

## **SECTION 075091 - PREPARATION FOR RE-ROOFING**

### **PART 1 - GENERAL**

#### **1.1 RELATED DOCUMENTS**

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

#### **1.2 SUMMARY**

- A. Section Includes:
  - 1. Roof tear-off.
  - 2. Removal of base flashings.
- B. Related Sections:
  - 1. Division 7 Section "Built-up Asphalt Roofing."
  - 2. Division 7 Section "Fully Adhered EPDM"

#### **1.3 MATERIALS OWNERSHIP**

- A. Except for items or materials indicated to be reused, reinstalled, or otherwise indicated to remain Owner's property, demolished materials shall become Contractor's property and shall be removed from Project site.

#### **1.4 DEFINITIONS**

- A. Roofing Terminology: Refer to ASTM D 1079 and glossary in NRCA's "The NRCA Roofing and Waterproofing Manual" for definition of terms related to roofing work in this Section.
- B. Existing Membrane Roofing Systems: The existing membrane roof systems are believed to consist of the following materials:

Roof Area A – 4-ply aggregate surfaced asphalt built-up roof membrane over 1" perlite over 2" isocyanurate insulation over wood deck

Roof Area B and C – 2-ply smooth surfaced modified asphalt roll roofing over copper panel over red rosin slip sheet over wood deck.

Roof Areas D, E, F, H, I, J, and K – 4-ply aggregate surfaced asphalt built-up roof membrane over ½" high density wood fiberboard insulation over 3 ½" phenolic insulation over a wood deck.

Roof Area G – 4-ply aggregate surfaced asphalt built-up roof over 1" perlite insulation over wood deck.

Existing EPDM Roof Areas – Fully adhered 60 mil EPDM membrane over approximately 3" (varies) of wood fiberboard insulation over wood deck.

- C. Contractor shall verify all existing systems and conditions for bidding.
- D. Roof Tear-Off: Removal of existing membrane roofing system from deck.
- E. Remove: Detach items from existing construction and legally dispose of them off-site unless indicated to be removed and reinstalled.

- F. Existing to Remain: Existing items of construction that are not indicated to be removed.

#### 1.5 ACTION SUBMITTALS

- A. Product Data: For each type of product indicated.

#### 1.6 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For Installer.
- B. 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.

#### 1.7 QUALITY ASSURANCE

- A. Regulatory Requirements: Comply with governing EPA notification regulations before beginning membrane roofing removal. Comply with hauling and disposal regulations of authorities having jurisdiction.
- B. Reroofing Conference: Conduct conference at Project site.
  - 1. Meet with Owner; Architect; Owner's insurer if applicable; testing and inspecting agency representative; roofing system manufacturer's representative; deck Installer; roofing Installer including project manager, superintendent, and foreman; and installers whose work interfaces with or affects reroofing including installers of roof accessories and roof-mounted equipment.
  - 2. Review methods and procedures related to roofing system tear-off and replacement including, but not limited to, the following:
    - a. Reroofing preparation, including membrane roofing system manufacturer's written instructions.
    - b. Temporary protection requirements for existing roofing system that is to remain during and after installation.
    - c. Existing roof drainage during each stage of reroofing, and roof drain plugging and plug removal requirements.
    - d. Construction schedule and availability of materials, Installer's personnel, equipment, and facilities needed to make progress and avoid delays.
    - e. Existing deck removal procedures and Owner notifications.
    - f. Condition and acceptance of existing roof deck and base flashing substrate for reuse.
    - g. Structural loading limitations of deck during reroofing.
    - h. Base flashings, special roofing details, drainage, penetrations, equipment curbs, and condition of other construction that will affect reroofing.
    - i. HVAC shutdown and sealing of air intakes.
    - j. Governing regulations and requirements for insurance and certificates if applicable.
    - k. Existing conditions that may require notification of Architect before proceeding.

#### 1.8 PROJECT CONDITIONS

- A. Protect building to be reroofed, adjacent buildings, walkways, site improvements, exterior plantings, and landscaping from damage or soiling from reroofing operations.
- B. Maintain access to existing walkways, corridors, and other adjacent occupied or used facilities.

- C. Weather Limitations: Proceed with reroofing preparation only when existing and forecasted weather conditions permit Work to proceed without water entering existing roofing system or building.
- D. Hazardous Materials: Asbestos-containing materials will be encountered in the Work.
  - 1. Some base flashing materials and aluminum coatings contain asbestos in the existing built-up roof areas. See material testing information.
  - 2. If additional materials suspected of containing hazardous materials are encountered, do not disturb; immediately notify Architect and Owner. Other hazardous materials will possibly be removed by Owner under a separate contract.

## PART 2 - PRODUCTS

### 2.1 TEMPORARY ROOFING MATERIALS

- A. Sheathing Paper: Red-rosin type, minimum 3 lb/100 sq. ft.
- B. Base Sheet: ASTM D 4601, Type II, nonperforated, asphalt-impregnated and -coated, glass-fiber sheet.
- C. Glass-Fiber Felts: ASTM D 2178, Type IV, asphalt-impregnated, glass-fiber felt.
- D. Asphalt Primer: ASTM D 41.
- E. Roofing Asphalt: ASTM D 312, Type III or IV.
- F. EPDM sheet

### 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.

## PART 3 - EXECUTION

### 3.1 PREPARATION

- A. Protect any existing roofing system that is indicated not to be reroofed.
  - 1. Loosely lay 1-inch-minimum thick, molded expanded polystyrene (MEPS) insulation over the roofing membrane in areas indicated. Loosely lay 15/32-inch plywood or OSB panels over MEPS. Extend MEPS past edges of plywood or OSB panels a minimum of 1 inch.
  - 2. Limit traffic and material storage to areas of existing roofing membrane that have been protected.
  - 3. Maintain temporary protection and leave in place until replacement roofing has been completed. Remove temporary protection on completion of reroofing.
- B. Coordinate with Owner 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. During removal operations, have sufficient and suitable materials on-site to facilitate rapid installation of temporary protection in the event of unexpected rain.
- D. Maintain roof drainage in functioning condition to ensure roof drainage at end of each workday.
- E. Verify that rooftop utilities and service piping have been shut off before beginning the Work.

### 3.2 ROOF TEAR-OFF

- A. General: Notify Owner each day of extent of roof tear-off proposed for that day and obtain authorization to proceed.
- B. Roof Tear-Off: Remove existing roofing membrane and other membrane roofing system components down to the deck.
  - 1. Remove cover boards, roof insulation, and substrate boards.
  - 2. Remove wood blocking, curbs, and nailers.
  - 3. Remove fasteners from deck.

### 3.3 DECK PREPARATION

- A. Inspect deck after tear-off of membrane roofing system.
- B. Verify that the substrate is visibly dry and free of moisture and no deterioration is evident.
- C. 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.
- D. 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.
- E. Provide additional deck securement as indicated on Drawings.

### 3.4 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.
- B. Replace metal counterflashings as indicated on Drawings with counterflashings specified in Division 7 Section "Sheet Metal Flashing and Trim."
- C. Replace parapet sheathing as indicated on Drawings with sheathing specified in Division 6 Section "Sheathing."
- D. Replace parapet framing, wood blocking, curbs, and nailers as indicated on Drawings with material specified in Division 6 Section "Miscellaneous Carpentry."

### 3.5 DISPOSAL

- A. Collect demolished materials and place in containers. Promptly dispose of demolished materials. Do not allow demolished materials to accumulate on-site.
  - 1. Storage or sale of demolished items or materials on-site is not permitted.

- B. Transport and legally dispose of demolished materials off Owner's property.

END OF SECTION 07591

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