(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 147kg/m^2 (30 lbs./ft.^{2}) to provide a safety factor exceeding 73kg/m^2 (15 lbs./ft.^{2}), represented by the depth of water stored on the roof as indicated in Table 11-4.

(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 11-5.

(9) Scupper openings shall be not less than 100mm (4 in.) high and have a width equal to the circumference of the roof drain required for the area served, sized by Table 11-1.

(10) Flashings shall extend above the top of the scuppers.

(11) At any wall or parapet, 0.8 radian (45 degrees) 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.

1108.2 Setback Roofs. Drains on setback roofs shall be permitted to be connected to the controlled-flow drainage systems, provided:

(1) The setback is designed for storing water;

(2) The square footage of the setback drainage area is converted as outlined in Section 1108.0 to L/min, and the storm-water pipe sizes in the controlled-flow system are based on the sum of the loads; and

(3) The branch from each of the roof drains that are not provided with controlled flow shall be sized in accordance with Table 11-1.

TABLE 11-4
Controlled-Flow Maximum Roof Water Depth

Roof Rise* mm	Max Water Depth at Drain mm
Flat	75
50	100
100	125
150	150

*Vertical measurement from the roof surface at the drain to the highest point of the roof surface served by the drain, ignoring any local depression immediately adjacent to the drain.
SI: 1mm = 0.04 in.

TABLE 11-5
Distance of Scupper Bottoms Above Roof

Roof Rise* mm	Maximum Distance of Scupper Bottom Above Roof Level at Drains mm
Flat	75
50	100
100	125
150	150

*Vertical measurement from the roof surface at the drain to the highest point of the roof surface served by the drain, ignoring any local depression immediately adjacent to the drain.
SI: 1mm = 0.04 in.

1109.0 Testing.

1109.1 Testing Required. New building storm drainage systems and parts of existing systems that have been altered, extended, or repaired shall be tested as described in Section 1109.2 to disclose leaks and defects.

1109.2 Methods of Testing Storm Drainage Systems. Except for outside leaders and perforated or open-jointed drain tile, the piping of storm drain systems shall be tested upon completion of the rough piping installation by water or air (except plastic pipe shall not be tested with air), and proved tight. The Authority Having Jurisdiction shall be permitted to require the removal of any cleanout plugs to ascertain whether the pressure has reached all parts of the system. One of the following test methods shall be used:

1109.2.1 Water Test. After piping has been installed, the water test shall be applied to the drainage system, either to the entire system or to sections. If the test is applied to the entire system, all openings in the piping shall be tightly closed, except for the highest opening; and the system shall be filled with water to the point of overflow. If the system is tested in sections, each opening shall be tightly plugged except for the highest opening of the section under test, and each section shall be filled with water; but no section shall be tested with less than a 3m (10 ft.) head of water. In testing successive sections, not less than the upper 3m (10 ft.) of the next preceding section shall be tested so that no joint of pipe in the building (except the uppermost 3m (10 ft.) of a roof drainage system, which shall be filled with water to the flood level of the uppermost roof drain), shall have been submitted to a test of less than a 3m (10 ft.) head of water. The water shall be kept in the system or in the portion under test