

SECTION 07720

ROOF SPECIALTIES AND ACCESSORIES

PART 1 - GENERAL

1.01 DESCRIPTION

- A. Work Included: Install new pre-manufactured, equipment supports and pipe supports where indicated on the drawings and roof plans.

1.02 RELATED SECTIONS

- A. Section 07513 – Modified Bitumen Cap Sheet Built-Up Roofing.

1.03 SUBMITTALS

- A. As provided in Section 01330 and 01340 and as required by the consultant.
- B. Product Data: For each type of product indicated, include construction details, materials, dimensions of individual components and profiles, and finishes.
- C. Shot Drawings: Show fabrication and installation details. Indicate dimensions, weights, loadings, required clearances, method of field assembly, and components. Include plans, elevations, sections, details, and attachments to other Work.
- D. Coordination Drawings: Roof plans drawn to scale and coordinating penetrations and roof-mounted items. Show the following:
 - 1. Size and location of roof accessories specified in this Section.
 - 2. Method of attaching roof accessories to roof or building structure.
 - 3. Other roof-mounted items including mechanical and electrical equipment, ductwork, piping, and conduit supports.

1.04 QUALITY ASSURANCE

- A. As provided in Section 01450.
- B. Qualifications of Manufacturer.

1. Products used in the work included in this section shall be produced by manufacturers regularly engaged in the manufacturing of similar items and with a history of successful production and product installations.

C. Qualifications of Installers

1. Installers shall be thoroughly trained and experienced in the necessary crafts. Installers shall be made familiar with any unique requirements specified for proper performance of the work in this section.

D. Rejection

1. In the acceptance or rejection of work under this section, no allowance will be made for lack of skill or specification understanding on the part of the workmen. It shall be incumbent upon the contractor to use adequate numbers of skilled installers and to instruct them in the requirements of the project specifications as well as maintaining a set of the project specifications and drawings on the roof at all times.

E. Replacement

1. In the event inadequate or improper installation is determined, contractor shall make all repairs and replacements required to render the installation compliant with the project specifications. Replacements, due to improper performance shall be at the sole cost of the contractor.

1.05 SEQUENCING AND SCHEDULING

- A. Time delivery and installation of work to avoid delaying other trades whose work is dependent on or affected by the work, and comply with storage and protection requirements.
- B. Coordinate location of similar supports to allow proper alignment of other work.

1.06 REFERENCES

- A. American Society for Testing and Materials (ASTM).
 1. A526 - Specification for Steel Sheet, zinc-coated (galvanized) by the hot-dip process, commercial quality.

1.07 PROJECT CONDITIONS

A. Field Measurements

1. Take field measurements to determine the quantity, configuration and dimensions of the items indicated. Contractor shall be responsible for the accurate fit and finish of the work. Locations shown on drawings are representative and do not reflect actual quantities or locations required and as to be engineered by the manufacturer.

PART 2 - PRODUCTS

2.01 EQUIPMENT SUPPORTS

- A. Pre-manufactured supports constructed from 1-7/8" x 1-7/8" x 16 gauge channel steel with rectangular support bases and 2" x 2" x 1/8" steel angle supports and galvanized metal grating as manufactured by PHP Systems/Design. Base type shall be designed to be fastened thru the deck and injected with sealant as provided by the manufacturer.

2.02 PIPE SUPPORTS

- A. Pre-manufactured assembly with molded plastic/rubber base, 1- inches by 16 inches; 2 inch threaded rods and accessory bar, Model PP-10" with bar as manufactured by PHP Systems/Design.

2.03 PIPE HANGERS

- A. Pre-manufactured assembly with rectangular molded plastic/rubber base and 1-7/8" x 1-7/8" x 16 gauge channel steel. Use device type hanger for insulated piping and roller hangers for support of steel pipes, such as models "Type PS 1-2", "Type PSE 2-2" or "Type PSE-Custom" as manufactured by PHP Systems/Design.

2.04 A. C. UNIT SUPPORTS

- A. Pre-manufactured assembly with rectangular molded plastic/rubber base and 1-7/8" x 1-7/8" x 16 gauge channel steel and steel angle supports. Assembly to use threaded rod to connect supports, such as "Type RTU-20" as manufactured by PHP Systems/Design.

2.05 DUCT SUPPORTS

- A. Pre-manufactured assembly with rectangular molded plastic/rubber base and 1-7/8" x 1-7/8" x 16 gauge channel steel and steel angle supports. Assembly to use threaded rod to connect supports, such as "Type PHP-D" and "Type "PHP-D Enclosed "as

manufactured by PHP Systems/Design.

2.06 PROTECTION PADS

- A. Custom cut sections of modified bitumen cap sheet as specified in Section 07513, Article 2.04.

2.06 FABRICATION

- A. Work to dimensions shown or accepted on the shop drawings, using proven details of fabrication and support.
- B. Form all work true to line and level, with accurate angles and surfaces and with sharp straight edges.
- C. Ease the exposed edges to a radius of approximately (1/16") unless otherwise shown on the detail drawings.
- D. Weld corners and seams continuously, complying with American Welding Society recommendations. At exposed connections, grind exposed welds smooth and flush, match and blend with adjoining surfaces.

PART 3 - EXECUTION

3.01 INSPECTION

- A. Examine the areas and conditions under which work of this section will be installed. Correct conditions detrimental to the proper and timely completion of the work. Do not proceed until unsatisfactory conditions have been corrected.

3.02 WORKMANSHIP

- A. Form all metal fabrications accurately and to the required dimensions and shapes.
- B. All exposed edges of sheet metal shall be folded back on concealed surfaces or ground smooth.
- C. Weld connections which are not to be left as exposed joints, but cannot be shop welded because of shipping size limitations. Grind exposed welds smooth and flush.

3.03 INSTALLATION

- A. General

1. Install each item in accordance with the manufacturer's instructions, approved shop drawings and specified requirements. Furnish each item with required fasteners.

B. Equipment Supports, Duct Supports and A. C. Unit Supports

1. Move rooftop equipment as required for installation of new supports.
2. Locate and install protection pads under pre-molded support bases. Fully adhere protection pad to roof system.
3. Set new equipment, duct or a/c support in place and reset existing equipment, secure equipment to new base with appropriate fastener. Base shall be secured with adhesive approved by support manufacturer and as approved by the roofing membrane manufacturer.

C. Piping Supports and Pipe Hangers

1. Furnish and install new pre-manufactured pipe supports.
2. Locate and install protection pads under pre-molded support bases. Fully adhere protection pad to roof system.
3. Space new supports in accordance with manufacturers recommendations, not exceeding ten feet on center maximum and within two feet in any change of direction or plane.
4. Set new equipment support in place and reset existing piping. Secure piping to new support with clamp as provided by support manufacturer. Base shall be secured with adhesive approved by support manufacturer and as approved by the roofing membrane manufacturer.

D. New Protection Pad Installation.

1. Install new protection pads around the perimeter of the roof hatch other roof top mounted mechanical equipment.

3.04 COORDINATION

- A. Coordinate all work closely with the City.**

3.05 CLEAN UP

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- A. Work area is to be maintained in a neat and orderly manner.
- B. At completion of all sheet metal work, remove all construction debris and equipment from job site.

END OF SECTION