

**1101.6 Building Subdrains.** Building subdrains located below the public sewer level shall discharge into a sump or receiving tank, the contents of which shall be automatically lifted and discharged into the drainage system as required for building sumps.

**1101.7 Areaway Drains.** Open subsurface space adjacent to a building, serving as an entrance to the basement or cellar of a building, shall be provided with a drain or drains. Such areaway drains shall be not less than 50mm (2 in.) in diameter for areaways not exceeding 9.3m<sup>2</sup> (100 ft.<sup>2</sup>) in area, and shall be discharged in the manner provided for subsoil drains not serving continuously flowing springs or groundwater (see Section 1101.5.2). Areaway drains for areaways exceeding 9.3m<sup>2</sup> (100 ft.<sup>2</sup>) shall be sized according to Table 11-2 and drain in accordance with Section 1102.3.

**1101.8 Window Areaway Drains.** Window areaways not exceeding 0.9m<sup>2</sup> (10 ft.<sup>2</sup>) in area shall be permitted to discharge to the subsoil drains through a 50mm (2 in.) pipe. However, window areaways exceeding 0.9m<sup>2</sup> (10 ft.<sup>2</sup>) in area shall be handled in the manner provided for entrance areaways (see Section 1101.7).

**1101.9 Filling Stations and Motor Vehicle Washing Establishments.** Public filling stations and motor vehicle washing establishments shall have the paved area sloped toward sumps or gratings within the property lines. Curbs not less than 15cm (6 in.) high shall be placed where required to direct water to gratings or sumps.

**1101.10 Paved Areas.** Where the occupant creates surface water drainage, the sumps, gratings, or floor drains shall be piped to a storm drain or an approved water course.

#### **1101.11 Roof Drainage.**

**1101.11.1 Primary Roof Drainage.** The roof areas of a building shall be drained by roof drains or gutters. The location and sizing of drains and gutters shall be coordinated with the structural design and pitch of the roof. Unless otherwise required by the Authority Having Jurisdiction, roof drains, gutters, vertical conductors or leaders, and horizontal storm drains for primary drainage shall be sized, based on a storm duration of 60 minutes and a 100 year return period.

**1101.11.2 Secondary drainage.** Secondary (emergency) roof drainage shall be provided by one of the methods specified in Section 1101.11.2.1 or 1101.11.2.2.

**1101.11.2.1 Roof Scuppers or Open Side.** Secondary roof drainage shall be provided by an open-sided roof or scuppers where the roof perimeter construction extends above

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the roof in such a manner that water will be entrapped. An open-sided roof or scuppers shall be sized to prevent the depth of ponding water from exceeding that for which the roof was designed as determined by Section 1101.11.1. 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.

**1101.11.2.2 Secondary Roof Drain.** Secondary roof drains shall be provided. The secondary roof drains shall be located not less than 50mm (2 in.) above the roof surface. The maximum height of the roof drains shall be a height to prevent the depth of ponding water from exceeding that for which the roof was designed as determined by Section 1101.11.1. The secondary roof drains shall connect to a piping system conforming to Section 1101.11.2.2.1 or 1101.11.2.2.2.

#### **1101.11.2.2.1 Separate Piping System.**

The secondary roof drainage system shall be a separate system of piping, independent of the primary roof drainage system. The discharge shall be above grade, in a location observable by the building occupants or maintenance personnel. Secondary roof drain systems shall be sized in accordance with Section 1101.11.1 based on the rainfall rate for which the primary system is sized.

**1101.11.2.2.2 Combined System.** The secondary roof drains shall connect to the vertical piping of the primary storm drainage conductor downstream of any horizontal offset below the roof. The primary storm drainage system shall connect to the building storm water that connects to an underground public storm sewer. The combined secondary and primary roof drain systems shall be sized in accordance with Section 1106.0, based on double the rainfall rate for the local area.

#### **1101.11.3 Siphonic Roof Drainage System.**

Siphonic roof drainage systems shall be designed in accordance with ASPE 45 or equivalent International Standard(s) approved by the Authority Having Jurisdiction.

#### **1101.12 Cleanouts.**

**1101.12.1** Cleanouts for building storm drains shall comply with the requirements of Section 719.0 of this code.