

4714.1105 CONTROLLED-FLOW ROOF DRAINAGE.

UPC section 1105.1 is amended to read as follows:

1105.1 Application. The controlled-flow roof drainage system shall be sized on the basis of controlled flow and storage of the stormwater on the roof, provided the design is based on a minimum of 4 inches per hour and the following conditions are met:

- (1) The water from a 25-year-frequency storm shall not be stored on the roof for more than 24 hours.
- (2) During the storm, the water depth on the roof shall not exceed the depths specified in Table 1105.1(1).
- (3) Not less than two drains shall be installed in roof areas of 10,000 square feet (929 m²) or less, and not less than one additional drain shall be installed for each additional 10,000 square feet (929 m²) or less of roof area.
- (4) Each roof drain shall have a precalibrated, fixed (nonadjustable), and proportional weir (notched) in a standing water collar inside the strainer. No mechanical devices or valves shall be allowed.
- (5) Pipe sizing shall be based on the precalibrated rate of flow (gpm) (L/s) of the precalibrated weir for the maximum allowable water depth, and Tables 1103.1 and 1103.2.
- (6) The height of stones or other granular material above the waterproofed surface shall not be considered in water depth measurement, and the roof surface in the vicinity of the drain shall not be recessed to create a reservoir.
- (7) Roof design, where controlled-flow roof drainage is used, shall be such that the design roof live load is not less than 40 lb/ft².
- (8) Scuppers shall be provided in parapet walls. The distance of scupper bottoms above the roof level at the drains shall not exceed the maximum distances specified in Table 1105.1(2).
- (9) Scupper openings shall be not less than 4 inches (102 mm) high and have a width equal to the circumference of the roof drain required for the area served, sized in accordance with Table 1103.1.
- (10) Flashings shall extend above the top of the scuppers.
- (11) At a wall or parapet, 45-degree (0.79 rad) cants shall be installed.
- (12) Separate storm and sanitary drainage systems shall be provided within the building.
- (13) Calculations for the roof drainage system shall be submitted, along with the plans, to the Authority Having Jurisdiction for approval.

UPC Table 1105.1(1) and Table 1105.1(2) are not amended.

Statutory Authority: *MS s 326B.43*

History: *45 SR 1007*

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