

## PURCHASING DEPARTMENT/WAREHOUSE

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Date: December 14, 2022

RE: IFB Ironwood Ridge Weatherization Phase II 12192022IR

Below are questions/answers for the above referenced RFQ. All other terms and conditions remain the same.

1. Four columns in the courtyard are heavily deteriorated. It is necessary to waterproof the tops of these columns prior to weatherization to achieve a warranty. We recommend a product from Soprema called Alsan Flashing which is a liquid applied coating with fabric reinforcement and qualifies for its own 20 year warranty. These 4 columns are the worst but all the column tops should be water proofed. See attached pictures

*See attached documents from the Architects*

2. There are numerous locations where the masonry to stucco transition has been caulked. There should be a stucco weep hole there which has now been filled. See attached pictures

*See attached documents from the Architects*

### **END OF AMENDMENT ONE IFB 12192022IR**

Amphitheater High • Canyon del Oro High • Ironwood Ridge High  
Amphitheater Middle School • Coronado K-8 School • Cross Middle School • La Cima Middle School • Wilson K-8 School  
Copper Creek Elementary • Donaldson Elementary • Harelson Elementary • Holaway Elementary • Innovation Academy • Keeling Elementary  
Mesa Verde Elementary • Nash Elementary • Painted Sky Elementary • Prince Elementary • Rio Vista Elementary • Walker Elementary • Rillito Center • Amphi Academy Online

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and Title IX Coordinator, (520) 696-5164, [drucker@amphi.com](mailto:drucker@amphi.com), or Kristin McGraw, Executive Director of Student Services, (520) 696-5230, [kmcgraw@amphi.com](mailto:kmcgraw@amphi.com).



Columns











## Amendment 1 Amphitheater Public School IRHS – Weatherization Ph. 2

### AMENDMENT ONE – Date: December 13, 2022

The following Amendment shall be incorporated in the Contract Documents of the above project, and all requirements herein are fully a part of the Contract Documents.

#### DOCUMENTS ISSUED:

- Attachment 1 – Responses to Bid-walk questions
- Attachment 2 – Spec Section 072726 Liquid Applied Air Water Resistive Barriers
- Attachment 3 – Sheet A6.7 Bldg. 1002 Elevations
- Attachment 4 – Sheet A6.10 Bldg. 1003 Elevations

#### SPECIFICATIONS:

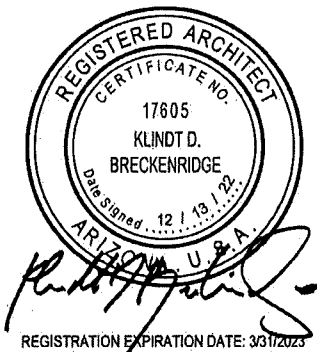
1. Add: Section 072726 Liquid Applied Air Water Resistive Barriers

#### DRAWINGS:

1. Clarification: Sheet A6.7 – added keynote No. 23 corresponding to views 2,3, and 4
2. Clarification: Sheet A6.10 – added keynote No. 23 corresponding to views 2 and 3

#### BID-WALK QUESTIONS:

1. Refer to attached RFI log for answers



END OF AMENDMENT ONE



## **Amendment 1 Amphitheater Public School IRHS – Weatherization Ph. 2**

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### **BID WALK QUESTIONS**

1. 4 columns in the courtyard are heavily deteriorated. It is necessary to waterproof the tops of these columns prior to weatherization to achieve a warranty. We recommend a product from Soprema called Alsan Flashing which is a liquid applied coating with fabric reinforcement and qualifies for its own 20 year warranty. These 4 columns are the worst but all the column tops should be water proofed. See attached picture.

**Response: drawings have been updated to show columns that require water proofing. Spec section has been incorporated as well. See Attachments on Amendment 1.**

2. There are numerous locations where the masonry to stucco transition has been caulked. There should be a stucco weep hole there which has now been filled. Please advise. See attached picture

**Response: there was no visual evidence of previously installed reveal where stucco meets CMU unit. Where caulk exists, replace with new caulk.**

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**SECTION 072726**  
**LIQUID APPLIED AIR WATER RESISTIVE BARRIERS**

**PART 1 - GENERAL**

**1.01 SUMMARY**

- A. Work shall include, but is not limited to, the application of the specified ready-mixed resilient, fluid applied, air/water-resistive barrier and flexible flashing
  - 1. Clean and prepare substrates.
  - 2. Seal and bridge open gaps and open air pathways including:
  - 3. Provide labor and materials necessary to complete the water-resistive air barrier and associated flexible flashing suitable for use as part of a secondary drainage system for CMU.
  - 4. Refer to drawings for all related materials and labor required.

**1.02 DEFINITIONS**

- A. Water-Resistive Barrier Assembly: The collection of water-resistive materials and accessories that direct incidental water that may pass the primary rain screen out of the wall cladding while providing protection for underlying sheathing materials.
- B. ASTM D 1079-Definitions of Term Relating to Roofing and Waterproofing.
- C. The National Roofing Contractors Association (NRCA) Roofing and Waterproofing Manual, Fifth Edition Glossary.

**1.03 REFERENCES**

- A. AMERICAN STANDARD OF TESTING METHODS (ASTM):
  - 1. D4258 Practice for Surface Cleaning Concrete for Coating
  - 2. D4263 Test Method for Indicating Moisture in Concrete by the Plastic Sheet Method
  - 3. D4541 Standard Test Method for Pull-Off Strength of Coatings Using Portable Adhesion Testers
  - 4. E84 Test Method for Surface Burning Characteristics of Building Materials
  - 5. E96 Test Methods for Water Vapor Transmission of Materials

**1.04 SUBMITTALS**

- A. Product Data Sheets: Submit manufacturer's product data sheets, installation instructions and/or general requirements for each component.
- B. Safety Data Sheets: Submit manufacturer's Safety Data Sheets (SDS) for each component.
- C. Sample/Specimen Warranty from the manufacturer and contractor.
- D. Contractor Authorization: Submit written certification from manufacturer indicating the applicator is authorized by the manufacturer to install the specified materials and system.
- E. Closeout Submittals:
  - 1. Provide manufacturer's and contractor's warranties upon substantial completion of the roofing system.

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**LIQUID APPLIED AIR WATER RESISTIVE BARRIERS**

**1.05 WARRANTY**

- A. Provide Manufacturer's 10-year Limited Materials Warranty for the specified fluid applied, air/water-resistive barrier.

**1.06 QUALITY ASSURANCE**

- A. **MANUFACTURER QUALIFICATIONS:**
1. Manufacture shall have 20 years of experience manufacturing roofing, waterproofing, vapor barriers, air barriers and related building enclosure materials.
  2. Manufacturer shall have an ICC-ES Evaluation Report confirming compliance with AC 212 Acceptance Criteria for Water-Resistive Coatings used as Water-Resistive Barriers over Exterior Sheathing.
- B. **APPLICATOR QUALIFICATIONS:**
1. Applicator experienced in applying air/water-resistive barrier materials similar in material, design and extent to those indicated for this project, whose work has resulted in applications with a record of successful in-service performance.
  2. Knowledgeable in the proper use and handling of specified wall systems products.
  3. Employ skilled installers who are experienced and knowledgeable in air/water resistive barrier application, and familiar with the requirements of the specified work.
  4. Provide the proper equipment, manpower and supervision on the job site to install the system in compliance with the specified wall system manufacturer's published requirements.
- C. **REGULATORY REQUIREMENTS:**
1. Conform to applicable code requirements for air/water-resistive barriers.
- D. **SINGLE SOURCE MANUFACTURER:**
1. Primary fluid-applied air/water-resistive barrier and related accessories shall be sourced from one manufacturer regularly engaged in production of air/water-resistive barrier materials.
- E. **MOCKUPS:**
1. Before beginning installation of air/water-resistive barrier, provide mockups
  2. Coordinate construction of mockup to permit inspection by Owner's testing agency of air/water-resistive barrier before external insulation and cladding is installed.
  3. If designer determines mockups do not comply with project requirements, reconstruct mockups and apply air/water resistive barrier until mockups are approved by the Designer.

**1.07 DELIVERY, STORAGE AND HANDLING**

- A. Refer to each product data sheet or other published literature for specific requirements.

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- B. Deliver materials and store them in their unopened, original packaging, bearing the manufacturer's name, related standards, and any other specification or reference accepted as standard.
- C. Protect and store materials in a dry, well-vented, weatherproof location protected from damaging exposures, direct sunlight and extreme heat.

**1.08 SITE CONDITIONS**

**A. SAFETY:**

- 1. The applicator shall be responsible for complying with all project-related safety and environmental requirements.
- 2. The applicator shall review project conditions and determine when and where conditions are appropriate to utilize the specified materials. When conditions are determined by the applicator to be unsafe or undesirable to proceed, measures shall be taken to prevent or eliminate the unsafe or undesirable exposures and conditions, or equivalent approved materials and methods shall be utilized to accommodate requirements and conditions.
- 3. The applicator shall refer to product Safety Data Sheets (SDS) for health, safety, and environment related hazards, and take all necessary measures and precautions to comply with exposure requirements.

**B. ENVIRONMENTAL CONDITIONS:**

- 1. Do not apply materials in ambient temperatures below 4°C (40°F). Provide properly vented, supplementary heat during installation and drying period when temperatures less than 4°C (40°F) prevail or use a Low Temperature Additive specifically designed for the product.
- 2. Do not apply materials to frozen or frost covered surfaces.
- 3. Maintain ambient temperature at or above 4°C (40°F) during application of all materials and until dry. If a Low Temperature Additive is used, maintain ambient temperature no less than -4°C (25°F) during application of all materials and until dry.
- 4. Monitor substrate temperature and material temperature, as well as all environmental conditions such as ambient temperature, moisture, sun, cloud cover, wind, humidity, and shade. Ensure conditions are satisfactory to begin work and ensure conditions remain satisfactory during the installation of specified materials. Materials and methods shall be adjusted as necessary to accommodate varying project conditions. Materials shall not be installed when conditions are unacceptable to achieve the specified results.
- 5. Precipitation and dew point: Monitor weather to ensure the project environment is dry before, and will remain dry, during the application of materials. Ensure all materials and substrates remain above the dew point temperature as required to prevent condensation and maintain dry conditions.

**1.09 PERFORMANCE REQUIREMENTS**

**A. GENERAL:**

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1. Fluid-applied, vapor-permeable air/water-resistive barrier shall be capable of performing as a continuous vapor-permeable air barrier and as a liquid-water drainage plane flashed to discharge water and incidental condensation to the exterior.
  2. At wall cladding transitions, the air/water-resistive barrier shall form a continuous air barrier and shall make provision for water drainage, either by creation of an unobstructed drainage plane that extends across the cladding transition or by flashing to discharge to the exterior at the transition.
  3. Air barrier assemblies shall be capable of accommodating substrate movement and sealing substrate expansion and control joints, construction material changes, and transitions at perimeter conditions without deterioration and air leakage exceeding specified limits, or interruption of the drainage plane.
- B. ASTM E 2357, Air Leakage of Air Barrier Assemblies:
1. Maximum 0.02 l/s.m<sup>2</sup> @ 75 Pa (0.004 cfm/ft<sup>2</sup> @ 1.57 psf).
- C. ASTM D 4541, Pull-Off Strength of Coatings:
1. Minimum 400 psi adhesion or substrate failure.
- D. ASTM E 84, Surface Burning:
1. Flame spread <25
  2. Smoke developed < 450.
- E. ICC-ES AC 148 Acceptance Criteria for Flexible Flashing Materials:
1. Sequential Testing: Weathering:
    - a. UV Light Exposure, ICC-ES AC 148.
      - i. No visible surface or structural changes when observed under 5X magnification.
    - b. Accelerated Aging, ICC-ES AC 148.
      - i. No visible surface or structural changes when observed under 5X magnification.
    - c. Hydrostatic Pressure Test, AATCC 127-1985,
      - i. No signs of failure after UV and Accelerated Aging.
  2. Peel Adhesion, ASTM D 3330 Method F.
    - a. All samples meet the minimum requirement of 263 N/mm (1.5 lbs/in).
    - b. UV Exposure: No visible surface or structural changes when observed under 5X magnification.
    - c. Accelerated Aging: No visible surface or structural changes when observed under 5X magnification.
    - d. After Elevated Temperature: No visible surface or structural changes when observed under 5X magnification.
    - e. After Water Immersion: No signs of failure after UV and Elevated Temperature Exposure.
  3. Cold Temperature Pliability, ASTM D1970 (Modified), AAMA 711.
    - a. No cracking after bending around a 25 mm (1 in) mandrel after 2 hour exposure to -18°C (0°F).
  4. Tensile Strength after UV Exposure, ASTM D 5034, AAMA 711.
    - a. All samples meet the minimum requirement of 3.5 N/mm (20 lbs per in).
  5. Resistance to Peeling, AAMA 711.

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- a. No signs of distress or failure after 24 hours of room temperature, 50°C (122°F), 65°C (149°F), and 80°C (176°F).

**PART 2 - PRODUCTS**

**1.10 MANUFACTURER**

- A. SINGLE SOURCE MANUFACTURER: All materials shall be provided by a single supplier with 20 years history or more in the US.
  - 1. Comply with the Manufacturer's requirements as necessary to provide the specified warranty.
- B. PRODUCT QUALITY ASSURANCE PROGRAM: Manufacturer shall be an ISO 9001 registered company.

**1.11 FLUID APPLIED, AIR/WATER-RESISTIVE BARRIER MATERIALS**

- A. Fluid applied air/water-resistive barrier. Maximum thickness 20 mils (.020 in) 0.5 mm in 5 gallon (19 L) pails.
- B. Reinforced non-woven polyester fabric, 83 g per sq. m (2.45 oz per sq yd). 4 in (101.5 mm) wide by 180 ft (54.8 m) long rolls.

**PART 3 - EXECUTION**

**1.12 EXAMINATION**

- A. Examination includes visual observations, qualitative analysis, and quantitative testing measures as necessary to ensure conditions remain satisfactory throughout the project.
- B. The applicator shall not begin work until conditions have been properly examined and determined to be clean, dry, free of releasing agents, paint or other residue or coatings, otherwise satisfactory to receive specified materials.
- C. Verify substrate is flat, free of fins or planar irregularities greater than 6.4 mm in 3 m (1/4 inch in 10 ft). Verify that no excess mortar exists on masonry ties, shelf angle and other obstructions.
- D. During the application of specified materials, the applicator shall continue to examine all project conditions to ensure conditions remain satisfactory to complete the specified fluid applied air/water-resistive barrier and associated work.

**1.13 PREPARATION**

- A. Before commencing work each day, the applicator shall prepare all substrates to ensure conditions are satisfactory to proceed with the installation of specified materials. Preparation of substrates includes, but is not limited to, substrate repairs, securement of substrates, eliminating all incompatible materials, and cleaning.

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- B. Protect all surrounding areas and surfaces from damage and staining during application of air/water-resistive barrier.
- C. Report all unsatisfactory conditions to the General Contractor.
- D. Where conditions are found to be unsatisfactory, work shall not begin until conditions are made satisfactory to begin work. Commencing of work shall indicate applicator's acceptance of conditions.
- E. Protect finished work and adjacent areas throughout the project.
  - 1. Allow at least 2 hours to dry, or more depending upon environmental conditions, before installing the specified cladding.

**1.14 APPLICATION**

- A. General: Apply products in accordance with current application procedures and in accordance with project requirements.
- B. Unit Masonry and Concrete Substrates:
  - 1. For concrete and masonry substrates apply two (2) coat applications at 10 mil each for a total wet film thickness of 20 mils. Lightweight CMU or other CMU with high porosity may require additional coating.

**1.15 CLEANING AND PROTECTION**

- A. Applicator shall protect air/water-resistive barrier system from damage during application. General Contractor shall make provision to protect air/water-resistive barrier during the remainder of construction period. Repair any damage that may occur after installation in a manner consistent with the scope and intent of this specification.
- B. Clean spills, stains, and soiling from construction that would be exposed in the completed work using cleaning agents and procedures recommended by manufacturer of affected construction.
- C. Remove masking materials after installation.
- D. Clean-up and properly dispose of waste and debris resulting from these operations each day as required to prevent damages and disruptions to operations

**END OF SECTION**

