

February 23, 2022

**Chiller Replacement Project – St. Augustine Campus (SJR-BID-01-2022)
St. Johns River State College**

Architect's Job Number: 015W07B

ADDENDUM 2

All items in the Addendum are incorporated into the Contract Documents.

Item 1.

Q1: Specification Section 01.11.00 seems to be for the cooling tower replacement and not the chiller replacement.

A1: See revised Summary of Work, Attachment A.

Q2: Upon inspection of the site, the chiller room is filled with shelving, workbenches, equipment, etc. This will all need to be removed prior to installation of the new chiller, emergency exhaust system, and floor sealer. Please confirm that all loose furniture, shelving, etc. will be removed by the owner prior to the start of work.

A2: Loose shelving, work benches, equipment, etc. will be removed by the owner prior to work.

Q3: Note #11 on E200 says to rework existing light fixtures as required to accommodate modifications to electrical conduit and chiller piping. Please clarify what is required for the light fixture scope.

A3: Shift the fixtures side to side or suspend them below new piping. The contractor should not have fixtures directly above any new overhead piping.

Q4: Detail A/A-1 calls for new structural steel to support the exhaust fan. Will the design of this be provided or should engineering for this system to be included in our bid?

A4: Contractor shall include in bid.

Q5: Specification Section 23 0 16-3.2-A calls for a 6" high concrete housekeeping pad, but 1/A-1 calls for a 4" high concrete housekeeping pad. Please clarify which is correct.

A5: Extended housekeeping pad shall match depth of existing. As per architectural plan, provide 4" Pad extension as noted.

Q6: Details B&C/A-1 call for backer rod and sealant to be installed at the exterior wall where the louver and exhaust fan are installed. Is there a specific manufacturer that you require for these materials?

A6: See provided Specification Section 079000 attached to this Addendum as Attachment B.

Q7: Will testing for the new concrete housekeeping pad be required? If so, will it be the responsibility of the contractor or owner?

A7: Testing is required and the responsibility of the contractor.

Q8: IS the condenser water piping to be removed all the way to the existing tower?

A8: Yes, all condenser water piping from the pumps to the tower is to be removed and replaced.

Q9: The two condenser water pumps are remaining. Are the suction diffusers, flexes, and triple duty valves being replaced?

A9: Please include replacement of suction diffusers, flexes, and triple duty valves in scope of work.

Q10: The drawings show a strainer outside on the condenser water piping. With the suction diffusers on the pumps is this necessary and if so if it to be a basket strainer or y strainer?

A10: The existing system maintained an exterior strainer. Contractor shall do the same to ensure the same water quality to the system. The strainer shall be a basket type.

Q11: Is old equipment to be disposed of by Mechanical contractor?

A11: Contractor should dispose of all equipment. The college realizes there is scrap value in some of the equipment and the contractor should include that value in their bid.

Q12: Is the inline Pulse Pure in condenser water piping being reused?

A12: The inline pulse pure system (nonchemical water treatment) is to be demolished and replaced with standard chemical water treatment.

End of Addendum No. 2

SUMMARY OF WORK

PART 1 - GENERAL

1.1 SUMMARY

- A. Related Sections
 - 1. Special Requirements - 01 35 00

1.2 WORK COVERED BY CONTRACT DOCUMENTS

- A. The work to be performed under this contract consists of that work defined in the Contract Documents for the Chiller Replacement Project – St. Augustine Campus
- B. Description of Work: To remove the existing Smardt Chiller and replace with new 340 ton chiller. Re-use the existing pumps and replace as required. Replace condenser side piping and install a chemical treatment system. Provide all required electrical modifications. Install new refrigerant evacuation system. Expand existing housekeeping pad for new chiller and provide new floor coating this area. Rework additional structural supports as required.

1.3 CONTRACTOR RESPONSIBILITIES:

- A. Designate submittals and delivery date for each product.
- B. Review shop drawings, product data, samples, and other submittals. Submit to Architect with notification due to non-conformance with Contract Documents. Shop drawings that are not reviewed by the Contractor shall be returned.
- C. Receive and unload products at site
- D. Inspect deliveries, record shortages, and damaged or defective items and inform the Architect.
- E. Coordination of Work
 - 1. The General Contractor and Subcontractors shall review other sections of work applicable to their work and ascertain requirements in other sections applicable to their work. Each shall be held responsible for coordination and inclusion of the work indicated as it were in the particular subcontractor's section. The Architect shall be advised of any discrepancies or conflicts at the earliest moment.
 - 2. All subcontractors, suppliers, etc., shall be responsible for knowing what information is given on all sheets of the plans and specifications concerning his particular work.
 - 3. Paragraphs 1 and 2 shall be included in the Contractor-Subcontractor agreement.
- F. Effect of Addenda, Amendments, Bulletins, Deletions, Omissions and Change Orders
 - 1. No special implication, interpretation, in construction, connotation, denotation, import, or meaning shall be assigned to any provision of the Contract Documents because of changes created by the issuance of any (1) addendum, (2) amendment, (3) bulletin, (4) notice of other than the precise meaning that the contract documents would have had if the provision thus created had read originally as it reads subsequently to the (1) addendum, (2) amendment, (3) bulletin, (4) notice of deletion, (5) notice of omission, or (6) change order by which it was created.
- G. Contract Forms and Requirements
 - 1. Forms, requirements and documents included under Division 1 of this Project Manual together with the Table of Contents are a part of the Contract Documents.
 - 2. Drawing sheets as identified on Index to Drawings are a part of the Contract Document
 - 3. Documents, affidavits, and printed forms included in the Contract Documents are required by the Owner.
 - 4. The requirement of Division 1 applies to all Divisions and Sections of the Project Manual as if reproduced therein.

END OF SECTION

JOINT PROTECTION**PART 1 - GENERAL**

1.1 SUMMARY

- A. Section includes sealants and joint backing.

1.2 SUBMITTALS

- A. Product Data: Submit data indicating sealant chemical characteristics, performance criteria, substrate preparation, limitations, and color availability.

1.3 QUALITY ASSURANCE

- A. Applicator Qualifications:
1. Sealant/caulking contractor and job foreman shall have a minimum of 5 years experience installing sealants and caulking.
- B. Compatibility with Substrate:
1. Applicator shall be responsible for verifying that sealants and caulking used are compatible with joint substances.
- C. Mock-Ups:
1. The contractor may be required, at the owner's option, to install sealants and caulking in mock-ups prepared by other trades in order to demonstrate appearance and workmanship technique. Any mock-ups shall be done by those personnel who will be assigned to the project, using materials and techniques which will be used on the project.
- D. Joint Tolerance:
1. Joint width/depth ratios are critical to sealant and caulking performance. Compliance with the manufacturer's limitation is required.
- E. Manufacturer:
1. The manufacturer of the sealant and caulking used shall have been in the business of manufacturing the specified types of such sealants and caulking for not less than 10 years.
- F. Preconstruction Field-Adhesion Testing: Before installing sealant, field test the sealant adhesion to joint substrates as follows:
1. Locate test joints where indicated or, if not indicated, as directed by Architect.
 2. Conduct a minimum of two (2) field tests for each type of sealant and joint substrate indicated. Perform additional tests as necessary if required by the sealant manufacturer.
 - a. For window and door metal that is not yet installed, a sample of the product may be acquired to test for adhesion with the sealants and/or waterproofing materials that will be used in construction.
 3. Notify Owner and Architect seven days in advance of dates and times when sealant joint tests will be performed. Arrange for tests to take place with joint-sealant manufacturer's technical representative present.
 4. Test Method: Test joint sealants according to Method A, Field-Applied Sealant Joint Hand Pull Tab, in Appendix X1 in ASTM C 1193.
 - a. For joints with dissimilar substrates, verify adhesion to each substrate separately; extend cut along one side, verifying adhesion to opposite side. Repeat procedure for opposite side.
 - b. Install joint sealants in 5-foot joint lengths using same materials and methods required for joint preparation and joint sealant installation required for completed work. Allow sealants to cure fully before testing.
 - c. Make knife cuts as follows: A horizontal cut from one side of joint to the other followed 2 vertical cuts approximately 2" long at side of joint and meeting horizontal cut at of 2" cuts. Place a mark 1" from top of 2" piece.
 - d. Use fingers to grasp 2" piece of sealant just above 1" mark; pull firmly down at a 90° angle or more while holding a ruler along side of sealant. Pull sealant out of joint to the distance recommended by sealant manufacturer for testing adhesive compatibility,

- but not less than that equaling specified maximum movement capability in extension; hold this position for 10 seconds.
5. Provide a written report to document whether sealant in joint connected to pulled-out portion failed to adhere to joint substrates or tore cohesively. Include data on pull distance used to test each type of product and joint substrate. For sealants that fail adhesively, retest until satisfactory adhesion is obtained.
 6. Evaluation of Preconstruction Field-Adhesion-Test Results: Sealants not evidencing adhesive failure from testing, in absence of other indications of noncompliance with requirements, will be considered satisfactory. Do not use sealants that fail to adhere to joint substrates during testing.

1.4 ENVIRONMENTAL REQUIREMENTS

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

1.5 PRODUCT DELIVERY AND STORAGE:

- A. Delivery shall be in the manufacturer's original unopened container, clearly identifying each product specified, relating it to the product literature submitted. Storage shall be in accord with manufacturer's recommendation, with proper precautions concerning shelf life, temperature, humidity and similar factors ensuring the fitness of the material when installed.

1.6 GUARANTEE:

- A. Sealant joints shall be guaranteed against adhesive and cohesive failure of the sealant and against water penetration through the sealed joint for 5 years. Both the contractor and the sealant/caulking contractor shall sign the guarantee. Manufacturer shall warrant the joint sealer materials and shall furnish such warranty to the architect.

PART 2 - PRODUCTS

2.1 JOINT SEALERS

- A. Manufacturers:
 1. Dow Corning Corp.
 2. GE Silicones.
 3. Pecora Corp.
 4. Sika Corp.
 5. Tremco Sealants & Waterproofing.
 6. Substitutions: Approved equal permitted prior to bid.

2.2 MATERIALS, GENERAL

- A. Compatibility:
 1. Provide joint sealers, joint fillers and other related materials that are compatible with one another and with joint substrates under conditions of service and application, as demonstrated by sealant manufacturer based on testing and field experience.
- B. Colors
 1. Provide color of exposed joint sealers as selected by Architect from manufacturer's standard colors.

2.3 MATERIALS

- A. Exterior Sealant:
 1. Type: Low dirt pick-up, non-staining, medium-modulus, one-component, pre-pigmented, neutral-cure elastomeric silicone sealant;
 - a. Compliance:
 - 1) Sealant shall meet or exceed requirements of ASTM C920, Type S, Grade NS, Class 50, Use NT, G, M, A and O.
 - b. Acceptable Products:
 - 1) Dow Corning 756 SMS Building Sealant (20 yr non-stain warranty.)
 2. Type: Medium-modulus, one-component, pre-pigmented, neutral-cure elastomeric silicone sealant;

- a. Compliance: Sealant shall meet or exceed requirements of ASTM C920, Type S, Grade NS, Class 50, Use NT G, M, A, and O.
 - b. Acceptable Products:
 - 1) Dow Corning® 795 Silicone Building Sealant (20 yr warranty)
 - 2) Dow Corning® 790 Silicone Building Sealant (20 yr warranty)
 - 3) Dow Corning® 791 Silicone Weatherproofing Sealant (20 yr warranty)
 - 4) Pecora 890/895
 - 5) Tremco, Spectrem 1/2.
- B. Floor Joint Sealant:
- 1. ASTM C-920-79, Type S, Class 25, Grade P; TT-S-230(c), Class A, Type I; one component, self-leveling, polyurethane or polysulfide sealant, Shore A hardness greater than 35, joint movement range of $\leq 25\%$:
 - a. Acceptable Products:
 - 1) Pecora - NR 200
 - 2) Mameco - Vulkem 245
 - 3) Sika - Sikaflex 2CSL
 - 4) Architect approved equal prior to bid.
- C. Sealants in Wet Areas:
- 1. ASTM C-920-TS, Type S, Class 25, Grade NS; TT-S-1543 (a), Class A; one component, non-sag, mildew resistant, silicone sealant, Shore A hardness of 25-30.
 - a. Acceptable Product:
 - 1) Dow Corning - 786
 - 2) General Electric - Sanitary Sealant 1700
 - 3) Architect approved equal prior to bid.
- D. Caulking:
- 1. ASTM C-834-76 one component acrylic latex caulking, minimum 75% recovery per ASTM C-736-82. (For interior, non-structural applications not subject to any moisture contact and not used to separate conditioned environments from non-conditioned atmospheres.)
 - a. Acceptable Products:
 - 1) Pecora - AC-20
 - 2) Sonneborn - Sonolac
 - 3) Tremco - Acrylic-Latex
 - 4) Architect approved equal prior to bid.
- E. Primer:
- 1. Primer shall be used in accord with manufacturer's instructions, with all primers being applied prior to the installation of any backer rod or bond breaker tape. Manufacturer shall be consulted for all surfaces not specifically covered in submittal application instructions. If a stain-type primer is used, apply material in a manner that will prevent exposed stain residue related to application procedures.
- F. Backer Rod:
- 1. Shall be open or closed cell polyethylene or polyurethane as recommended by the sealant manufacturer.
 - a. Acceptable Manufacturers:
 - 1) ITP
 - 2) Dow-Ethnafoam
 - 3) Hercules
 - 4) Nomaco
 - 5) Architect approved equal prior to bid.
- G. Bond Breaker Tape:
- 1. An acceptable polyethylene or similar type bond breaker tape shall be used to prevent three-sided adhesion in locations where backer rod cannot be used.

2.4 ACCESSORIES

- A. Primer: Non-staining type, recommended by sealant manufacturer to suit application.
 - 1. Interior Sealants and Sealant Primers: Maximum volatile organic compound content in accordance with SCAQMD Rule 1168.

- B. Joint Cleaner: Non-corrosive and non-staining type, recommended by sealant manufacturer; compatible with joint forming materials.
- C. Joint Backing: Round foam rod compatible with sealant; ASTM D1056, sponge or expanded rubber D1565, open cell PVC D1667, closed cell PVC; oversized 30 to 50 percent larger than joint width; manufactured by.
- D. Bond Breaker: Pressure sensitive tape recommended by sealant manufacturer to suit application.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify substrate surfaces and joint openings are ready to receive work.
- B. Verify joint backing and release tapes are compatible with sealant.

3.2 PREPARATION

- A. Remove loose materials and foreign matter impairing adhesion of sealant.
- B. Clean and prime joints.
- C. Perform preparation in accordance with ASTM C1193.

3.3 INSTALLATION

- A. Perform installation in accordance with ASTM C1193.
- B. Perform acoustical sealant application work in accordance with ASTM C919.
- C. Measure joint dimensions and size joint backers to achieve width-to-depth ratio, neck dimension, and surface bond area as recommended by manufacturer, except where specific dimensions are indicated.
- D. Install bond breaker where joint backing is not used.
- E. Install sealant free of air pockets, foreign embedded matter, ridges, and sags.
- F. Apply sealant within recommended application temperature ranges. Consult manufacturer when sealant cannot be applied within these temperature ranges.
- G. Tool joints concave.

END OF SECTION