

CONSTRUCTION SPECIFICATION

558. ROOF RUNOFF MANAGEMENT

1. SCOPE

This specification covers the fabrication, installation, and construction of roof runoff management facilities.

2. MATERIALS

ROOF GUTTERS AND DOWNSPOUTS shall be made of aluminum, galvanized steel, wood, or plastic, as required in Section 4. Aluminum gutters and downspouts shall have a nominal thickness of at least 0.07 and 0.05 cm, (0.027 and 0.020 in), respectively. Galvanized steel gutters and downspouts shall be at least 28 gage. Wood shall be clear and free of knots. Wood gutters shall be redwood, cedar, cypress, or pressure treated. Plastics shall contain ultraviolet stabilizers. Dissimilar metals shall not be in contact with each other.

GUTTER SUPPORTS shall have sufficient strength to withstand anticipated water, snow, and ice loads. Unless otherwise set forth in Section 4 or the drawings, supports shall comply with the following spacing requirements. They shall have a maximum spacing of 120 cm (48 in) for galvanized steel and 60 cm (24 in) for aluminum or plastic. Wood gutters shall be mounted on fascia boards using furring blocks that are a maximum of 60 cm (24 in) apart. Downspouts shall be securely fastened at the top and bottom with intermediate supports that are a maximum of 3 m (10 ft) apart.

DRAINFILL for driplines shall meet the requirements of PADOT Publication 408, Section 703, Type A, Coarse Aggregate, and the gradation shown on the drawings.

DRAINPIPE for subsurface drains shall meet the industry standards for the type of pipe required in Section 4 or on the drawings.

CHANNEL LININGS shall be adequately durable and erosion resistant to last the life of the other practice components, or as otherwise required in Section 4.

3. INSTALLATION

Gutters and driplines shall be installed at the locations and slopes shown on the plans. Gutter supports shall have a maximum spacing of 120 cm (48 in) for galvanized steel and 60 cm (24 in) for aluminum or plastic. Wood gutters shall be mounted on fascia boards using furring blocks that are a maximum of 60 cm (24 in) apart. Gutters shall be hung so that the outer edge of the gutter is below the projection of the roof line as shown on the drawings. Joints shall be made watertight with the use of mastics or by welding. Gutters shall be installed at the slope shown on the drawings or as set forth in Section 4.

Downspouts shall be securely fastened at the top and bottom, with intermediate supports that are a maximum of 3 m (10 ft) apart.

Flexible conduits in driplines shall be installed in accordance with ASTM F449.

Drainfill shall be placed in the dripline trench in such a manner so as not to be contaminated with adjacent soil. If required on the drawings or in Section 4, filter cloth may be used to envelop the bottom and sides of the drainfill.

Outlets for facilities shall be as shown on the drawings. Where downspouts empty directly onto the ground surface, there shall be an elbow to direct the flow away from the building, and splash blocks or other protection to prevent erosion. Downspouts shall not be outletted into foundation drains.

4. ADDITIONAL CONDITIONS WHICH APPLY TO THIS PROJECT ARE: