6 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For refrigerant recovery technician.
- B. Predemolition Photographs or Video: Submit before Work begins.
- C. Proposed Protection Measures: Submit report, including drawings, that indicates the measures proposed for protecting individuals and property for dust control and for noise control. Indicate proposed locations and construction of barriers.
- D. Schedule of Selective Demolition Activities: Indicate the following:
 - 1. Detailed sequence of selective demolition and removal work, with starting and ending dates for each activity. Ensure Owner's on-site operations are uninterrupted.
 - 2. Interruption of utility services. Indicate how long utility services will be interrupted.
 - 3. Coordination for shutoff, capping, and continuation of utility services.
 - 4. Use of elevator and stairs.
 - 5. Coordination of Owner's continuing occupancy of portions of existing building and of Owner's partial occupancy of completed Work.

1.7 CLOSEOUT SUBMITTALS

- A. Landfill Records: Indicate receipt and acceptance of hazardous wastes by a landfill facility licensed to accept hazardous wastes.

1.8 FIELD CONDITIONS

- A. Owner will occupy portions of building immediately adjacent to selective demolition area. Conduct selective demolition so Owner's operations will not be disrupted.
- B. Conditions existing at time of inspection for bidding purpose will be maintained by Owner as far as practical.

- C. Notify Consultant of discrepancies between existing conditions and Drawings before proceeding with selective demolition.
- D. If any suspected hazardous materials are encountered, do not disturb; immediately notify Consultant and Owner. Hazardous materials will be removed by Owner under a separate contract.
- E. Storage or sale of removed items or materials on-site is not permitted.
- F. Utility Service: Maintain existing utilities indicated to remain in service and protect them against damage during selective demolition operations.
 - 1. Maintain fire-protection facilities in service during selective demolition operations.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

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

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify that utilities have been disconnected and capped before starting selective demolition operations.
- B. Survey existing conditions and correlate with requirements indicated to determine extent of selective demolition required.
- C. When unanticipated mechanical, electrical, or structural elements that conflict with intended function or design are encountered, investigate, and measure the nature and extent of conflict. Promptly submit a written report to Consultant.
- D. Engage a professional engineer (if any structural element will be modified, removed, and/or addressed) to perform an engineering survey of condition of building to determine whether removing any element might result in structural deficiency or unplanned collapse of any portion of structure or adjacent structures during selective building demolition operations.
- E. Survey of Existing Conditions: Record existing conditions by use of preconstruction photographs.

3.2 UTILITY SERVICES AND MECHANICAL/ELECTRICAL SYSTEMS

- A. Existing Services/Systems to Remain: Maintain services/systems indicated to remain and protect them against damage.
 - 1. Comply with requirements for existing services/systems interruptions specified in Section 011000 "Summary."
- B. Existing Services/Systems to Be Removed, Relocated, or Abandoned: Locate, identify, disconnect, and seal or cap off indicated utility services and mechanical/electrical systems serving areas to be selectively demolished.
 - 1. Owner will arrange to shut off indicated services/systems when requested by Contractor.
 - 2. Arrange to shut off indicated utilities with utility companies.
 - 3. If services/systems are required to be removed, relocated, or abandoned, provide temporary services/systems that bypass area of selective demolition and that maintain continuity of services/systems to other parts of building.
 - 4. Disconnect, demolish, and remove fire-suppression systems, plumbing, and HVAC systems, equipment, and components indicated to be removed.
 - a. Piping to Be Removed: Remove portion of piping indicated to be removed and cap or plug remaining piping with same or compatible piping material.
 - b. Piping to Be Abandoned in Place: Drain piping and cap or plug piping with same or compatible piping material.
 - c. Equipment to Be Removed: Disconnect and cap services and remove equipment.
 - d. Equipment to Be Removed and Reinstalled: Disconnect and cap services and remove, clean, and store equipment; when appropriate, reinstall, reconnect, and make equipment operational.
 - e. Equipment to Be Removed and Salvaged: Disconnect and cap services and remove equipment and deliver to Owner.
 - f. Ducts to Be Removed: Remove portion of ducts indicated to be removed and plug remaining ducts with same or compatible ductwork material.
 - g. Ducts to Be Abandoned in Place: Cap or plug ducts with same or compatible ductwork material.

3.3 PREPARATION

- A. Site Access and Temporary Controls: Conduct selective demolition and debris-removal operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.
- B. Temporary Facilities: Provide temporary barricades and other protection required to prevent injury to people and damage to adjacent buildings and facilities to remain.
- C. Temporary Shoring: Provide and maintain shoring, bracing, and structural supports as required to preserve stability and prevent movement, settlement, or collapse of construction and finishes to remain, and to prevent unexpected or uncontrolled movement or collapse of construction being demolished.

3.4 SELECTIVE DEMOLITION, GENERAL

- A. General: Demolish and remove existing roof system only to the extent required by new roof system and as indicated. Use methods required to complete the Work within limitations of governing regulations and as follows:
1. Neatly cut roof system in straight lines taking in account tie in locations in relation to existing water flow. Use cutting methods least likely to damage construction to remain or adjoining construction. Use hand tools or small power tools designed for sawing or grinding, not hammering and chopping, to minimize disturbance of adjacent surfaces. Temporarily cover openings to remain. Do not cut roof system creating a back lap for sheeting water to drain.
 2. Cut or drill from the exposed or finished side into concealed surfaces to avoid marring existing finished surfaces.
 3. Remove all existing fasteners utilizing mechanical drills.
 4. Remove existing roofing materials down to roof deck.
 5. Do not use cutting torches until work area is cleared of flammable materials. At concealed spaces, such as duct and pipe interiors, verify condition and contents of hidden space before starting flame-cutting operations.
 6. Maintain fire watch and portable fire-suppression devices during flame-cutting operations and/or torching of roof system. Fire watch shall be a minimum of 2 hours.
 7. Locate selective demolition equipment and remove debris and materials so as not to impose excessive loads on supporting walls, floors, or framing.
 8. Remove all demolished items from roof in a manner to not damage exterior of facility and select locations determined by Owner.
- B. Removed and Reinstalled Items:
1. Clean and repair items to functional condition adequate for intended reuse.
 2. Pack or crate items after cleaning and repairing. Identify contents of containers.
 3. Protect items from damage during transport and storage.
 4. Reinstall items in locations indicated. Comply with installation requirements for new materials and equipment. Provide connections, supports, and miscellaneous materials necessary to make item functional for use indicated.
- C. Existing Items to Remain: Protect construction indicated to remain against damage and soiling during selective demolition. When permitted by Consultant, items may be removed to a suitable, protected storage location during selective demolition and cleaned and reinstalled in their original locations after selective demolition operations are complete.

3.5 SELECTIVE DEMOLITION PROCEDURES FOR SPECIFIC MATERIALS

- A. Concrete: Demolish in small sections. Using power-driven saw, cut concrete to a depth of at least 3/4 inch at junctures with construction to remain. Dislodge concrete from reinforcement at perimeter of areas being demolished, cut reinforcement, and then remove remainder of concrete. Neatly trim openings to dimensions indicated.

- B. Concrete: Demolish in sections. Cut concrete full depth at junctures with construction to remain and at regular intervals using power-driven saw, then remove concrete between saw cuts.
- C. Masonry: Demolish in small sections. Cut masonry at junctures with construction to remain, using power-driven saw, then remove masonry between saw cuts.
- D. Concrete Slabs-on-Grade: Saw-cut perimeter of area to be demolished, then break up and remove.
- E. Roofing: Remove no more existing roofing than what can be covered in one day by new roofing and so that building interior remains watertight and weathertight. See Section 075216 – “SBS Modified Bitumen Membrane Roofing” for new roofing requirements.
 - 1. Remove existing roof membrane, flashings, copings, and roof accessories as necessary to modify existing canopy and provide proper tie-ins.
 - 2. Alternate No. 01 - Remove existing roofing system down to substrate.

3.6 DISPOSAL OF DEMOLISHED MATERIALS

- A. General: Except for items or materials indicated to be recycled, reused, salvaged, reinstalled, or otherwise indicated to remain Owner's property, remove demolished materials from Project site and legally dispose of them in an approved landfill.
 - 1. Do not allow demolished materials to accumulate on-site.
 - 2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
 - 3. Remove debris from elevated portions of building by chute, hoist, or other device that will convey debris to grade level in a controlled descent.
- B. Burning: Do not burn demolished materials.
- C. Disposal: Transport demolished materials off Owner's property and legally dispose of them.

3.7 CLEANING

- A. Clean adjacent structures and improvements of dust, dirt, and debris caused by selective demolition operations. Return adjacent areas to condition existing before selective demolition operations began.

END OF SECTION 024119

SECTION 040120 – MAINTENANCE OF UNIT MASONRY

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section Includes:

- 1. Section includes maintenance of brick masonry as follows:
 - a. Remove brick masonry that has been displaced. Replace damaged/broken brick masonry with new brick to match existing.
 - b. Reinstall brick masonry.

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product.
 - 1. Include Manufacturer's Product Data Sheets for all materials specified verifying that all materials supplied comply with all requirements of the identified ASTM and industry standards of practice.
- B. Samples for Initial Selection: Provide mortar color samples to match existing mortar for approval by Consultant and Owner.
- C. Samples for Verification: Provide in-situ samples of mortar for Owner selection.

1.4 CLOSEOUT SUBMITTALS

- A. Mix and Color Data: Provide product data sheets indicating project specific mortar mix and colors used on the project for record.

1.5 PROJECT CONDITIONS

- A. Protect newly pointed joints from rain, until pointed joints are sufficiently hard enough to prevent damage.
- B. Cold Weather Protection:

1. Repointing may be performed in freezing weather when methods of protection are utilized.
2. Comply with applicable sections of "Recommended Practices for Cold Weather Construction" as published by International Masonry Industry All Weather Council.
3. Maintain surfaces at temperatures to prevent mortar from freezing or causing other damage to mortar.

1.6 MATERIAL STORAGE

- A. All materials shall be properly stored in accordance with industry standards and the manufacturer's guidelines.
 1. Use good tarps, free of holes and tears. Secure properly.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Mortar:
 1. Portland Cement: ASTM C 150, Type 1
 2. Hydrated Lime: ASTM C 207 S
 3. Masonry Cements: ASTM C 91, Type N
- B. Sand: ASTM C 144
 1. Light colored sand for mortar used for repointing.
 2. White plastering sand meeting sieve analysis for mortar joints for pointing and laying structural facing tile units except that 100 percent passes No. 8 sieve and not more than 5 percent retained on No. 16 Sieve.
 3. Test sand for color value in accordance with ASTM C40. Sand producing color darker than specified standard is not permitted.
- C. Admixtures:
 1. No air-entraining admixtures or materials containing air-entraining admixtures.
 2. No antifreezing compounds shall be added to mortar.
 3. No admixtures containing chlorides shall be added to mortar.
- D. Water: Clean and potable.
- E. Mortar Pigment:
 1. ASTM C979: Pigment shall not exceed ten percent of the weight of Portland Cement.
 2. Carbon black shall not exceed two percent of the weight of Portland Cement.
 3. Color of mortar shall match existing.

PART 3 - EXECUTION

3.1 BRICK REPAIR

A. PREPERATION:

1. Cut out existing mortar joints (both bed and head joints) and remove by means of a toothing chisel or a special pointer's grinder. Take care to not damage edges of existing masonry units to remain.
2. Salvage existing brick to be reused. Clean all existing mortar from salvaged brick. If brick is chipped or broken, replace with new to match existing.
3. Remove dust and debris from the joints by brushing, blowing with air or rinsing with water. Do not rinse when temperature is below freezing.

B. INSTALLATION:

1. Set brick in mortar, ensure full bed and head joints.
2. Provide brick ties 16" vertically and 16" horizontally.
3. When mortar becomes "thumbprint hard", tool joints.
4. Tooling of Joints:
 - a. Tool joints with a jointing tool to produce a smooth, compacted, concaved joint.
 - b. Tool joints in patch work with a jointing tool to match the existing surrounding joints.

3.2 CLEANING:

- A. Clean exposed masonry surfaces on completion.
- B. Remove mortar droppings and other foreign substances from wall surfaces.
- C. First wet surfaces with clean water then wash down with a solution of soapless detergent specially prepared for cleaning brick.
- D. Brush with stiff fiber brushes while washing, and immediately thereafter hose down with clean water.
- E. Free clean surfaces from traces of detergent, foreign streaks or stains. Protect materials during cleaning operations including adjoining construction.
- F. Use of muriatic acid for cleaning is prohibited.

END OF SECTION 040120

SECTION 053100 - STEEL DECKING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section Includes:

- 1. A Metal Roof Deck Replacement quantity is provided in Section 012200 "Unit Prices" and is to be used to replace the existing steel deck and associated component. This is to be included in the base bid. A unit price is also required to be provided to adjust the contract sum based on the actual amount used.
- 2. Metal Roof Deck Repairs where existing roof deck locations are rusted and require sanding, priming, and painting. This is to be included in the base bid.
- 3. Installation of additional fasteners of roof deck into structural steel where additional fasteners are required. This is to be included in the base bid.

- B. Related Requirements:

- 1. Section 012200 "Unit Prices".

1.3 REFERENCES

- A. Steel Deck Institute (SDI)

- 1. Manual of Construction with Steel Deck – No. MOC3
- 2. SDI Roof Deck Design Manual – No. RDDM

1.4 ACTION SUBMITTALS

- A. Product Data: For each type of deck, accessory, and product indicated.

- B. Shop Drawings:

- 1. Include layout and types of deck panels, anchorage details, reinforcing channels, pans, cut deck openings, special jointing, accessories, and attachments to other construction.

1.5 INFORMATIONAL SUBMITTALS

- A. Product Test Reports: Based on evaluation of comprehensive tests performed by a qualified testing agency, indicating that each of the following complies with requirements:
 - 1. Power-actuated mechanical fasteners.
- B. Evaluation Reports: For steel deck.
- C. Field quality-control reports.

1.6 QUALITY ASSURANCE

- A. Testing Agency Qualifications: Qualified according to ASTM E 329 for testing indicated.
- B. Welding Qualifications: Qualify procedures and personnel according to AWS D1.3, "Structural Welding Code - Sheet Steel."

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Protect steel deck from corrosion, deformation, and other damage during delivery, storage, and handling.
- B. Stack steel deck on platforms or pallets and slope to provide drainage. Protect with a waterproof covering and ventilate to avoid condensation.
 - 1. Protect and ventilate acoustical cellular roof deck with factory-installed insulation to maintain insulation free of moisture.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. AISI Specifications: Comply with calculated structural characteristics of steel deck according to AISI's "North American Specification for the Design of Cold-Formed Steel Structural Members."
- B. Fire-Resistance Ratings: Comply with ASTM E 119; testing by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.
 - 1. Indicate design designations from UL's "Fire Resistance Directory" or from the listings of another qualified testing agency.
- C. Low-Emitting Materials: Paints and coatings shall comply with the testing and product requirements of the California Department of Health Services' "Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers."

2.2 ROOF DECK

- A. Roof Deck: Provide deck panels to match existing in type and profile, to comply with "SDI Specifications and Commentary for Steel Roof Deck," in SDI Publication No. 31, and with the following:
 - 1. Galvanized-Steel Sheet: ASTM A 653/A 653M, Structural Steel (SS), minimum 22 gage with zinc coating.
 - 2. Side Laps: Overlapped and screw fastened.

2.3 ACCESSORIES

- A. General: Provide manufacturer's standard accessory materials for deck that comply with requirements indicated.
- B. Mechanical Fasteners: Corrosion-resistant, low-velocity, self-drilling, self-threading screws.
- C. Side-Lap Fasteners: Corrosion-resistant, hexagonal washer head; self-drilling, carbon-steel screws, No. 10 minimum diameter.
- D. Galvanizing Repair Paint: SSPC-Paint 20 or MIL-P-21035B, with dry film containing a minimum of 94 percent zinc dust by weight.
- E. Repair Paint: Manufacturer's standard rust-inhibitive primer of same color as primer.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine supporting frame and field conditions for compliance with requirements for installation tolerances and other conditions affecting performance.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.
- C. ROOF DECK FASTENER INSTALLATION: Examine roof deck for attachment patterns in the field and perimeter conditions. Fasteners shall be provided attaching roof deck to structural steel a minimum of 6" O.C. in the field and 6" O.C. in the perimeter condition. Fasteners shall be provided in the deck laps 6" O.C. in deck laps.
 - 1. Side laps shall be attached 6" O.C. in field, 3" O.C. in perimeters, and 3" O.C. in corners.

3.2 INSTALLATION, GENERAL

- A. Install deck panels and accessories according to applicable specifications and commentary in SDI Publication No. 31, manufacturer's written instructions, and requirements in this Section.

- B. Place deck panels on supporting frame and adjust to final position with ends accurately aligned and bearing on supporting frame before being permanently fastened. Do not stretch or contract side-lap interlocks.
- C. Place deck panels flat and square and fasten to supporting frame without warp or deflection.
- D. Cut and neatly fit deck panels and accessories around openings and other work projecting through or adjacent to deck.
- E. Provide additional reinforcement and closure pieces at openings as required for strength, continuity of deck, and support of other work.
- F. Mechanical fasteners shall be used to fasten deck. Locate mechanical fasteners and install according to deck manufacturer's written instructions.

3.3 ROOF-DECK REPLACEMENT

- A. Side-Lap and Perimeter Edge Fastening: Fasten side laps and perimeter edges of panels between supports, at intervals not exceeding 18 inches.
 - 1. Mechanically fasten with self-drilling, No. 10 diameter or larger, carbon-steel screws.
- B. End Bearing: Install deck ends over supporting frame with a minimum end bearing of 1-1/2 inches, with end joints as follows:
 - 1. End Joints: Lapped 2 inches minimum.
- C. Roof deck replacement locations shall extend over a minimum of 2 bar joists in area of replacement.
- D. Roof Deck attachment to substrate: Fasten roof deck to substrate with fasteners minimum of 6" O.C. in the field and 6" O.C. in the perimeter.

3.4 FIELD QUALITY CONTROL

- A. Remove and replace work that does not comply with specified requirements.

3.5 ROOF DECK REPAIR

- A. Galvanizing Repairs: Prepare and repair damaged galvanized coatings on both surfaces of deck with galvanized repair paint according to ASTM A 780 and manufacturer's written instructions.
- A. Repair Painting: Wire brush and clean rust spots, apply zinc rich primer to prepared areas.
 - 1. Prepare the roof deck in accordance with the zinc rich primer manufacturer's printed instructions. A minimum of a mechanical sanding/brushing is required.

END OF SECTION 053100

SECTION 061053 - MISCELLANEOUS ROUGH CARPENTRY

PART 1 - GENERAL

1.1 RELATED REQUIREMENTS

- A. Drawings and general provisions of the contract, including the General and Supplemental Conditions, as well as other Division 01 Specification Sections, apply to this section.

1.2 SUMMARY

- A. Section Includes:

1. New wood blocking/nailers and plywood is required at all perimeter locations where shown on the details. Thickness of wood blocking/nailers and plywood shall match existing. A unit price is required to be provided if existing wood blocking/nailers are found to be damaged/deteriorated and cannot be reused.
2. A wood blocking/nailers replacement quantity is provided in Section 012200 "Unit Prices" and is to be used to replace damaged or deteriorated wood blocking/nailers and associated components. This quantity is to be included in the base bid. A unit price is also required to be provided to adjust the contract sum based on the actual amount used.

1.3 DEFINITIONS

- A. Lumber: Minimum 2 inches x 6 inches unless otherwise indicated.
- B. Lumber grading agencies, and the abbreviations used to reference them, include the following:
 1. NLGA: National Lumber Grades Authority.
 2. SPIB: The Southern Pine Inspection Bureau.

1.4 ACTION SUBMITTALS

- A. Product Data: For each type of process and factory-fabricated product. Indicate component materials and dimensions and include construction and application details.
 1. Include data for wood-preservative treatment from chemical treatment manufacturer and certification by treating plant that treated materials comply with requirements. Indicate type of preservative used and net amount of preservative retained.
 2. For products receiving a waterborne treatment, include statement that moisture content of treated materials was reduced to levels specified before shipment to Project site.
 3. Include copies of warranties from chemical treatment manufacturers for each type of treatment.

1.5 INFORMATIONAL SUBMITTALS

A. Evaluation Reports: For the following, from ICC-ES:

1. Preservative-treated wood.
2. Power-driven fasteners.
3. Powder-actuated fasteners.
4. Expansion anchors.

1.6 QUALITY ASSURANCE

- ### A. Testing Agency Qualifications: For testing agency providing classification marking for fire-retardant treated material, an inspection agency acceptable to authorities having jurisdiction that periodically performs inspections to verify that the material bearing the classification marking is representative of the material tested.

1.7 DELIVERY, STORAGE, AND HANDLING

- ### A. Stack lumber flat with spacers beneath and between each bundle to provide air circulation. Protect lumber from weather by covering with waterproof sheeting, securely anchored. Provide for air circulation around stacks and under coverings.

PART 2 - PRODUCTS

2.1 WOOD PRODUCTS, GENERAL

- #### A. Lumber: DOC PS 20 and applicable rules of grading agencies indicated. If no grading agency is indicated, provide lumber that complies with the applicable rules of any rules-writing agency certified by the ALSC Board of Review. Provide lumber graded by an agency certified by the ALSC Board of Review to inspect and grade lumber under the rules indicated.
1. Factory mark each piece of lumber with grade stamp of grading agency.
 2. For exposed lumber indicated to receive a stained or natural finish, mark grade stamp on end or back of each piece.
- #### B. Maximum Moisture Content of Lumber: 15 percent for 2-inch nominal thickness or less, 19 percent for more than 2-inch nominal thickness unless otherwise indicated.

2.2 WOOD-PRESERVATIVE-TREATED MATERIALS

A. Preservative Treatment by Pressure Process: AWPAC U1; Use Category UC3b

1. Preservative Chemicals: Acceptable to authorities having jurisdiction and containing no arsenic or chromium.

2. For exposed items indicated to receive a stained or natural finish, use chemical formulations that do not require incising, contain colorants, bleed through, or otherwise adversely affect finishes.
- B. Kiln-dry lumber after treatment to a maximum moisture content of 19 percent. Do not use material that is warped or does not comply with requirements for untreated material.
- C. Mark lumber with treatment quality mark of an inspection agency approved by the ALSC Board of Review.
 1. For exposed lumber indicated to receive a stained or natural finish, mark end or back of each piece.
- D. Application: Treat items indicated on Drawings, and the following:
 1. Wood cants, nailers, curbs, equipment support bases, blocking, and similar members in connection with roofing, flashing, vapor barriers, and waterproofing.
 2. Blocking, furring, and similar concealed members in contact with masonry or concrete.

2.3 DIMENSIONAL LUMBER

- A. Framing/Wood Blocking/Nailers:
 1. Construction or No. 2 Southern pine (SPIB).
 2. Pressure Treated, kiln dried, intended for ground contact.
 3. Maximum Moisture Content of Lumber: 19 percent or less.
 4. Minimum 2" x 6" unless approved otherwise.

2.4 PLYWOOD

- A. APA classification C-D, Exposure 1.
 1. Thickness shall be 1/2 inch or match existing.
 2. Maximum Moisture Content of Plywood: 15 percent or less

2.5 FASTENERS

- A. General: Provide fasteners of size and type indicated that comply with requirements specified in this article for material and manufacture. Fasteners shall be compatible with the wood treatment used.
 1. Where carpentry is exposed to weather, in ground contact, pressure-preservative treated, or in area of high relative humidity, provide fasteners of Type 304 stainless steel.
 2. For wood blocking attachment to steel, use a minimum of #12 Hot Dipped Galvanized self-drilling fastener to penetrate steel structure below the nailer a minimum of 1" depth. Wood blocking shall be attached at the fastener rate indicated in Part 3 of this specification section. One fastener shall be at a maximum of 4" from board end.

3. Provide a self-adhering underlayment between treated wood blocking and any sheet metal products including the counterflashing, etc.
4. If other substrate/edge conditions exist, the Contractor shall provide attachment to resist 250 pounds per square linear foot in all directions and increased by 100% at corners.

2.6 UNDERLAYMENT

- A. Self-Adhering Underlayment: Composite, self-adhesive, flashing product consisting of a pliable, butyl rubber or rubberized-asphalt compound, bonded to a high-density polyethylene film, aluminum foil, or spunbonded polyolefin to produce an overall thickness of not less than 40 mils.

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

- A. Set carpentry to required levels and lines, with members plumb, true to line, cut, and fitted. Fit carpentry to other construction; scribe and cope as needed for accurate fit.
- B. Where wood-preservative-treated lumber is installed adjacent to metal decking, install continuous self-adhering underlayment separator between wood and metal decking.
- C. Framing Standard: Comply with AF&PA's WCD 1, "Details for Conventional Wood Frame Construction," unless otherwise indicated.
- D. Do not splice structural members between supports unless otherwise indicated.
- E. Sort and select lumber so that natural characteristics will not interfere with installation or with fastening other materials to lumber. Do not use materials with defects that interfere with function of member or pieces that are too small to use with minimum number of joints or optimum joint arrangement.
- F. Comply with AWP A M4 for applying field treatment to cut surfaces of preservative-treated lumber.
 1. Use inorganic boron for items that are continuously protected from liquid water.
 2. Use copper naphthenate for items not continuously protected from liquid water.
- G. For plywood attachment to existing wood trusses, fasteners shall be attached 4" O.C. around the perimeter of sheathing and 6" O.C. in the field. Fasteners shall penetrate into the existing supports a minimum of 1". The spacing of the fasteners shall be at all truss/rafter/support locations.
- H. Securely attach carpentry work to substrate by anchoring and fastening as indicated, complying FM Loss Protection Data Sheet 1-49 and with the following:
 1. Wood to Concrete/Steel Deck:

- a. Two staggered rows of fasteners spaced 24 inches on center in Zones 2 and 3.
- 2. Wood to Wood:
 - a. Two staggered rows of fasteners spaced 24 inches on center in Zone 2 and 12 inches on center for Zone 3.

END OF SECTION 061053

SECTION 070150.18 - PREPARATION FOR REPAIR WORK

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Base Bid:
 - 1. Scope of work includes modification of the existing canopy, repairs to the brick veneer at canopy to wall termination and roof repairs.
- B. Related Requirements:
 - 1. Section 011000 "Summary".
 - 2. Section 015000 "Temporary Facilities and Controls".

1.3 ACTION SUBMITTALS

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

1.4 INFORMATIONAL SUBMITTALS

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

1.5 QUALITY ASSURANCE

- A. Regulatory Requirements: Comply with governing EPA notification regulations before beginning construction. Comply with demolition, hauling and disposal regulations of authorities having jurisdiction.
- B. Pre-Construction Conference: Conduct conference at Project site.
 - 1. Meet with Owner, Consultant, waterproofing system manufacturer's representative, waterproofing installer, including project manager, superintendent, and foreman, and installers whose work interfaces with or affects other areas of work.

2. Review methods and procedures related to system components removal and replacement, including, but not limited to, the following:
 - a. Work preparation.
 - b. Temporary protection requirements for existing waterproofing system components that are to remain.
 - c. Construction schedule and availability of materials, Installer's personnel, equipment, and facilities needed to avoid delays.
 - d. Existing waterproofing conditions requiring notification of Consultant.
 - e. Existing waterproofing removal procedures and Owner notifications.
 - f. Condition and acceptance of existing waterproofing substrate for reuse.
 - g. Structural loading limitations of waterproofing substrates during work.
 - h. Special details, drainage, and condition of other construction that affects work.
 - i. Shutdown of fire-suppression, -protection, and -alarm and -detection systems.
 - j. Governing regulations and requirements for insurance and certificates if applicable.
 - k. Existing conditions that may require notification of Consultant before proceeding.

1.6 FIELD CONDITIONS

- A. Existing Conditions: Contractor is required to verify all existing dimensions, penetrations, terminations and other conditions that can be acquired during a visit to the site.
- B. Owner will occupy portions of building immediately below work area. Conduct work so Owner's operations are not disrupted. Provide Owner with not less than 72 hours notice of activities that may affect Owner's operations.
 1. Coordinate work activities daily with Owner so Owner can place protective dust and water-leakage covers over sensitive equipment and furnishings, shut down HVAC and fire-alarm or -detection equipment if needed, and evacuate occupants from below work area.
 2. Before working over structurally impaired areas of deck, notify Owner to evacuate occupants from below affected area. Verify that occupants below work area have been evacuated before proceeding with work over impaired deck area.
- C. Protect building, adjacent buildings, walkways, site improvements, exterior plantings, and landscaping from damage or soiling from work operations.
- D. Maintain access to existing walkways, corridors, and other adjacent occupied or used facilities.
- E. Limit construction loads on substrates and uniformly distributed loads as not to overload structure.
- F. Weather Limitations: Proceed with work preparation only when existing and forecasted weather conditions permit Work to proceed without water entering the building.
 1. Remove only as much work in one day as can be made watertight in the same day.

- G. If any suspected hazardous materials are encountered, do not disturb; immediately notify Consultant and Owner.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 PREPARATION

- A. Shut off utilities and service piping in areas of work before beginning any Work.
- B. Protect existing cladding and roofing systems that are not in contract to be replaced/repaired.
 - 1. Limit traffic and material storage to areas of existing conditions that have been protected.
 - 2. Maintain temporary protection and leave in place until replacement has been completed. Remove temporary protection on completion of work.
- C. Coordinate with Owner to shut down air-intake equipment in the vicinity of the Work. Cover air-intake louvers before proceeding with work that could affect indoor air quality or activate smoke detectors in the ductwork.
- D. During removal operations, have sufficient and suitable materials on-site to facilitate rapid installation of temporary protection in the event of unexpected rain.

3.2 REPAIR/REMOVAL

- A. General: Notify Owner of the location and extent of work proposed for each day at least 24 hours prior to work. A weekly schedule is required to be provided and is to be updated as needed to provide an accurate schedule.

3.3 SUBSTRATE PREPARATION

- A. Inspect substrates after removal of metal panels and roofing system.
- B. Verify that substrate is visibly dry, free of any moisture, dirt and debris or any other surface contaminant.
- C. If substrate is unsuitable for receiving new cladding and roofing system or if structural integrity of the substrate is suspect, immediately notify Consultant. Do not proceed with installation until directed by Consultant.

3.4 DISPOSAL

- A. Collect demolished materials and place in containers. Promptly dispose of demolished materials. Do not allow demolished materials to accumulate on-site.

- B. Provide a trash chute from work areas to ground (area approved for dumpster).
 - 1. Storage or sale of demolished items or materials on-site is not permitted.
- C. Transport and legally dispose of demolished materials off Owner's property.

END OF SECTION 070150.18

SECTION 070191 - JOINT SEALANT REHABILITATION AND REPLACEMENT

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section Includes: Rehabilitation and replacement of exterior elastomeric sealants to include the following.
 - 1. Masonry to Masonry Joints.
 - 2. Sheet Metal to Masonry Joints
 - 3. Sheet Metal to Sheet Metal Joints
- B. Related Requirements:
 - 1. Division 01 General Requirements: Requirements of Sections in Division 01 apply to the Work of all Sections in the Specifications.

1.3 REFERENCE STANDARDS

- A. ASTM International (ASTM):
 - 1. ASTM C 661 - Standard Test Method for Indentation Hardness of Elastomeric Type Sealants by Means of a Durometer.
 - 2. ASTM C 719 - Standard Test Method for Adhesion and Cohesion of Elastomeric Joint Sealants under Cyclic Movement (Hockman Cycle).
 - 3. ASTM C 920 - Specification for Elastomeric Joint Sealants.
 - 4. ASTM C 1135 - Standard Test Method for Determining Tensile Adhesion Properties of Structural Sealants.
 - 5. ASTM C 1184 - Standard Specification for Structural Silicone Sealants.
 - 6. ASTM C 1193 - Standard Guide for Use of Joint Sealants.
 - 7. ASTM C 1248 - Test Method for Staining of Porous Substrate by Joint Sealants.
 - 8. ASTM C 1330 - Cylindrical Sealant Backing for Use with Cold Liquid Applied Sealants.
 - 9. ASTM D 2240 - Standard Test Method for Rubber Property - Durometer Hardness.
 - 10. ASTM D 412 - Standard Test Methods for Vulcanized Rubber and Thermoplastic Elastomers - Tension.
- B. Sealant, Waterproofing, and Restoration Institute (SWRI):
 - 1. SWRI Validation Program.

C. U. S. Environmental Protection Agency (EPA):

1. 40 CFR 59, Subpart D: National Volatile Organic Compound Emission Standards for Architectural Coatings.

D. US Green Building Council (USGBC):

1. Leadership in Energy and Environmental Design (LEED) Green Building Rating System.

1.4 ADMINISTRATIVE REQUIREMENTS

- A. Coordination: Coordinate installation of joint sealants with cleaning of joint sealant substrates and other operations that may impact installation or finished joint sealant work.

- B. Preinstallation Conference: Conduct conference at Project Site.

1.5 ACTION SUBMITTALS

- A. Product Data: For each type of joint sealant product specified, including:

1. Preparation instructions and recommendations.
2. Standard drawings illustrating manufacturer's recommended sealant joint profiles and dimensions applicable to Project.

- B. Joint Sealant Schedule: Indicate joint sealant location, joint sealant type, manufacturer and product name, and color, for each application. Utilize joint sealant designations included in this Section.

- C. Samples for Color Selection: For each joint sealant type.

- D. Samples for Verification: For each exterior joint sealant product, for each color selected.

1.6 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For qualified applicator.

- B. Sealant, Waterproofing, and Restoration Institute (SWRI) Validation Certificate: For each sealant specified to be validated by SWRI's Sealant Validation Program.

- C. Preconstruction compatibility and adhesion test reports.

- D. Preconstruction field-adhesion test reports.

- E. Field quality control adhesion test reports.

- F. Warranty: Sample of unexecuted manufacturer and installer special warranties.

1.7 QUALITY ASSURANCE

- A. Installer Qualifications: Experienced Installer equipped and trained for application of joint sealants required for this Project with record of successful completion of projects of similar scope.
- B. Single Source Responsibility: Provide exterior joint sealants by a single manufacturer responsible for testing of Project substrates to verify compatibility and adhesion of joint sealants.
- C. Preconstruction Compatibility, Staining, and Adhesion Testing: Submit four samples of material that will be in contact with or affect joint sealants. Test sealants with substrate materials using manufacturer's standard test method to determine requirements for joint preparation, including priming. Test sealants with related materials to verify compatibility.
- D. Preconstruction Field-Adhesion Testing: Prior to installing joint sealants, field test adhesion to joint substrates using ASTM C 1193 Method A or method recommended by manufacturer. Verify adhesion is adequate. Modify joint preparation recommendations for failed joints and re-test. Submit written report to Architect.
- E. Mockups: Provide joint sealant application within mockups required in other sections identical to specified joint sealants and installation methods.

1.8 WARRANTY

- A. Special Installer's Warranty: Original statement on Installer's letterhead in which Installer agrees to repair or replace joint sealants that demonstrate deterioration or failure within warranty period specified.
 - 1. Warranty Period: Two years from date of Substantial Completion.
- B. Special Manufacturer's Warranty: Manufacturer's standard form in which joint sealant manufacturer agrees to furnish joint sealants to repair or replace those that demonstrate deterioration or failure under normal use within warranty period specified.
 - 1. Warranty Period for Silicone Sealants: 20 years date of Substantial Completion.
- C. Warranty Conditions: Special warranties exclude deterioration or failure of joint sealants in normal use due to structural movement resulting in stresses on joint sealants exceeding sealant manufacturer's written specifications, joint substrate deterioration, mechanical damage, or normal accumulation of dirt or other contaminants.

PART 2 - PART 2 - PRODUCTS

2.1 MATERIALS, GENERAL

- A. Compatibility: Provide joint sealants and accessory materials that are compatible with one another, with joint substrates, and with materials in close proximity under use conditions, as demonstrated by sealant manufacturer by testing and related experience.
- B. Joint Sealant shall be a neutral curing silicone sealant complying with ASTM C 920, Type S, Grade NS, Class 50, Use M for Masonry and Use G for glass.
- C. Stain Test Characteristics: Where sealants are required to be nonstaining, provide sealants tested per ASTM C 1248 as non-staining on porous joint substrates indicated for Project.

2.2 ACCESSORIES

- A. Joint Substrate Primers: Substrate primer recommended by sealant manufacturer for application.
- B. Sealant Backing: ASTM C 1330, Type B non-absorbent, bi-cellular material with surface skin, or Type O open-cell polyurethane, as recommended by sealant manufacturer for application.
- C. Bond Breaker Tape: Polymer tape compatible with joint sealant materials and recommended by sealant manufacturer.

PART 3 - PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examination of Existing Joint Sealants: Examine existing joint sealants indicated to be replaced or rehabilitated. Examine joints for compliance with requirements for joint configuration, installation tolerances, condition of joint substrate, and other conditions affecting joint-sealant performance.
- B. Examination of Existing Joint Sealants: Examine existing joint sealants and indicate extent of joint sealant replacement and rehabilitation on shop drawings. Examine joints for compliance with requirements for joint configuration, installation tolerances, condition of joint substrate, and other conditions affecting joint-sealant performance.
- C. Perform adhesion tests in accordance with manufacturer's instructions and with ASTM C 1193, Method A. Verify substrate preparation and priming result in adhesion of sealants meeting sealant manufacturer's published performance data.
 - 1. If adhesion does not comply with published data, modify preparation and priming in accordance with sealant manufacturer's written instructions and retest.

- D. Submit report indicating conditions that cannot be corrected to comply with joint sealant manufacturer's recommendations as part of the specified joint replacement or rehabilitation. Proceed with work once non-complying conditions are corrected.

3.2 PREPARATION

- A. Removal of Existing Joint Sealant Materials: Cut out and remove joint materials and associated backing materials as indicated on drawings.
- B. Surface Cleaning of Joint Substrates: Clean out joints immediately before installing joint sealants to comply with joint-sealant manufacturer's written instructions and the following requirements:
 - 1. Remove all foreign material from joint substrates that could interfere with adhesion of joint sealant, including dust, paints except for permanent, protective coatings tested and approved for sealant adhesion and compatibility by sealant manufacturer, old joint sealants, oil, grease, waterproofing, water repellents, water, surface dirt, and frost.
 - 2. Clean porous joint substrate surfaces by brushing, grinding, mechanical abrading, or a combination of these methods in addition to solvent cleaning to produce a clean, sound substrate capable of developing optimum bond with joint sealants. Remove loose particles remaining after cleaning operations above by vacuuming or blowing out joints with oil-free compressed air. Remove laitance and form-release agents from concrete.
 - 3. Clean porous and nonporous joint substrate surfaces with chemical cleaners or other means that do not stain, harm substrates, or leave residues capable of interfering with adhesion of joint sealants.

3.3 APPLICATION

- A. Masking: Mask adjacent surfaces to prevent staining or damage by contact with sealant or primer.
- B. Joint Priming: Prime joint substrates when recommended by sealant manufacturer or when indicated by preconstruction testing or experience. Apply recommended primer using sealant manufacturer's recommended application techniques.
- C. Joint Backing: Select joint backing materials recommended by sealant manufacturer to be compatible with sealant material. Install backing material at depth required to produce profile of joint sealant allowing optimal sealant movement.
 - 1. Install bond breaker tape over substrates when sealant backings are not used.
- D. Sealant Application: Install sealants using methods recommended by sealant manufacturer. Depth of sealant shall be 1/2 inch minimum unless otherwise recommended. Apply in continuous operation from bottom to top of joint vertically and horizontally in a single direction. Apply using adequate pressure to fill and seal joint width.
 - 1. Tool sealants immediately with appropriately shaped tool to force sealants against joint backing and joint substrates, eliminating voids and ensuring full contact.
 - 2. Using tooling agents approved by sealant manufacturer for application.

3.4 CLEANING

- A. Cleaning: Remove excess sealant using materials and methods approved by sealant manufacturer that will not damage joint substrate materials.
 - 1. Remove masking tape immediately after tooling joint without disturbing seal.
 - 2. Remove excess sealant from nonporous surfaces while still uncured.

3.5 FIELD QUALITY CONTROL

- A. Owner may retain testing agency to perform the following tests:
 - 1. Verification that substrate preparation meets requirements.
 - 2. Testing and certification that joint sealant materials comply with requirements.
 - 3. Testing of application for compliance with adhesion requirements.
- B. Field-Adhesion Testing: Perform adhesion tests in accordance with manufacturer's instructions and with ASTM C 1193, Method A.
 - 1. Perform a minimum of 5 tests for the first 500 feet of joint length for each kind of sealant and joint substrate, and one test for each 500 feet of joint length thereafter, minimum.
 - 2. For sealant applied between dissimilar materials, test both sides of joint.
- C. Remove sealants failing adhesion test, clean substrates, reapply sealants, and re-test. Test adjacent sealants to failed sealants.
- D. Submit report of field adhesion testing indicating tests, locations, dates, results, and remedial actions taken.

END OF SECTION 070191

SECTION 075216 - SBS MODIFIED BITUMINOUS MEMBRANE ROOFING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section Includes:

- 1. Base Bid

- a. Scope of work includes roof repairs of low slope Roof Area A. Replace all base flashing. Provide two ply modified bitumen base flashing. Associated sheet metal components and accessories are included.

- 2. Alternate No. 1

- a. Scope of work includes roof replacement of low slope Roof Area A down to the existing roof deck at Bldg. R Canopy Roof for approximately 4 squares. Roof replacement includes roof deck repairs, insulation system (including taper), and a two ply modified bitumen roof system with modified bitumen granular surfaced cap sheet. Associated sheet metal components and accessories are included.

1.3 DEFINITIONS

- A. Roofing Terminology: Definitions in ASTM D 1079 and glossary of NRCA's "The NRCA Roofing and Waterproofing Manual" apply to work of this Section.

1.4 PREINSTALLATION MEETINGS

- A. Pre-installation Roofing Conference: Conduct conference at Project Site. Mandatory attendance for roofing contractor, material manufacturer's technical representative, all subcontractors, project manager, and project foreman. Manufacturer must have a member at the pre-installation meeting who is trained as a technical advisor (not a sales person).

1.5 ACTION SUBMITTALS

- A. Product Data: For each type of product.

- B. Contractor shall submit letter from manufacturer stating approval to install specified system and receive the specified 20-year warranty.
- C. Shop Drawings: For roofing system. Include plans, sections, details, and attachments to other work, including:
 - 1. Base flashings and membrane terminations.
 - 2. Tapered insulation layouts, including slopes and minimum R-values.
 - 3. Insulation adhesive patterns for corner, perimeter, and field-of-roof locations.
- D. Samples for Verification: For the following products:
 - 1. Cap sheet, of color required.
 - 2. Flashing sheet, of color required.
 - 3. Base sheet, of color required.
 - 4. Walkway pads or rolls, of color required.

1.6 INFORMATIONAL SUBMITTALS

- A. Research/Evaluation Reports: For components of membrane roofing system, from ICC-ES.
- B. Sample Warranties: For manufacturer's special warranties.
- C. Contractor's Three -year workmanship warranty.
- D. Letter from the manufacturer along with test data stating that the roof system has been tested to meet or exceed the ASD pressures listed with a Factor of Safety of 2.

1.7 CLOSEOUT SUBMITTALS

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

1.8 QUALITY ASSURANCE

- A. Contractor shall be approved by the roofing system manufacturer to install the manufacturer's product and that is eligible to receive the specified manufacturer's warranty.
- B. Manufacturer's technical representative shall be present at jobsite during initial startup and a minimum of once every two weeks during construction. A report shall be generated discussing the findings and any relevant issues. The report shall be submitted to the consultant within 3 days of the observation.
 - 1. A technical representative shall be on site during one of the first two days of roof installation. All costs for any additional inspections by the manufacturer are the responsibility of the contractor.
- C. A copy of the latest manufacturer's product data and installation guide shall be kept on the roof at all times during installation.

1.9 MATERIAL STORAGE

- A. All materials shall be properly stored in accordance with industry standards and the manufacturer's guidelines.
 - 1. Use good tarps, free of holes and tears. Secure properly.
 - 2. Store roll goods on end on pallets. Salvage edge shall be up.
 - 3. Cover insulation with tarps. Manufacturer's plastic wrapping is not intended for protection while materials are stored on site.
 - 4. Store all materials in a manner to prevent condensation.
 - 5. Do not overload the roof. Limit the amount of materials stored on the roof to the next day's operation at a maximum.

1.10 WARRANTY

- A. Special Warranty: Manufacturer agrees to repair or replace components of roofing system that fail in materials or workmanship within specified warranty period.
 - 1. Warranty: 20 years Manufacturer's Labor & Material No Dollar Limit Warranty dated the day of Substantial Completion or after.
 - a. A 73 mph wind speed rider shall be included.
 - b. A rider shall be provided to include all insulation and materials whether they are or not manufactured by roof manufacturer.
 - c. The Manufacturer's Warranty shall be valid without being dated and/or signed by the Owner.
 - 2. Contractor's warranty period: Three years from the date of Substantial Completion.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following manufacturers:
 - 1. Torch Applied Base Sheets
 - a. Soprema Elastophene Flam
 - b. Johns Manville Dynaweld Base
 - c. Siplast Paradiene 20 TG
 - 2. Torch Applied Cap Sheet
 - a. Soprema Elastophene Flam LS FR GR Cap Sheet.
 - b. Johns Manville Dynaweld Cap FR Cap Sheet.

- c. Siplast Pardiene 30 FR TG Cap Sheet.

- B. Source Limitations: Obtain components including: roof insulation, cover board, fasteners, base sheet, cap sheet, adhesives, flashing plies, temporary waterproofing membrane, and sealants from the specified manufacturer in order to obtain a one source warranty for the entire roof system.

2.2 PERFORMANCE REQUIREMENTS

- A. Material Compatibility: Roofing materials shall be compatible with one another and adjacent materials under conditions of service and application required, as demonstrated by roofing manufacturer based on testing and field experience.
- B. FM Global Listing: Roofing, base flashings, and component materials shall comply with requirements in FM Global 4450 or FM Global 4470 as part of a roofing system, and shall be listed in FM Global's "RoofNav" for Class 1 or noncombustible construction, as applicable. Identify materials with FM Global markings.
- C. Exterior Fire-Test Exposure: ASTM E 108 or UL 790, Class "A" for application and roof slopes indicated; testing by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.
- D. Fire-Resistance Ratings: Comply with fire-resistance-rated assembly designs indicated. Identify products with appropriate markings of applicable testing agency.
- E. Wind Resistance Design: Installed roof assembly shall meet or exceed the following wind uplift pressures. The tested assembly shall include a Factor of Safety of 2 of the ASD pressures listed below.

1. Roof Area A:

- a. Interior Field (1'): - 14.8 psf
- b. Field (1): - 28 psf
- c. Perimeter (2): - 37.9 psf
- d. Corner (3): - 52.8 psf

2.3 ROOFING SHEET MATERIALS

- A. Roofing Membrane Base Sheet: ASTM D 6163, Grade S, Type I, SBS-modified asphalt sheet (reinforced with glass fibers) smooth surfaced; minimum 118 mils, suitable for application method specified.
- B. Granule-Surfaced Roofing Cap Sheet: ASTM D 6162 or ASTM D 6164, Grade G, Type I, SBS-modified asphalt sheet (reinforced with glass fibers/polyester and reinforced with polyester); granule surfaced; minimum 150 mils, suitable for application method specified.

2.4 BASE FLASHING SHEET MATERIALS

- A. Same materials as installed in roof system unless Roof Manufacturer's requirements require differing sheets to be provided for the base flashing (i.e. Polyester base flashing cap sheet ply).

2.5 AUXILIARY ROOFING MATERIALS

- A. General: Auxiliary materials recommended by roofing system manufacturer for intended use and compatible with roofing.
 - 1. Liquid-type auxiliary materials shall comply with VOC limits of authorities having jurisdiction.
- B. Liquid Applied Flashing: Multi-component PMMA flashing system with reinforcing fleece embedded.
- C. Asphalt Primer: ASTM D 41/D 41M.
- D. Cold-Applied Adhesive: Roofing system manufacturer's standard asphalt-based, one- or two-part, asbestos-free, cold-applied adhesive specially formulated for compatibility and use with roofing membrane and base flashings.
- E. Low-Rise Foam Adhesive: Two part foam adhesive recommended by the Roof System Manufacturer as part of the tested roof assembly.
- F. Asphalt Roofing Cement: ASTM D 4586, asbestos free, of consistency required by roofing system manufacturer for application.
- G. Fasteners: Factory-coated steel fasteners and metal or plastic plates complying with corrosion-resistance provisions in FM Global 4470, designed for fastening roofing components to substrate; tested by manufacturer for required pullout strength, and acceptable to roofing system manufacturer.
- H. Roofing Granules: Ceramic-coated roofing granules, No. 11 screen size with 100 percent passing No. 8 sieve and 98 percent of mass retained on No. 40 sieve, color to match roofing.

2.6 ROOF SYSTEM DESCRIPTION

- A. Flat Metal Roof Deck Sections (Roof Area A)
 - 1. Base Layer – One layer of 1.0 inch thick polyisocyanurate roof insulation mechanically fastened to roof deck (to hold in place to prevent shifting).
 - 2. Next Layer(s) – Tapered (1/4 inch per 12 inches) polyisocyanurate insulation mechanically fastened to roof deck to withstand wind uplift resistance.
 - 3. Cover Board – One layer of 1/2 inch thick factory primed gypsum coverboard adhered in low rise foam to withstand wind uplift resistance.
 - 4. Two ply Styrene-Butadiene-Styrene (SBS)-modified bituminous membrane roofing.

- a. Base sheet adhered in torch applied method.
 - b. Cap Sheet adhered in torch applied method.
 - B. Polyisocyanurate Board Insulation: Roof Insulation: Shall be rigid polyisocyanurate roof insulation board with factory applied glass fiber reinforced cellulosic felt facers on the top and bottom. Boards to comply with ASTM C1289 Type II, Class 1, Grade 2 and meet the following requirements:
 1. Curing time shall be 24 hours minimum, plus an additional 24 hours minimum per inch thickness, at a minimum of 60 degrees F before shipment from the manufacturer.
 2. Dimensional stability shall be 2 percent maximum linear change when conditioned at 158 degrees F and 97 percent relative humidity for seven days.
 3. Maximum permissible insulation board size for mechanical attachment is 4 feet x 8 feet and 4 feet x 4 feet for low-rise foam adhesive.
 4. Thickness shall be as shown in the Contract Drawings.
 - C. Tapered Insulation: Provide factory-tapered polyisocyanurate insulation boards. Boards shall comply with ASTM C1289 Type II, Class 1, Grade 2 and meet the following requirements
 1. Tapered Insulation for primary slope shall be fabricated to slope of minimum 1/4 inch per 12 inches.
 2. Tapered insulation for Crickets, saddles, and back slope at the crickets shall be fabricated to two (2) times the slope of the primary taper or as necessary to provide a minimum finished roof slope of 1/4 inch per 12 inches.
 3. Tapered insulation for Drain Sumps shall be fabricated to a minimum 1/2 inch per 12 inches and maximum 1 inch per 12 inches. See plans and details.
 4. Finish roof slope shall be minimum 1/4 inch per 12 inches.
 - D. Gypsum Coverboard: ASTM C 1177/C 1177M, glass-mat, water-resistant gypsum substrate, 1/2 inch, factory primed.
 - E. Provide preformed saddles, crickets, tapered edge strips, and other insulation shapes where indicated for sloping to drain. Fabricate to slopes indicated.
- 2.8 INSULATION ACCESSORIES
- A. Insulation Cant Strips: Non-combustible material; ASTM C 726, Type 1, Class 1.
 - B. Tapered Edge Strips: ASTM C 728, perlite insulation board

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

- A. Comply with roofing system manufacturer's written instructions.
- B. If there is a discrepancy between the specifications and the manufacturer's written instructions, the more stringent guideline shall be followed.

- C. Post a fire watch on site for a minimum of two (2) hours subsequent to the completion of any open flame activities. Sufficient number of fire extinguishers to handle any contingency which might develop are to be on the roof at all times. The roofing applicators shall be trained in the proper use of fire extinguishers. Extinguish torches when not in use.

3.2 ROOFING INSTALLATION

- A. Install roofing system according to roofing system manufacturer's written instructions and applicable recommendations in ARMA/NRCA's "Quality Control Guidelines for the Application of Polymer Modified Bitumen Roofing" and as follows:
 - 1. Deck Type: Metal Roof Deck

3.3 ROOF INSULATION INSTALLATION

- A. Install roof insulation in accordance with these specifications, manufacturer's guidelines and NRCA details.
- B. Metal Roof Deck
 - 1. Polyisocyanurate installation:
 - a. Loose lay the base layer of insulation over the metal roof deck. Provide mechanical fasteners to prevent from shifting if joints between insulation joints do not remain tight.
 - b. Mechanically fasten second/tapered layer polyisocyanurate insulation system through the base layer of insulation to the metal roof deck to withstand minimum wind uplift resistance.
 - c. Stagger all joints a minimum of 6 inches in both directions.
 - d. Insulation shall neatly cut in straight lines and butted tightly together without gaps. Any gaps or openings greater than or equal to 1/4 inch shall be filled with similar insulation or replaced with new boards. Cut boards to fit tight to walls, curbs, and penetrations.
 - e. Tapered crickets required at the upslope side of all curbs 24 inches or greater in width.
 - f. Provide tapered edge strips at the leading edge of all tapered insulation boards to transition from 1/2 inch height to zero.
 - 2. Gypsum cover board installation:
 - a. Install the 1/2 inch primed gypsum cover board over the polyisocyanurate. Low rise foam adhesive pattern on insulation board shall resist the required wind uplift requirements.
 - b. Stagger all joints between the layers of insulation a minimum of 6 inches.
 - c. Cut gypsum cover board neatly to follow the contour of the crickets. Prevent "bridging" by scoring and ensuring that the board is laying flat and properly attached.

3.4 ROOF MEMBRANE INSTALLATION

- A. After the roof insulation has been properly installed, remove any dust and debris from surface.
- B. Base Sheet Torch Applied Installation:
 - 1. Roll out the base sheet and allow to relax as per manufacturer's instructions.
 - 2. Starting at low points and working upward, torch the base sheet to the cover board. Verify the adhesion of the base sheet to the cover board.
 - 3. Ensure membrane is free of voids, fishmouths, mole runs, etc. Take two test cuts of base sheet on each roof area to verify base sheet is fully adhered. Test cuts shall be approximately 1 inch wide by 4 inches long.
 - 4. Run base sheet up and over the top of cant. Seal to penetrations.
 - 5. Lap side laps a minimum of 3 inches an end laps a minimum of 6 inches. Stagger end laps at least 24 inches. Install base sheet so that the laps do not line up with joints in insulation.
 - 6. Seal all laps and verify solid lap adhesion at the end of each working day. Make repairs as necessary to ensure a watertight assembly.
 - 7. Cover entire area of work with base sheet each day.
 - 8. Install night-time cutoffs where necessary to prevent water from migrating under new roof assembly.
- C. Cap Sheet Torch Applied Installation:
 - 1. Clean base sheet of any dust, moisture, and debris.
 - 2. Roll out the cap sheet and allow to relax as per manufacturer's instructions but not less than 2 hours.
 - 3. Starting at low points and working upward, torch the cap sheet to the base sheet.
 - 4. Roll membrane into adhesive free of voids, fishmouths, mole runs, etc. Ensure solid embedment of membrane.
 - 5. Lap side laps a minimum of 3 inches an end laps a minimum of 6 inches. Stagger end laps at ½ of roll length where available but not less than 30 inches. Install cap sheet so that the laps do not line up with the laps of the base sheet.
 - 6. Stagger laps in drain/valley areas to prevent "backwards" laps.
 - 7. Seal all laps and verify solid lap adhesion at the end of each working day. Make repairs as necessary to ensure a watertight assembly.
 - 8. Install cap sheet as soon as practical over base sheet but no more than 10 days after base sheet installation.
 - 9. Check lap integrity each day and repair any loose areas. Embed granules in bleed out at roof membrane laps.

3.5 FLASHING AND STRIPPING INSTALLATION

- A. Install base ply of base flashing over cant strips and onto base sheet prior to the installation of the cap sheet. Install cap ply of base flashing after the installation of the cap sheet and secure to substrate a minimum of 8 inches on center. Provide 3 course mastic and fabric over the top termination of the base flashing.

1. Cut sheets from end of roll for maximum 36 inches widths. Install free of voids and wrinkles.
 2. Provide base ply and cap ply of base flashing similar to roof membrane installation.
 3. Separate laps between base ply and cap ply. Extend cap ply a minimum of 3 inches beyond base onto roof surface.
- B. Extend base flashing up walls or parapets a minimum of 8 inches above roofing membrane and 6 inches onto field of roofing membrane.
- C. Mechanically fasten top of base flashing securely at terminations and perimeter of roofing a minimum of 8 inches on center using appropriate fasteners for substrate material.
- D. Install roofing cap-sheet stripping where metal flanges and edgings are set on roofing according to roofing system manufacturer's written instructions.
1. Strip-in lead boots, stainless collars, and other metal work with two plies of membrane. Prime all metal flanges with asphalt primer (top and bottom flanges) and embed in a liberal layer of adhesive. Install flashing layers as shown on detail drawings.
- E. Scuppers:
1. The base layer of insulation shall extend to the scupper. Tapered insulation sump (2 feet x 4 feet) and other varying sizes based on each roof area taper plan) shall be provided sloping water to roof drain. The differing sump sizes shall be provided based on taper layout indicated.
 2. Set scupper liner in bed of asphaltic adhesive on completed base sheet. Prime sheet metal flange (top and bottom) with asphalt primer. Cover metal flashing with roofing base sheet and then cap-sheet stripping, and extend a minimum of 4 inches beyond edge of metal flashing onto field of roofing membrane with each subsequent ply. Embed granules in cap sheet, provide liquid flashing at scupper opening, extend minimum 6 inches onto cap sheet and 4 inches onto scupper liner. Follow detail drawings.

3.6 FIELD TESTING

- A. Take minimum 2 test cuts in area of day's work if torch applied method is used. These test cuts shall be minimum 1 inch x 6 inches. The intent of these test cuts are to verify the adhesion of the base sheet and that the torch method is fully adhering membrane.

3.7 CLOSEOUT:

- A. Clean finished roof of all materials, equipment, debris, markings, etc.

ROOFING INSTALLER'S WARRANTY

- A. WHEREAS _____ of _____, herein called the "Roofing Installer," has performed roofing and associated work ("work") on the following project:
1. Owner: OCTC – Orangeburg Calhoun Technical College
 2. Address: 3250 St. Matthews Road, Orangeburg, SC 29118
 3. Building Name/Type: Bldg. R Canopy
 4. Address: 3250 St. Matthews Road, Orangeburg, SC 29118
 5. Area of Work: Roof Replacement
 6. Acceptance Date: _____.
 7. Warranty Period: Three Years
 8. Expiration Date: _____.
- B. AND WHEREAS Roofing Installer has contracted (either directly with Owner or indirectly as a subcontractor) to warrant said work against leaks and faulty or defective materials and workmanship for designated Warranty Period,
- C. NOW THEREFORE Roofing Installer hereby warrants, subject to terms and conditions herein set forth, that during Warranty Period he will, at his own cost and expense, make or cause to be made such repairs to or replacements of said work as are necessary to correct faulty and defective work and as are necessary to maintain said work in a watertight condition.
- D. This Warranty is made subject to the following terms and conditions:
1. Specifically excluded from this Warranty are damages to work and other parts of the building, and to building contents, caused by:
 - a. lightning;
 - b. peak gust wind speed exceeding 73 mph;
 - c. fire;
 - d. failure of roofing system substrate, including cracking, settlement, excessive deflection, deterioration, and decomposition;
 - e. faulty construction of parapet walls, copings, chimneys, skylights, vents, equipment supports, and other edge conditions and penetrations of the work;
 - f. vapor condensation on bottom of roofing; and
 - g. activity on roofing by others, including construction contractors, maintenance personnel, other persons, and animals, whether authorized or unauthorized by Owner.
 2. When work has been damaged by any of foregoing causes, Warranty shall be null and void until such damage has been repaired by Roofing Installer and until cost and expense thereof have been paid by Owner or by another responsible party so designated.
 3. Roofing Installer is responsible for damage to work covered by this Warranty but is not liable for consequential damages to building or building contents resulting from leaks or faults or defects of work.

4. During Warranty Period, if Owner allows alteration of work by anyone other than Roofing Installer, including cutting, patching, and maintenance in connection with penetrations, attachment of other work, and positioning of anything on roof, this Warranty shall become null and void on date of said alterations, but only to the extent said alterations affect work covered by this Warranty. If Owner engages Roofing Installer to perform said alterations, Warranty shall not become null and void unless Roofing Installer, before starting said work, shall have notified Owner in writing, showing reasonable cause for claim, that said alterations would likely damage or deteriorate work, thereby reasonably justifying a limitation or termination of this Warranty.
5. During Warranty Period, if original use of roof is changed and it becomes used for, but was not originally specified for, a promenade, work deck, spray-cooled surface, flooded basin, or other use or service more severe than originally specified, this Warranty shall become null and void on date of said change, but only to the extent said change affects work covered by this Warranty.
6. Owner shall promptly notify Roofing Installer of observed, known, or suspected leaks, defects, or deterioration and shall afford reasonable opportunity for Roofing Installer to inspect work and to examine evidence of such leaks, defects, or deterioration.
7. This Warranty is recognized to be the only warranty of Roofing Installer on said work and shall not operate to restrict or cut off Owner from other remedies and resources lawfully available to Owner in cases of roofing failure. Specifically, this Warranty shall not operate to relieve Roofing Installer of responsibility for performance of original work according to requirements of the Contract Documents, regardless of whether Contract was a contract directly with Owner or a subcontract with Owner's General Contractor.

E. IN WITNESS THEREOF, this instrument has been duly executed this _____ day of _____, _____.

1. Authorized Signature: _____.
2. Name: _____.
3. Title: _____.

END OF SECTION 075216

SECTION 076200 - SHEET METAL FLASHING AND TRIM

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section Includes:

- 1. Provide sheet metal flashings and trim as indicated in the Contract Drawings.

- B. Related Sections:

- 1. Section 061053 "Miscellaneous Rough Carpentry"
 - 2. Section 075216 "SBS Modified Bituminous Membrane Roofing"
 - 3. Section 077200 "Roof Accessories"

1.3 COORDINATION

- A. Coordinate sheet metal flashing and trim layout and seams with sizes and locations of penetrations to be flashed, and joints and seams in adjacent materials.
- B. Coordinate sheet metal flashing and trim installation with adjoining roofing and wall materials, joints, and seams to provide leak-proof, secure, and noncorrosive installation.

1.4 ACTION SUBMITTALS

- A. Product Data: For each type of product.

- 1. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for each manufactured product and accessory.

- B. Shop Drawings: For sheet metal flashing and trim.

- 1. Include identification of material, thickness, weight, and finish for each item and location in Project.

- C. Samples for Initial Selection: For each type of sheet metal and accessory indicated with factory-applied finishes.

- D. Samples for Verification: For each type of exposed finish.

1.5 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For fabricator.
- B. Product Certificates: For each type of coping and roof edge flashing that is SPRI ES-1 tested.
- C. Sample Warranty: For special warranty.

1.6 CLOSEOUT SUBMITTALS

- A. Maintenance Data: For sheet metal flashing and trim, and its accessories, to include in maintenance manuals.

1.7 QUALITY ASSURANCE

- A. Fabricator Qualifications: Employs skilled workers who custom fabricate sheet metal flashing and trim similar to that required for this Project and whose products have a record of successful in-service performance.
 - 1. For copings and roof edge flashings that are SPRI ES-1 tested, shop shall be listed as able to fabricate required details as tested and approved.

1.8 DELIVERY, STORAGE, AND HANDLING

- A. Do not store sheet metal flashing and trim materials in contact with other materials that might cause staining, denting, or other surface damage. Store sheet metal flashing and trim materials away from uncured concrete and masonry.
- B. Protect strippable protective covering on sheet metal flashing and trim from exposure to sunlight and high humidity, except to extent necessary for period of sheet metal flashing and trim installation.

1.9 WARRANTY

- A. Special Warranty on Finishes: Manufacturer agrees to repair finish or replace sheet metal flashing and trim that shows evidence of deterioration of factory-applied finishes within specified warranty period.
 - 1. Exposed Finish: Deterioration includes, but is not limited to, the following:
 - a. Color fading more than 5 Hunter units when tested according to ASTM D 2244.
 - b. Chalking in excess of a No. 8 rating when tested according to ASTM D 4214.
 - c. Cracking, checking, peeling, or failure of paint to adhere to bare metal.
 - 2. Finish Warranty Period: 30 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. General: Sheet metal flashing and trim assemblies shall withstand wind loads, structural movement, thermally induced movement, and exposure to weather without failure due to defective manufacture, fabrication, installation, or other defects in construction. Completed sheet metal flashing and trim shall not rattle, leak, or loosen, and shall remain watertight.
- B. Sheet Metal Standard for Flashing and Trim: Comply with NRCA's "The NRCA Roofing Manual" and SMACNA's "Architectural Sheet Metal Manual" requirements for dimensions and profiles shown unless more stringent requirements are indicated.
- C. SPRI Wind Design Standard: Manufacture and install roof edge flashings tested according to SPRI ES-1 and capable of resisting the design pressures.
- D. Thermal Movements: Allow for thermal movements from ambient and surface temperature changes to prevent buckling, opening of joints, overstressing of components, failure of joint sealants, failure of connections, and other detrimental effects. Base calculations on surface temperatures of materials due to both solar heat gain and nighttime-sky heat loss.

2.2 SHEET METALS

- A. General: Protect mechanical and other finishes on exposed surfaces from damage by applying strippable, temporary protective film before shipping.
- B. Aluminum Sheet: ASTM B 209, alloy as standard with manufacturer for finish required, with temper as required to suit forming operations and performance required; with smooth, flat surface.
 - 1. Exposed Coil-Coated Finish:
 - a. Two-Coat Fluoropolymer: AAMA 620. Fluoropolymer finish containing not less than 70 percent PVDF resin by weight in color coat. Prepare, pretreat, and apply coating to exposed metal surfaces to comply with coating and resin manufacturers' written instructions.
 - 2. Color: As selected by Owner from manufacturer's full range.
 - 3. Concealed Finish: Pretreat with manufacturer's standard white or light-colored acrylic or polyester backer finish, consisting of prime coat and wash coat with minimum total dry film thickness of 0.5 mil.
 - 4. Component Thickness 0.040 inches:
 - a. Counterflashing Receiver
 - b. Counterflashing
 - c. Wind Clips
 - d. Expansion Joint Cover
 - e. Coping
 - f. Scupper Face Plate

- C. Stainless-Steel Sheet: ASTM A 240/A 240M or ASTM A 666, Type 304, dead soft, fully annealed; with smooth, flat surface.

- 1. Component Thickness 24 gauge:
 - a. Scupper Liner/Sleeve

2.3 ALUMINUM COMPOSITE MATERIAL PANELS

- A. Basis of Design: Alucobond Plus, 4mm FR Core
- B. Color: Match Existing
- C. Clips, Transitions and Closures required.

2.4 UNDERLAYMENT MATERIALS

- A. Self-Adhering, High-Temperature Underlayment: Minimum 40 mils thick, consisting of a slip-resistant polyethylene- or polypropylene-film top surface laminated to a layer of butyl- or SBS-modified asphalt adhesive, with release-paper backing; specifically designed to withstand high metal temperatures beneath metal roofing. Provide primer according to written recommendations of underlayment manufacturer.
 - 1. Thermal Stability: ASTM D 1970; stable after testing at 240 deg F or higher.
 - 2. Low-Temperature Flexibility: ASTM D 1970; passes after testing at minus 20 deg F or lower.
- B. Slip Sheet: Rosin-sized building paper, 3 lb/100 sq. ft. minimum.

2.5 MISCELLANEOUS MATERIALS

- A. General: Provide materials and types of fasteners, solder, protective coatings, sealants, and other miscellaneous items as required for complete sheet metal flashing and trim installation and as recommended by manufacturer of primary sheet metal unless otherwise indicated.
- B. Fasteners: Wood screws, annular threaded nails, self-tapping screws, self-locking rivets and bolts, and other suitable fasteners designed to withstand design loads and recommended by manufacturer of primary sheet metal.
 - 1. General: Blind fasteners or self-drilling screws, gasketed, with hex-washer head.
 - a. Exposed Fasteners: Heads matching color of sheet metal using plastic caps or factory-applied coating. Provide metal-backed EPDM or PVC sealing washers under heads of exposed fasteners bearing on weather side of metal.
 - b. Blind Fasteners: Low profile pancake head with length sufficient to penetrate metal substrates minimum 3 threads or wood substrates minimum 1-1/2".
 - 2. Fasteners for Aluminum Sheet: Aluminum or Series 300 stainless steel.
 - 3. Fasteners for Stainless-Steel Sheet: Series 300 stainless steel.

4. Fasteners for Zinc-Coated (Galvanized) Steel Sheet: Series 300 stainless steel or hot-dip galvanized steel according to ASTM A 153/A 153M or ASTM F 2329.
 5. Fasteners for Concrete and Masonry: 1 /4" diameter metal based expansion anchor with stainless steel mandrel of length to penetrate substrate a minimum of 1-1/2".
 6. Washers: Shall be stainless steel with neoprene gasket backing. Shall be 9/16" diameter for use with #12 screws and 5/8" diameter for use with 1/4" diameter concrete and masonry anchors.
 7. Rivets: #44 Stainless steel rivets with stainless steel mandrel. Length of rivet to properly fasten particular sheet metal components. Rivets shall be factory painted to match adjacent sheet metal.
- C. Sealant Tape: Pressure-sensitive, 100 percent solids, polyisobutylene compound sealant tape with release-paper backing. Provide permanently elastic, nonsag, nontoxic, nonstaining tape 1/2 inch wide and 1/8 inch thick.
- D. Elastomeric Sealant: ASTM C 920, elastomeric polyurethane polymer sealant; of type, grade, class, and use classifications required to seal joints in sheet metal flashing and trim and remain watertight.
- E. Silicone Sealant: Shall be a one-component, non-sag, neutral cure, low-modulus, UV resistant, high performance silicone sealant. Shall meet ASTM C 920, Type S, Grade NS, Class 100, Use M, G, A or O. Color to match adjacent materials.
- F. Butyl Sealant: ASTM C 1311, single-component, solvent-release butyl rubber sealant; polyisobutylene plasticized; heavy bodied for hooked-type expansion joints with limited movement.
- G. Solder: 80/20 lead – tin alloy conforming to ASTM B32.
- H. Flux: Muriatic acid killed with zinc or an acceptable brand of commercial soldering flux formulated for stainless steel alloys.

2.6 FABRICATION, GENERAL

- A. General: Custom fabricate sheet metal flashing and trim to comply with details shown and recommendations in cited sheet metal standard that apply to design, dimensions, geometry, metal thickness, and other characteristics of item required. Fabricate sheet metal flashing and trim in shop to greatest extent possible.
1. Obtain field measurements for accurate fit before shop fabrication.
 2. Form sheet metal flashing and trim to fit substrates without excessive oil canning, buckling, and tool marks; true to line, levels, and slopes; and with exposed edges folded back to form hems.
 3. Conceal fasteners and expansion provisions where possible. Do not use exposed fasteners on faces exposed to view.
- B. Expansion Provisions: Form metal for thermal expansion of exposed flashing and trim.
1. Form expansion joints of intermeshing hooked flanges, not less than 1 inch deep, filled with butyl sealant concealed within joints.
 2. Use lapped joints unless otherwise indicated.
 3. Coping shall have one inch high locked standing seams.

- C. Sealant Joints: Where movable, non-expansion-type joints are required, form metal to provide for proper installation of elastomeric sealant according to cited sheet metal standard.
- D. Fabricate cleats and attachment devices from same material as accessory being anchored or from compatible, noncorrosive metal. Cleats shall be 1 gauge/increment thicker than sheet metal used.
- E. Seams: Fabricate nonmoving seams with flat-lock seams. Form seams and seal with elastomeric sealant unless otherwise recommended by sealant manufacturer for intended use. Rivet joints where necessary for strength.

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

- A. General: Anchor sheet metal flashing and trim and other components of the Work securely in place, with provisions for thermal and structural movement. Use fasteners, solder, protective coatings, separators, sealants, and other miscellaneous items as required to complete sheet metal flashing and trim system.
 - 1. Install sheet metal flashing and trim true to line, levels, and slopes. Provide uniform, neat seams with minimum exposure of solder, welds, and sealant.
 - 2. Install sheet metal flashing and trim to fit substrates resulting in watertight performance. Verify shapes and dimensions of surfaces to be covered before fabricating sheet metal.
 - 3. Install exposed sheet metal flashing and trim with limited oil canning, and free of buckling and tool marks.
 - 4. Torch cutting of sheet metal flashing and trim is not permitted.
 - 5. Prime all sheet metal surfaces (top and bottom) to receive bituminous materials. Allow primer to dry thoroughly before application of bituminous materials.
- B. Metal Protection: Where dissimilar metals contact each other, or where metal contacts pressure-treated wood or other corrosive substrates, protect against galvanic action or corrosion by painting contact surfaces with bituminous coating or by other permanent separation as recommended by sheet metal manufacturer or cited sheet metal standard.
- C. Expansion Provisions: Provide for thermal expansion of exposed flashing and trim. Space movement joints at maximum of 10 feet with no joints within 18 inches maximum or 24 inches minimum of corner or intersection.
 - 1. Form expansion joints of intermeshing hooked flanges, not less than 1 inch deep, filled with sealant concealed within joints.
 - 2. Coping: Use 1 inch tall standing seam expansion joints.
- D. Fasteners: Use fastener sizes that penetrate wood blocking or sheathing not less than 1-1/2 inches for nails and not less than 1 inch for wood screws.
- E. Conceal fasteners and expansion provisions where possible in exposed work and locate to minimize possibility of leakage. Cover and seal fasteners and anchors as required for a tight installation.

3.2 UNDERLAYMENT INSTALLATION

- A. Self-Adhering Underlayment: Install self-adhering underlayment, wrinkle free. Prime substrate if recommended by underlayment manufacturer. Comply with temperature restrictions of underlayment manufacturer for installation; use primer for installing underlayment at low temperatures. Apply in shingle fashion to shed water, with end laps of not less than 6 inches staggered between courses. Overlap side edges not less than 3-1/2 inches. Roll laps and edges with roller. Cover underlayment within 14 days.

3.3 ROOF-DRAINAGE SYSTEM INSTALLATION

- A. General: Install sheet metal roof-drainage items to produce complete roof-drainage system according to cited sheet metal standard unless otherwise indicated. Coordinate installation of roof perimeter flashing with installation of overflow roof-drainage system.

3.4 ROOF FLASHING INSTALLATION

- A. General: Install sheet metal flashing and trim to comply with performance requirements and cited sheet metal standard. Provide concealed fasteners where possible, and set units true to line, levels, and slopes. Install work with laps, joints, and seams that are permanently watertight and weather resistant.
- B. Roof Edge Flashing: Anchor to resist uplift and outward forces according to recommendations in cited sheet metal standard unless otherwise indicated. Interlock bottom edge of roof edge flashing with continuous cleat anchored to substrate.
- C. Copings: Anchor to resist uplift and outward forces according to recommendations in cited sheet metal standard unless otherwise indicated.
 - 1. Fabricate sections in 10 feet lengths. Width of coping shall be fabricated to be a maximum 1/2 inch wider than the width of the wall; field verify parapet wall width prior to sheet metal fabrication.
 - 2. Extend self adhering underlayment up and over wood blocking and extend onto the base flashing and exterior face of wall a minimum 1-1/2 inches.
 - 3. Furnish with continuous cleats to support edge of external leg and fabricated from 22 gauge stock. Secure cleat at 6" on center unless otherwise noted in the Contract Drawings or as required to meet ANSI/SPRI ES-1. External leg shall extend below bottom edge of wood nailer and onto wall a minimum of 2".
 - 4. Fasten inside leg with 1 1/2" neoprene gasketed fasteners at 18" on center unless otherwise noted in the Contract Drawings or as required to meet ANSI/SPRI ES-1.
 - 5. Coping joints shall be one inch high, locked, standing seams as indicated in the Contract Drawings.
 - 6. Corners shall be mitered.
- D. Expansion Joint: Anchor to resist uplift and outward forces according to recommendations in cited sheet metal standard unless otherwise indicated.
 - 1. Extend self adhering underlayment up and over wood blocking and extend onto the base flashing a minimum 1-1/2 inches.

2. Fabricate sheet metal cover and cleat sections in 10 feet lengths.
 3. Provide continuous cleat to loose lock EJ cover onto and fabricated from 22 gauge sheet metal. Secure cleat at 12 inches on center at vertical and horizontal faces of curb unless otherwise noted in the Contract Drawings. Vertical leg shall cover top of base flashing a minimum of 2 inches.
 4. Fasten vertical leg of EJ cover with 1 ½ inches neoprene gasketed fasteners at 12 inches on center unless otherwise noted in the Contract Drawings. Loose lock EJ cover onto continuous cleat.
 5. EJ cover joints shall be one inch high, locked, standing seams as indicated in the Contract Drawings.
 6. Corners shall be mitered.
- E. Counterflashing: Coordinate installation of counterflashing with installation of base flashing. Insert counterflashing in reglets or receivers and fit tightly to base flashing. Provide 2 inch wide wind clips at 24 inches on center. Extend counterflashing 4 inches over base flashing. Lap counterflashing joints minimum of 4 inches. Trim hemmed edge of counterflashing on underlying section of counterflashing so that sheet metal nests properly.
- F. Primary Scupper Flashing:
1. Fabricate thru-wall scupper flange, liner, and faceplate as shown in Contract Drawings. Scuppers dimensions shall be as indicated in the Contract Drawings.
 2. Clean and solder all seams of the flange and liner.
 3. Provide flange which extends a minimum of 4" on top and sides of scupper, and extends a minimum of 4" out onto the horizontal membrane. Set all flanges in a full bead of roof cement.
 4. Strip-in flange as indicated in the Contract Drawings.
 5. Provide faceplate which extends 1.5" around the entire scupper. Set faceplate in a bead of sealant.
 6. Scupper Liner shall extend 1" beyond the exterior wall face and lock onto faceplate at sides and sill.
 7. The face plate shall lock over scupper liner at head to provide a water shedding condition.

3.5 WALL/SOFFIT PANEL INSTALLATION

- A. General: Install ACM panels to intercept and exclude penetrating moisture according to cited sheet metal standard unless otherwise indicated. Coordinate installation of wall flashing with installation of wall-opening components.
- B. Provide self-adhering underlayment over substrate.
- C. Provide clips and fasteners as required by the ACM panel manufacturer to meet or exceed the uplift pressures.

3.6 CLEANING AND PROTECTION

- A. Clean exposed metal surfaces of substances that interfere with uniform oxidation and weathering.
- B. All sheet metal work shall be thoroughly cleaned of all asphalt, flux, scrapes and dust.

- C. Clean off excess sealants.
- D. Remove temporary protective coverings and strippable films as sheet metal flashing and trim are installed unless otherwise indicated in manufacturers written installation instructions.

END OF SECTION 076200