

4715.2780 CONTROL FLOW STORM WATER DRAINAGE FOR DEAD LEVEL ROOFS.

Subpart 1. **General requirements.** In lieu of sizing the storm drainage system from conventional methods as previously described in this chapter, the roof drainage may be sized on the controlled flow and storage of the storm water on the roof provided the following conditions are met:

A. the roof drainage system shall be sized on the basis of a rate of rainfall of four inches per hour;

B. the roof is dead level and 45 degree cants, properly flashed, are installed at any well or parapet;

C. the roof design is based on a minimum of 40 pounds per square foot live load, with overflow line of roof edge, coping, or relieving scupper in parapet wall at least four inches in height above the roof and at no greater height than will provide a safety factor of two for the structural design live load;

D. roof drainage pipe sizing may be designed on the basis of controlled flow sizing tables provided by manufacturers of roof drains approved by the administrative authority or by the tables in subparts 2 and 3;

E. the plans or specifications for the storm drainage system shall indicate the method used as the basis for the design.

Subp. 2. Size of vertical leaders.

Size of Leader Inches	Maximum Projected Roof Area in Square Feet
3	7,500
4	15,000
5	21,000

Roof areas of more than 15,000 square feet shall contain two or more roof drains.

Subp. 3. Size of horizontal storm drains.

Diameter of Drain Inches	Maximum Projected Roof Area in Square Feet 1/4 in. Slope
3	3,500
4	8,200

5	11,750
6	18,500
8	40,000
10	75,850
12	118,000
15	214,000

Statutory Authority: *MS s 326.37 to 326.45; 326B.43 to 326B.49*

History: *L 2007 c 140 art 6 s 15; art 13 s 4*

Published Electronically: *May 14, 2012*