

SECTION 07 01 50 - PREPARATION FOR RE-ROOFING

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes the following:
 - 1. Roof tear-off.
 - 2. Partial roof tear-off.
 - 3. Roof re-cover preparation.

1.2 SUBMITTALS

- A. Product Data: For each product indicated.
- B. Temporary Roofing: Include Product Data and description of temporary roofing system. If temporary roof will remain in place, submit surface preparation requirements needed to receive permanent roof, and submit a letter from roofing membrane manufacturer stating acceptance of the temporary membrane, and that its inclusion will not adversely affect the roofing system's resistance to fire and wind or its FMG rating.
- C. Photographs or Videotape: Show existing conditions of adjoining construction and site improvements, including exterior and interior finish surfaces, that might be misconstrued as having been damaged by reroofing operations. Submit before Work begins.

1.3 QUALITY ASSURANCE

- A. Installer Qualifications: Installer of new membrane roofing system.
- B. Preliminary Reroofing and Reroofing Conference: Conduct conference at Project site.

1.4 PROJECT CONDITIONS

- A. University will occupy portions of building immediately below reroofing area. Conduct reroofing so University's operations will not be disrupted. Provide University with not less than 72 hours' notice of activities that may affect University's operations.
 - 1. Coordinate work activities daily with University so University can place protective dust or water leakage covers over sensitive equipment or furnishings, shut down HVAC and fire-alarm or -detection equipment if needed, and evacuate occupants from below the work area if desired.
 - 2. Before working over structurally impaired areas of deck, notify University to evacuate occupants from below the affected area. Verify that occupants below the work area have been evacuated prior to proceeding with work over the impaired deck area.

- B. Protect building to be reroofed, adjacent buildings, walkways, site improvements, exterior plantings, and landscaping from damage or soiling from reroofing operations.
- C. Limit construction loads on roof to rooftop equipment wheel loads and uniformly distributed loads.
- D. A roof moisture survey of existing membrane roofing system is available for Contractor's reference.
- E. The results of an analysis of test cores from existing membrane roofing system are available for Contractor's reference.
- F. Weather Limitations: Proceed with reroofing preparation only when existing and forecasted weather conditions permit Work to proceed without water entering into existing roofing system or building.

PART 2 - PRODUCTS

2.1 RECOVER BOARDS

- A. Recover Board: Perlite Recover Board: ASTM C 728, perlite board; 1/2 inch thick.
- B. Fasteners: Factory-coated steel fasteners, No. 12 or 14, and metal or plastic plates listed in FMG's "Approval Guide," designed for fastening recover boards to deck.

2.2 AUXILIARY REROOFING MATERIALS

- A. General: Auxiliary reroofing preparation materials recommended by roofing system manufacturer for intended use and compatible with components of existing and new membrane roofing system.
- B. Base Sheet Fasteners: Capped head, factory-coated steel fasteners, listed in FMG's "Approval Guide."
- C. Metal Flashing Sheet: Metal flashing sheet is specified in Division 07 Section "Sheet Metal Flashing and Trim."

PART 3 - EXECUTION

3.1 PREPARATION

- A. Protect existing membrane roofing system that is indicated not to be reroofed.
- B. Coordinate with University to shut down air intake equipment in the vicinity of the Work. Cover air intake louvers before proceeding with reroofing work that could affect indoor air quality or activate smoke detectors in the ductwork.

- C. Maintain roof drains in functioning condition to ensure roof drainage at end of each workday. Prevent debris from entering or blocking roof drains and conductors. Use roof-drain plugs specifically designed for this purpose. Remove roof-drain plugs at end of each workday, when no work is taking place, or when rain is forecast.
- D. Verify that rooftop utilities and service piping have been shut off before commencing Work.

3.2 ROOF TEAR-OFF

- A. General: Notify University each day of extent of roof tear-off proposed and obtain authorization to proceed.
- B. Remove aggregate ballast from roofing membrane. Store aggregate ballast for reuse.
- C. Remove loose aggregate from aggregate-surfaced built-up bituminous roofing with a hand held blower or hand broom.
- D. Remove pavers from roofing membrane. Store and protect pavers for reuse. Discard cracked pavers.
- E. Partial Roof Tear-Off: Remove existing roofing membrane and other membrane roofing system components down to the deck.
 - 1. Bitumen and felts that are firmly bonded to concrete decks are permitted to remain if felts are dry. Remove unadhered bitumen and felts and wet felts and replace them.
 - 2. Remove excess asphalt from steel deck. A maximum of 15 lb/100 sq. ft. of asphalt is permitted to remain on steel decks.
 - 3. Remove fasteners from deck.

3.3 DECK PREPARATION

- A. Inspect deck after partial tear-off of membrane roofing system.
 - 1. Verify that concrete substrate is visibly dry and free of moisture. Test for capillary moisture by plastic sheet method according to ASTM D 4263 or by pouring 1 pint of hot roofing asphalt on deck at start of each day's work and at start of each roof area or plane. Do not proceed with roofing work if moisture condenses under the plastic sheet or if asphalt test sample foams or can be easily and cleanly stripped after cooling.
- B. If broken or loose fasteners that secure deck panels to one another or to structure are observed, or if deck appears or feels inadequately attached, immediately notify Architect. Do not proceed with installation until directed by Architect.
- C. If deck surface is not suitable for receiving new roofing, or if structural integrity of deck is suspect, immediately notify Architect. Do not proceed with installation until directed by Architect.
- D. Remove temporary roofing membrane before installing new roofing membrane.

3.4 ROOF RE-COVER PREPARATION

- A. Remove blisters, ridges, buckles, and other substrate irregularities from existing roofing membrane that inhibit new recover boards from conforming to substrate.
 - 1. Broom clean existing substrate.
 - 2. Coordinate with University's inspector to schedule times for tests and inspections before proceeding with installation of recover boards.
 - 3. Verify that existing substrate is dry before proceeding with installation of recover boards. Spot check substrates with an electrical capacitance moisture-detection meter.
 - 4. Remove materials that are wet or damp. Removal will be paid for by adjusting the Contract Sum according to unit prices included in the Contract Documents.
 - 5. Provide additional uplift securement for existing roofing system with new screws and plates applied to each roof zone to comply with Factory Mutual I-90 uplift recommendations.

3.5 EXISTING BASE FLASHINGS

- A. Remove existing base flashings around parapets, curbs, walls, and penetrations.
 - 1. Clean substrates of contaminants such as asphalt, sheet materials, dirt, and debris. It is possible that these materials contain asbestos; contractor is responsible for reviewing the hazardous materials report applicable to this project and taking appropriate precautions.
- B. Do not damage metal counterflashings that are to remain. Replace metal counterflashings damaged during removal with counterflashings of same metal, weight or thickness, and finish.
- C. Remove existing parapet sheathing and replace with new exterior fire-retardant-treated plywood sheathing, 19/32 inch thick. If parapet framing has deteriorated, immediately notify Architect.

3.6 RECOVER BOARD INSTALLATION

- A. Install recover boards over roof insulation with long joints in continuous straight lines and end joints staggered between rows. Loosely butt recover boards together and fasten to deck.

3.7 DISPOSAL

- A. Collect and place demolished materials in containers. Promptly dispose of demolished materials. Do not allow demolished materials to accumulate on-site. Remove all demolished materials from the site daily.
- B. Transport demolished materials off University's property and legally dispose of them.

END OF SECTION 07 01 50.19