



ADDENDUM No. 1
Request for Competitive Sealed Proposals (CSP)
19CSP098 Roof Improvements at Kealing Elementary School

January 24, 2019

Item 1: Updates to Specifications

Item 1:

Updates to Specifications in reference to this project can be found at planroom.millerids.com under 19CSP098

Roofing and Building Envelope Consultants

SECTION 07

11. ASTM E 108: 1991 (Rev. A) Fire Tests of Roof Coatings
12. ASTM G 21: 1990 Determining Resistance of Synthetic Polymeric Materials to Fungi
13. ASTM G 53: 1991 Operating Light – and Water-Exposure Apparatus (Fluorescent UV-Condensation Type) for Exposure of Nonmetallic Materials

1.4 SUBMITTALS

- A. Submit under provisions of Division 01 Section – Submittals.
- B. Shop Drawings: Provide layout of insulation, including crickets. Indicate dimensions, layout, spans, joint construction details, methods of anchorage, method and sequence of installation, locations of drainage devices, etc. Show sheet layout for entirety of project, with all side and end laps indicated in the intended locations. Show slope designations for all roof areas. Show on each drawing, seams to be field-welded and those that will be factory-welded.
- C. Product Data: Indicate membrane, base flashing materials, insulation, traffic pads, mechanical fasteners and fastening pattern, and all other proposed materials and accessories.
- D. Manufacturer's Installation Instructions: Include installation sequence, special instructions and Material Safety Data Sheets (MSDS) for all products.
- E. Manufacturer's Certification: Provide current letter(s) on membrane manufacturer's letterhead, signed by an authorized employee or corporate officer, attesting to all following items:
 1. Qualifications: Certify and document items in the Article on Qualifications, and;
 2. Membrane Manufacturer: Certify that the membrane manufacturer directly manufactures the roofing membrane; that the product is not made by a third party and then re-labeled.
 3. Other Products: Certify that selected products of the roofing system meet or exceed specified requirements, including that:
 - a. roofing system components are physically and chemically compatible for installation as designed; and
 - b. all proposed materials, including those by other manufacturers, are acceptable to membrane manufacturer for use in the system; and
 - c. proposed system meets all requirements for issuance of manufacturer's warranty; and
 - d. specifically identify and define any deviations.
 4. Installer: Certify that installer is approved by manufacturer for installation of selected products.

1.5 PERFORMANCE REQUIREMENTS

- A. General Requirements: Provide an installed thermoplastic single ply roofing system, flashings and related work that are watertight and will not permit the passage of liquid water, that will withstand wind loads, thermally induced movement, and exposure to weather without failure.

- B. Material Compatibility: Provide roofing materials that are compatible with one another under conditions of service and application required, as demonstrated by roofing system manufacturer based on testing and field experience.
- C.

Texas within that five-year period. Manufacturer shall certify, in writing, all materials to be used in the roof assembly as being compatible with their system, whether manufactured by that company or by others.

- B. Installer Qualifications: A qualified firm that has been continuously approved, authorized, or licensed by roofing system manufacturer to install manufacturer's product and specified roof system for minimum of five (5) years prior to Bid Date,
 - 1.

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2.3 AUXILIARY MATERIALS

- A. General: Furnish auxiliary materials recommended by roofing system manufacturer

- K. Miscellaneous Accessories: Provide pourable sealants, performed cone and vent sheet flashings, performed inside and outside corner sheet flashings, T-joint covers, termination reglets and other accessories as recommended by roofing system manufacturer for intended use.
- L. Other miscellaneous materials shall be of the "best grade" available and to be approved in writing by the roofing manufacturer, prior to use, for the specific application.
- M. PVC/KEE-Coated Metal: Manufacturer's standard membrane coated galvanized metal. See Section 07 6200 for fasteners and sealant.

2.4 ROOF WALKWAYS

- A. Walkway: A factory-formed, nonporous, heavy-duty, slip resisting, surface-textured protection pads, approximately 9/16 inch (14 mm) in thickness, as supplied by the PVC/KEE Manufacturer. Color of protection pads shall Light Grey.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine and verify that receiving substrate surfaces of the structure have no defects or errors, which would result in poor or potentially defective application or cause latent defects in workmanship.
 - 1. Do not permit voids greater than 1/4-inch wide in the substrate. Substrates for

- D. Prevent materials from entering and clogging roof drains and conductors and from spilling or migrating onto surfaces of other construction. Remove roof-drain plugs when no work is taking place or when rain is forecast.
- E. Protect adjacent areas or surfaces from damage as a result of the Work of this section.
- F. Complete terminations and base flashings and provide temporary seals to prevent water from entering completed sections of the roofing system at the end of the workday or when rain is forecast.

7. After adhering the PVC/KEE membrane, the PVC/KEE membrane shall be rolled firmly into place by using an approved weighted roller and by frequently rolling the weighted roller in two or more directions.
 8. Contractor is to ensure there are no wrinkles and “fish-mouths” in the PVC/KEE membrane and in the overlap membrane seams.
- H. Mechanically fasten sheet securely at all vertical to horizontal transitions, at points of terminations, and at the perimeter of roof to meet PVC/KEE Manufacturer’s Technical Department’s requirements for properly securing the specified roofing system.
- I. Use fastener tools with a depth locator and torque-limiting attachment as recommended or supplied by fastener manufacturer to ensure proper installation of membrane securement fasteners.
- J. Securement Around Perimeter and Rooftop Penetrations:
1. Around all perimeters, at the base of walls, drains, curbs, vent pipes, or any other roof penetrations, manufacturer’s fasteners and securement plates shall be installed. Fasteners and securement plates shall be installed accord to the manufacturer's instructions. Fasteners shall be installed using the fastener manufacturer's recommended fastening tools with depth locators.
 2. PVC/KEE membrane flashings shall extend a minimum of 3 inches past the securement bar or plates and is hot air welded to the PVC/KEE deck sheet.
 3. Mechanically fasten sheet securely at all vertical to horizontal transitions, at points of terminations, at the corners, and at the perimeter of roof to meet the project’s wind uplift requirements.
- K. Spread sealant bed over deck drain flange at deck drains and securely seal roofing sheet in place with drain clamping ring.
- L. Field-seam per to “Seam Installation” Article.

3.4 SEAM INSTALLATION

- A. General:
1. Hot air welding equipment shall be provided by or approved by the roofing manufacturer.
 2. All mechanics intending to use the hot air welding equipment shall have successfully completed a one-day PVC/KEE Manufacturer’s training course prior to starting the referenced project. Copy of the training class attendees shall be submitted to the Owner’s Representative prior to starting the project.
 3. All PVC/KEE membrane and membrane flashing to be welded shall be clean and dry.
 4. Tack welding of the membrane is not allowed. All seams shall be completely hot air welded.
 5. Seam overlaps should be 3 inches (75 mm) wide when automatic machine-welding and 4 inches (100 mm) wide when hand-welding, except for certain details
- B. Hand-Welding:
1. Hand-welded seams shall be completed in two stages. Hot-air welding equipment shall be allowed to warm up for at least one minute prior to welding.
 2. The back edge of the seam shall be welded with a narrow but continuous weld to

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2. Schedule visits to coincide with visits by Architect including each monthly pay application meeting.

3.9 PROTECTION AND CLEANING

- A. Protect sheet membrane roofing from damage and wear during the construction period. Installer is to inspect the completed roofing system for any damage and repair damages found in the roofing system.
- B. Correct deficiencies in or remove roofing that does not comply with requirements, repair substrates, reinstall roofing, and repair sheet flashings to a condition free of damage and deterioration at the time of Substantial Completion and per warranty requirements.
- C. Upon completion of the Work of this Section, dispose of, away from the Site, all debris, trash, containers, residue, roofing remnants and scraps.
- D. Remove all bituminous markings and stains from the finished membrane surface.
- E. The completed Roof shall be washed with water and approved cleaner to remove all dirt and residue from roof membrane.

3.10 TEMPORARY CUT-OFF AND PROTECTION

- A. All flashings shall be installed concurrently with the membrane in order to maintain a watertight condition as the work progresses. When a break in the day's work occurs in the installation of the roofing system, the roofing contractor shall install a temporary watertight seal. The roofing membrane shall be sealed to the substrate so that water will not be allowed to travel into or under the new or existing Roofing. When work resumes, the contaminated membrane shall be removed from the work area and disposed off site. None of these materials shall be reused in the new work.
- B. If inclement weather occurs while a temporary water stop is in place, the contractor shall provide the labor and materials to monitor the temporary water stop and to maintain a waterf thes(t)-4.6 (h)-9(n a)J0 Tw hesork.
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