

Informal Interpretation Report Number 8254



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Section 1108

Question:

Is it the intent of 1108.1 to require each roof drain have it's own secondary emergency overflow drain or may a roof with multiple roof drains have only one emergency drain/scupper if the roof is designed to transport the rainwater from one section of the roof to another?

Answer

The answer is no, however, it is important to consider all code requirements, as described in the commentary below.

Commentary:

Section 1108.3 of the FBC, Plumbing further clarifies Section 1108.1 by indicating the secondary scupper must prevent an accumulated depth of water which would exceed the designed rain load for the roof, roof section or bay.

A function of the secondary drainage element is to serve as an alerting system. Should water be observed coming from the secondary scupper, this indicates a primary drain blockage has likely occurred and corrective action would be required. In the project described with a single secondary scupper, a primary drain blockage may go unobserved.

Section 1503.4.2.1 of the FBC, Building indicates overflow scuppers shall be placed as close as practical to the primary drainage element. This is because the primary roof drains are at the low point of the roof or roof section. So, it follows that this is the best location for the secondary scupper. As the project is described, this requirement may have been met, if as indicated some means to allow water movement from one section to another has been designed.

Section 1611 of the FBC, Building provides guidance that each portion of a roof shall be designed to sustain the load of rainwater that will accumulate on it if the primary drainage system for that portion is blocked plus the uniform load caused by water that rises above the inlet of the secondary drainage system at its design flow. The project information provided does not include this essential information.

Roof drainage design is complicated and made more so by requirements not being found in a single location in the Florida Building Code (FBC), instead provisions are found in Chapter 15 and 16 (FBC, B) and Chapter 11 (FBC, P) as well as in ASCE 7. As a result, one must look to all relevant code sections to adequately address roof drainage requirements. Additionally, multi-discipline collaboration between the Architect, Structural Engineer, Mechanical/Plumbing Engineer, the plumbing contractor and the roofing contractor is also necessary.

Notice:

The Building Officials Association of Florida, in cooperation with the Florida Building Commission, the Florida Department of Business & Professional Regulation, ICC, and industry and professional experts offer this interpretation of the Florida Building Code in the interest of consistency in their application statewide. This interpretation is informal, non-binding and subject to acceptance and approval by the local building official.