

## Amphitheater Public Schools Copper Creek Elementary School MPR Roof Replacement BG Project No: 17.14.72

### ADDENDUM 1 – Date: January 11, 2021

This revision shall amend the construction documents and shall become part of the contract. All requirements contained in the original construction documents shall apply to this revision, and the general character of the work called for in this revision shall be the same as originally set forth in applicable portions of the original documents for similar work, unless otherwise specified herein. All work shall be performed as specified in the original documents, even if not particularly mentioned in this revision.

### DOCUMENTS ISSUED:

Attachment #1 - Section 073200 – Roof Tiles

### SPECIFICATIONS:

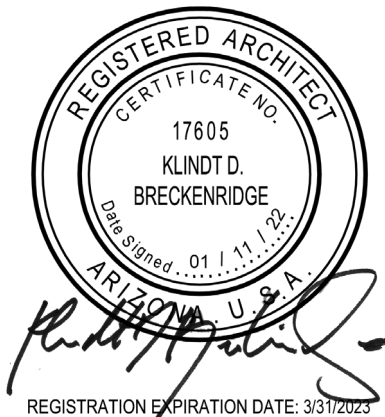
1. Delete Section 073213 - Clay Roof Tiles,
2. Add Section 073200 – Roof Tiles

### DRAWINGS:

1. N/A

### GENERAL COMMENTS / CLARIFICATIONS:

1. N/A



END OF ADDENDUM #1

**PART 1 - GENERAL**

**1.1 SUMMARY**

- A. Section Includes:
  - 1. Roof tiles, match existing.
  - 2. Underlayment materials.
  - 3. Metal flashing and trim.

**1.2 PREINSTALLATION MEETINGS**

- A. Preinstallation Roofing Conference: Conduct conference at Project site.

**1.3 ACTION SUBMITTALS**

- A. Product Data: For the following:
  - 1. Roof tiles.
  - 2. Underlayment materials.
- B. Samples: For each exposed product and for each color and texture specified.

**1.4 INFORMATIONAL SUBMITTALS**

- A. Sample warranty.

**1.5 MANUFACTURER'S INSPECTIONS**

- A. When the project is in progress, the roofing system manufacturer will provide the following:
  - 1. Report progress and quality of the work as observed.
  - 2. Provide periodic job site inspections at least 3 days per week followed by emailed photo reports documenting the inspection on those days.
  - 3. Report to the Owner and Architect in writing any failure or refusal of the Contractor to correct unacceptable practices called to the Contractor's attention.
  - 4. Confirm after completion that manufacturer has observed no applications procedures in conflict with the specifications other than those that may have been previously reported and corrected.

**1.6 DELIVERY, STORAGE, AND HANDLING**

- A. Deliver roofing materials to Project site in original containers with seals unbroken and labeled with manufacturer's name, product brand name and type, date of manufacture, approval or listing agency markings, and directions for storing and mixing with other components.

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- B. Store liquid materials in their original undamaged containers in a clean, dry, protected location and within the temperature range required by roofing system manufacturer. Protect stored liquid material from direct sunlight.
  - 1. Discard and legally dispose of liquid material that cannot be applied within its stated shelf life.
- C. Handle and store roofing materials, and place equipment in a manner to avoid permanent deflection of deck.

**1.7 FIELD CONDITIONS**

- A. Weather Limitations: Proceed with installation only when existing and forecasted weather conditions permit roofing system to be installed according to manufacturer's written instructions and warranty requirements.
- B. Do not apply roofing materials or membrane to damp deck surface.
- C. Do not expose materials vulnerable to water or sun damage in quantities greater than can be weatherproofed during same day.

**1.8 WARRANTY**

- A. Manufacturer's Warranty: Underlayment manufacturer must warranty the roof not to leak for 20 years. This must be a labor and materials warranty, be non-prorated, and include the removal of any tiles as needed to correct any leaks.
- B. Contractor will warranty that roof section will be free from faults and defects in new tile materials and workmanship and also not leak for five (5) years. Contractor will provide labor and materials to correct any leak within 48 hours. Contractor will provide copy of this warranty to underlayment manufacturer.
- C. Underlayment and low slope roofing membranes shall be from one manufacturer under one NDL warranty.

**PART 2 - PRODUCTS**

**2.1 ROOF TILES**

- A. Roof Tiles: ASTM C1492, molded- or extruded roof tile units of shape and configuration to match existing, with integral color, and free of surface imperfections. Provide with fastening holes prepunched at factory.
  - 1. Weight: Normal.
  - 2. Profile: Match existing.
  - 3. Size: Match existing.
  - 4. Finish and texture: Match existing.
  - 5. Colors, Blends, and Patterns: Match existing.

**2.2 UNDERLAYMENT MATERIALS**

- A. Self-Adhering, Polymer-Modified Bitumen Sheet, High Temperature: ASTM D1970/D1970M, minimum 45-mil thick sheet; glass-fiber-mat-reinforced, polymer-modified asphalt; with slip-resistant top surface and release backing; cold applied; and recommended in writing by manufacturer for use in tile roofing system required. Provide primer for adjoining roof tile, masonry, and metal surfaces to receive underlayment.
  - 1. Thermal Stability: Stable after testing at 240 deg F according to ASTM D 1970/D 1970M.

**2.3 ACCESSORIES**

- A. Asphalt Primer: ASTM D 41.
- B. Asphalt Roofing Cement: ASTM D 4586/D 4586M, Type II, asbestos free.
- C. Mortar: ASTM C 270, Type M, with ASTM C 979/C 979M, pigmented mortar matching the color of roof tiles for exposed-to-view mortar, and natural color for concealed-from-view mortar.
- D. Eave Closure: Match existing.
- E. Ridge Closure: Match existing.
- F. Wood Nailers: Comply with requirements for pressure-preservative-treated wood in Section 061053 "Miscellaneous Rough Carpentry."

**2.4 FASTENERS**

- A. Roofing Nails: ASTM F 1667, hot-dip galvanized-steel, 0.120-inch-diameter shank, sharp-pointed, conventional roofing nails with barbed shanks; minimum 3/8-inch-diameter head; of sufficient length to penetrate 3/4 inch into substrate or extend 1/8 inch through thickness of the sheathing, whichever is less.
  - 1. Where nails are in contact with metal flashing, use nails made from same metal as flashing.
- B. Nails for Wood Nailers: ASTM F1667; common or box, steel wire, flat head, and smooth shank.

**2.5 METAL FLASHING AND TRIM**

- A. General: Comply with requirements in Section 076200 "Sheet Metal Flashing and Trim."
- B. Fabricate sheet metal flashing and trim to comply with recommendations in SMACNA's "Architectural Sheet Metal Manual" for design, dimensions, metal, and other characteristics of the item.
- C. Vent-Pipe Flashings: ASTM B749, Type L51121, at least 1/16 inch thick. Provide lead sleeve sized to slip over and turn down into pipe, soldered to skirt at slope of roof and extending at least 4 inches from pipe onto roof.

**PART 3 - EXECUTION**

**3.1 PREPARATION**

- A. Clean substrate of dust, debris, moisture, and other substances detrimental to roofing installation according to roofing system manufacturer's written instructions. Remove sharp projections.

**3.2 INSTALLATION, GENERAL**

- A. Comply with roofing underlayment system manufacturer's written instructions.
- B. Substrate-Joint Penetrations: Prevent roofing asphalt and adhesives from penetrating substrate joints, entering building, or damaging roofing system components or adjacent building construction.

**3.3 INSTALLATION OF UNDERLAYMENT MATERIALS**

- A. Comply with roof-tile and underlayment manufacturers' written installation instructions and with recommendations in NRCA's "The NRCA Roofing Manual: Steep-Slope Roof Systems" applicable to products and applications indicated unless more stringent requirements are specified in this Section or indicated on Drawings.
- B. Self-Adhering, Polymer-Modified Bitumen Sheet: Install, wrinkle free.
  - 1. Comply with low-temperature installation restrictions of underlayment manufacturer.
  - 2. Install lapped in direction that sheds water.
  - 3. Lap sides not less than 4 inches.
  - 4. Lap ends not less than 6 inches, staggered 24 inches between succeeding courses.
  - 5. Roll laps with roller.
  - 6. Prime roof tile, masonry, and metal surfaces to receive self-adhering, polymer-modified bitumen sheet.
  - 7. Single-Layer Installation: Install over entire roof deck.
  - 8. Cover underlayment within seven days.

**3.4 INSTALLATION OF METAL FLASHING AND TRIM**

- A. Install metal flashings and other sheet metal to comply with requirements in Section 076200 "Sheet Metal Flashing and Trim."
  - 1. Install metal flashings in accordance with roof-tile manufacturer's written instructions and recommendations in NRCA's "The NRCA Roofing Manual: Steep-Slope Roof Systems."
- B. Pipe Flashings: Form flashing around pipe penetrations and tile roofing. Fasten and seal to tile roofing.

**3.5 INSTALLATION OF WOOD NAILERS**

- A. Install wood nailers securely fastened to roof deck at the following locations:

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1. Hips.
2. Ridges.
3. Rakes.

- B. Install beveled wood cant at eaves and securely fasten to roof deck.
- C. Install nominal 1-by-2-inch wood-batten nailers horizontally in 48-inch lengths with ends separated by 1/2 inch, at spacing required by roof-tile manufacturer, and securely fasten to roof deck.

**3.6 INSTALLATION OF ROOF TILES**

- A. Install roof tiles in accordance with manufacturer's written instructions and recommendations in TRI/WSRCA's "Concrete and Clay Roof Tile Installation Manual" and NRCA's "The NRCA Roofing Manual: Steep-Slope Roof Systems" unless more stringent requirements are specified in this Section or indicated on Drawings.
1. Install tiles to resist wind forces resulting from design wind speeds indicated on Drawings.
  2. Maintain uniform exposure and coursing of roof tiles throughout roof.
  3. Extend tiles 2 inches over eave fasciae.
  4. Nail Fastening: Drive nails to clear the roof tile so the tile hangs from the nail and is not drawn up.
    - a. Install wire through nail holes of cut tiles that cannot be nailed directly to roof deck, and fasten to nails driven into deck.
  5. Mortar Setting: Install roof tiles in accordance with manufacturer's written instructions and acceptance criteria of authorities having jurisdiction.
  6. Tile Locks: Install to support and lock overlying tile butts to underlying tiles.
  7. Cut and fit roof tiles neatly around roof vents, pipes, ventilators, and other projections through roof. Fill voids with mortar.
  8. Install roof tiles with color blend to match existing.
- A. Medium-Profile, Interlocking Roof-Tile Installation:
1. Provide minimum 3-inch lap between succeeding courses of roof tiles.
  2. Install rake tiles indicated.
  3. Install ridge tiles with laps facing away from prevailing wind. Seal laps with asphalt roofing cement.

**3.7 FIELD QUALITY CONTROL**

- A. Inspection: Provide manufacturer's field observations three days per week.
1. Warranty shall be issued upon manufacturer's acceptance of the installation.
  2. Field observations shall be performed by a Technical Representative employed full-time by the manufacturer and whose primary job description is to assist, inspect and approve membrane installations for the manufacturer.
  3. Provide observation reports from the Technical Representative indicating procedures followed, weather conditions and any discrepancies found during inspection.
  4. Provide a final report from the Technical Representative, certifying that the roofing system has been satisfactorily installed according to the project specifications, approved details and good general roofing practice.

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- B. Final Roof Inspection: Arrange for roofing system manufacturer's technical personnel to inspect roofing installation on completion.
  - 1. Notify Architect and Owner 48 hours in advance of date and time of inspection.
  - 2. Walk roof surface areas of the building, inspect perimeter building edges as well as flashing of roof penetrations, walls, curbs and other equipment. List all items requiring correction or completion and furnish copy of list to each party in attendance.
  - 3. Repair or replace deteriorated or defective work found at time above inspection as required to produce an installation which is free of damage and deterioration at time of Substantial Completion and according to warranty requirements.
  - 4. Notify the Owner and Architect upon completion of corrections.
  - 5. Following the final inspection, provide written notice of acceptance of the installation from the roofing system manufacturer.
- C. Roofing system will be considered defective if it does not pass inspections.
  - 1. Additional inspecting, at Contractor's expense, will be performed to determine if replaced or additional work complies with specified requirements.

**3.8 PROTECTING AND CLEANING**

- A. Protect roofing system from damage and wear during remainder of construction period.
  - 1. When remaining construction does not affect or endanger roofing, inspect roofing for deterioration and damage, describing its nature and extent in a written report, with copies to Architect and Owner.
- B. Correct deficiencies in or remove roofing system that does not comply with requirements, repair substrates, and repair or reinstall roofing system to a condition free of damage and deterioration at time of Substantial Completion and according to warranty requirements.
- C. Clean overspray and spillage from adjacent construction using cleaning agents and procedures recommended by manufacturer of affected construction.

END OF SECTION