



**Administrative Services
Contracts Office**

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Via Electronic Mail

ADDENDUM NO. 2

Date: June 10, 2011
Issued by: Sacramento City Unified School District
Project: Isador Cohen HVAC Replacement

You are hereby notified of the following changes, clarifications, or modifications to the original Contract Documents, Specifications, and Drawings. This Addendum shall supersede the original project documents, and shall take precedence over anything to the contrary therein. All Addenda shall be acknowledged in the Bid Form. Failure to do so may result in disqualification of the bid. All other conditions remain unchanged.

Work described in this addendum is to be of the same quality as specified in the original documents.

ADDENDUM NO. 1 – CLARIFICATION OF SCUSD DIVISION 0 ISSUED

1. PROJECT MANUAL'S TABLE OF CONTENTS:

a. DIVISION 0, delete sections and replace with:

Project Manual Bid No. 701-0146 Cover Sheet
Project and Project Owner Sheet
Project Directory
Table of Contents
Public Notice to Contractors
Instructions to Bidders
Bid Form
Project Stabilization Agreement/Contractor Agreement to be Bound
Noncollusion Declaration to be signed by Bidder and Submitted with Bid
Designation of Subcontractors
Project Stabilization Agreement/Subcontractor Agreement to be Bound
Workers' Compensation Certificate
Drug-Free Workplace Certification
Declaration Form to be Submitted with Bid
Bid Bond
Determination of Bidder Responsibility Questionnaire
Questionnaire Certification
Contract
Payment Bond
Faithful Performance Bond

DIVISION 00 – PROCUREMENT AND CONTRACTING REQUIREMENTS

Delete and replace with Division 0 Sections as listed above and included with this addendum.

PROJECT MANUAL

07 51 00 BUILT-UP BITUMINOUS ROOFING

Delete and replace with 07 51 00 included with this addendum

BUILT-UP BITUMINOUS ROOFING

Section 07 51 00

1.01 SUMMARY

- A. Section specifies conventional built-up roofing over plywood substrates. Section also specifies cants, crickets, and bituminous roof flashing systems.
- B. Related requirements specified elsewhere:
 - 1. Documents affecting work of this Section include, but are not limited to, Conditions of the Contract and Sections in Division 01 of these Specifications.
 - 2. Metal flashings - Section 07 62 00, Sheet Metal Flashing and Trim.

1.02 SYSTEM DESCRIPTION

- A. Design Requirements: All materials shall be acceptable to the system manufacturer.
 - a. Roofing: Tremco modified bitumen mineral surfaced system with reflective coating.
 - b. Bituminous flashing system:
 - c. Tremco ICE Cool Roof rated coating over entire roof system.
 - c. Walkways: Lay-out as indicated on the Drawings with 1-inch gap between each section.
 - d. Cant strips: Install at angle intersections of roof deck and vertical walls and curbs.
- B. Performance Requirements: Roof Assemblies: Minimum fire resistive, UL Class "B"; ASTM E 108.
- C. Re-roofing: Correct warped, buckled or deformed plywood.

1.03 SUBMITTALS

- A. Quality Assurance:
 - 1. Summaries of materials and methods for each system.
 - 2. Manufacturer's specifications and installation instructions for each system.
 - 3. Samples: Mechanical fasteners, walkway pad material.
 - 4. Certification of roof covering classification.
- B. Contract Close-out: Contractor's and manufacturer's warranty

1.04 QUALITY ASSURANCE

- A. Installer Qualifications: Approved by manufacturer for "no dollar limit" guaranty applications.
- B. Pre-Installation Meeting: Before fabrication or installation of membrane roofing, flashing, and roof insulation work is begun, but after roof decks are serviceable, conduct a meeting at the job site to determine and coordinate so that the exact requirements

necessary to make the buildings water and weather tight are know to all construction participants.

- C. Regulatory requirements: Reflective coating listed by the California Cool Roof Rating Council.

1.05 DELIVERY, STORAGE AND HANDLING

- A. Deliver materials in the original packages bearing the manufacturer's label and inspection label.

1.06 PROJECT CONDITIONS

- A. Apply roofing membrane when ambient temperature is above 40 degrees F.
- B. Apply roof coating when ambient temperature is above 50 degrees F and rising, with no dew point at roof surface, rain or freezing weather anticipated within 24 hours of coating application.
- C. Do not expose materials vulnerable to water or sun damage in quantities greater than can be weatherproofed the same day.

1.07 SEQUENCE

- A. Sequence work so that roofing system is installed after roof top mechanical equipment has been fully installed.
- B. Adjust schedule as required in order to complete roofing work, in an expeditious manner as required by the guaranty.
- C. Re-roofing requirements: Remove only that portion of existing roofing that can be recovered or adequately protected against water infiltration pending completion of new roofing and flashings.

1.08 WARRANTY

- A. Contractor's Guarantee:
 - 1. Warrant that the roof assembly will remain water and weather-tight for 3 years.
 - 2. Cover damage to building and contents resulting from failure to prevent penetration of water.
- B. Warranty and Service Agreement:
 - 1. Upon project completion, State Representative's acceptance, and Manufacturer's acceptance, roofing manufacturer shall deliver to the State a ten (10) year Total Roofing System Quality Assurance Plus Warranty and Service Agreement. Manufacturer will during the second and fifth year of this warranty service agreement, provide the following for the Cold Process Emulsion Roofing System:
 - a. Inspection by a Technical Service Representative and delivery of a written inspection report documenting roof conditions.
 - b. Preventive maintenance and necessary repairs, including splits, tears, or breaks in the roof membrane system and flashings which threaten the integrity of the roof system and are not exempt due to neglect, negligence, vandalism or some other exclusion.
 - c. General rooftop housekeeping and cleanup generally including the removal of debris.
- C. Tremcare Annual Maintenance Warranty:

1. Provide annual inspection and maintenance program for 10 years to include the following:
 - a. Annual Inspection by Warranty Technician.
 - b. Removing all debris off the roof.
 - c. Repairing any visible defects.
 - d. Cleaning of roof membrane.
 - e. (800) number that is staffed 24 hours per day, 7 days per week to report any leaks that may occur during the warranty period.
 - f. Web-based program for access to inspection and repair reports, photos, and roof drawings.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

- A. Acceptable manufacturer: Tremco, Inc or Architect Approved Equal

2.02 MATERIALS

- A. Cants and crickets: Either perlite or mineral fiber board; approved and eligible for the specified warranty by the roof manufacturer and conforming to either ASTM C726 or C728.
 1. Crickets: Precut thickness and tapers as required to meet minimum specified slopes.
 2. Cants: 2 by 2-inches, unless otherwise indicated on the Drawings.
- B. Membranes: As manufactured by Tremco. Roof system manufacturer to furnish all plies. All felts shall be fire resistive type.
 1. Base Felt: Asphalt coated, polyester/fiberglass/polyester trilaminate base sheet; ASTM D4601, Type II.; Tremco Burmastic Composite Ply or accepted equal.
 2. Ply Felt: glass fiber, asphalt coated, ASTM D 2178, Type VI. Tremco Premium VI or accepted equal.
 3. Cap Sheet: Mineral surfaced, SBS modified cap sheet; Tremco Powerply Standard FR or accepted equal.
 4. Base Flashing Backer Sheet: Asphalt coated, polyester/fiberglass/polyester trilaminate base sheet; ASTM D4601, Type II.; Tremco Burmastic Composite Ply or accepted equal.
 5. Base Flashing Surface Sheet: Mineral surfaced, SBS modified cap sheet; Tremco Powerply Standard FR or accepted equal.
- C. Cool Roof Coating: As manufactured by Tremco.
 1. High solids, water based, heavy bodied elastomeric coating. Cool Roof rated and meets LEED requirements. Tremco ICE Coating or Accepted Equal.
- D. Ancillary materials
 1. Asphalt: ASTM D312, Type and temperature as recommended by the manufacturer for the slope condition.
 2. Walkway Pads: Fiberglass reinforced with granular surfacing 36 inch wide; ASTM 4977; Tremco Tremtred or accepted equal.
 3. Plastic cement: Tremco ELS or accepted equal.
 4. Mechanical Fasteners: Approved by roof system manufacturer.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Before beginning the work specified in this section, carefully inspect the substrate to which the work specified in this section will be applied. Execution of the work specified in this section shall constitute a certification by the Contractor that the substrate is in proper condition to receive subsequent work.

3.02 PREPARATION

- A. Apply no materials during wet weather or on wet surface. Test roof deck for dryness by heating specified bitumen to required temperature and applying one pint at each 10 squares of roofing. Do not begin roofing if bitumen shows signs of foaming.
- B. Structural surfaces: Smooth, even, sound, dry and clean before any material is applied.
- C. Verify that equiviscous temperature of bitumen at point of application is in accordance with the referenced standards.
- D. Re-roofing: In addition to the requirements for roofing provide watertight seals at all edges of or flashings through roofing work daily; remove such seals before continuing with roofing work.

3.03 INSTALLATION

- A. Insulation:
 - 1. Install one layer of ½" wood fiber board to plywood deck. Fasten with screws and plates with 1 fastener for every 2 square feet.
- B. Cants
 - 1. Install cant tightly butted to walls and nail unto wood deck at 12-inches on center. Miter corners evenly.
 - 2. Cover insulation board with roofing on same date as board is installed.
- C. Roofing: Apply felts smooth, free from air pockets, wrinkles, fish-mouths or tears.
 - 1. In accordance with manufacturer's recommendations; UL requirements for required fire classification of roofing; and NRCA Roofing and Waterproofing Manual where not otherwise recommended by manufacturer.
 - 2. Penetrations
 - a. Set metal flashings between plies in full bed of plastic cement. Prime top side of flange.
 - b. Fit roofing neatly to pipes, vents, flues, roof drains, scuppers and curbs, and flash seal with plastic cement.
 - c. Provide 2 additional plies of felt, folded back over top ply to form an envelope. Mop in and seal.
 - 3. Stops: Nail metal stops a minimum of 4-inches on center
 - 4. At walls, extend base felt and other piles 1-inch minimum above cant, solid mopped to cant and dry to wall.
 - 5. Install two ply membrane and bitumen glaze coat for cut-off at end of day's operation. Glaze felts exposed at end of working day. Remove cut-off before resuming roofing.
 - 6. Extend flashing felt out onto roof 5 inches minimum from toe of cant or edge of metal flange.
 - 7. Pads: Set walkway surfacing with solid bearing in hot asphalt flood coat.

- C. Re-roofing: In addition to the requirements for roofing provide watertight seals at all edges of or flashings through roofing work daily; remove such seals before continuing with roofing work.

3.04 ROOF REPAIRS PROR TO COATING

- A. New Scuppers:
 - 1. Fill in existing drains with insulation at areas noted on plans.
 - 2. Install scupper as shown on plans and tie into existing plumbing.
- B. Valleys with Ponding Water:
 - 1. Install additional base sheet and cap sheet at locations shown on plans.
 - 2. Install per Manufacturer's instructions.
- C. Base Flashing below windows:
 - 1. Remove existing metal counterflashing.
 - 2. Install new base flashing consisting of base sheet and cap sheet.
 - 3. Install per Manufacturer's instructions.
 - 4. Seal top of base flashing with termination bar and butyl tape.
 - 5. Caulk the top of the termination bar prior to reinstalling the counterflashing.
- D. Abandoned Vent Penetrations:
 - 1. Remove and dispose of vents.
 - 2. Frame in holes as shown on the plans.
 - 3. Break the angle from the existing roof to the raised curb with tapered edge strip.
 - 4. Install new roof system consisting of base, two Type VI ply sheets, and modified cap sheet, and tie into existing roof.

3.05 COOL ROOF COATING

- A. Prior to application of ICE coating, roofing contractor will inspect roof with manufacturer's representative. Any deficiencies in existing system must be corrected prior to application of the coating.
- B. Clean roof surface by powerwashing and brooming/blowing all loose debris, dirt, and granules off the roof.
- C. Prime surface of roof and base flashings with Tremco SP Primer.
 - 1. Application Rate: 300 square feet per gallon.
- D. Install ICE reflective surface coating.
 - 1. Install coating over entire roof and flashing surfaces.
 - 2. Application rate: 2 coats at 2 gallons per square per coat. Total application of 4 gallons per square.
 - 3. Allow first coat to fully dry before application of second coat.

3.06 FIELD QUALITY CONTROL

- A. Check for leaks and repair unsound and damaged areas
- B. Manufacturer's Field Services
 - 1. Manufacturer to inspect the roofing work on each and every building, during each visit to the construction site, in the presence of the Inspector of Record.
 - 2. Visit site when so requested by the Inspector of Record and as required to assure issuance of specified warranty.
 - 3. As a minimum:
 - a. Attend pre-roofing conference.
 - b. Inspect building decks prior to installation of roof insulation.

- c. Inspect during installation of roof insulations, crickets and cants.
 - d. Inspect roofed surfaces before application of final membrane.
 - e. Inspect roofed surfaces after installation of final membrane,
 - f. Inspect base and flexible flashing substrates before installation of substrates.
 - g. Inspect base and flexible flashings after installation.
4. Furnish word processed written report of findings for each site visit.

3.07 PROTECTION

- A. Where traffic must continue over finished roof membrane, protect surfaces free from damage until acceptance by the Owner.

HVAC Replacement
Isador Cohen Elementary School

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Job No. 2868.2
Addendum No. 2

END OF SECTION

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