



CODE TOPICS

2020 FBC 7th ED, SECTION 454.2, RESIDENTIAL POOLS

POOL EQUIPMENT IN FLOOD ZONE

TOPIC BACKGROUND

As you may know, the 2017 FBC 6th Ed adopted a revised ASCE 24 Sect. 9.6 that included pool equipment in the Chapter 7 table referring to installations above flood elevation. This quickly became an issue when compliance meant installing the pool equipment elevated several feet above the pool and or above the adjacent grades. Much discussion ensued about the function of pool pumps several feet above the pool and the requirement of Building Codes for access stairs and guard rails when equipment is set more than 30" above grade. Building Departments began allowing equipment to be raised 30" above grade as a reasonable effort to get above flood waters. During the past code cycle and with the arguments against protecting pool equipment against flood waters, the 2020 FBC 7th Ed now contains an exemption from the elevation requirements, but only to the "extent practical."

WHAT THE CODE [WILL] SAYS

The 2020 FBC 7th Ed, Section 1612.42 will contain the following exemption from the ASCE 24 section 9.6 requirements for pool equipment:

By the way, since the 2017 FBC, most Building Departments have been allowing 30" above grade as the "extend practical" for raising equipment.

1612.4.2 Modification of ASCE 24 9.6 Pools. Modify Section 9.6 in ASCE 24 by adding an exception as follows:

9.6 Pools. In-ground and above-ground pools shall be designed to withstand all flood-related loads and load combinations. Mechanical equipment for pools such as pumps, heating systems and filtering systems, and their associated electrical systems, shall comply with Chapter 7.

Exception: Equipment for pools, spas and water features shall be permitted below the elevation required in Table 7-1, provided it is elevated to the extent practical, is anchored to prevent flotation and resist flood forces, and is supplied by branch circuits that have ground-fault circuit-interrupter protection. (SP8094-R1)

REQUIRED AT PLAN REVIEW

The FLOOD ZONE, EXISTING GRADES and DECK ELEVATION should be clearly identified on the plan, survey or site plan. When the pool electric panel is to be placed below flood, there must be information that the home breaker feeding the pool equipment is a GFCI breaker from the existing house panel, presumably above flood if new construction. A homeowner should not be expected to raise a previously permitted non-conforming panel. At the time of plan review there should be details for the elevation of the pool equipment by wood platform, concrete or something suspended from the building. The latter is likely only acceptable with new construction where the house Engineer of Record can detail the connection to the building.

REQUIRED DURING INSPECTION

When the pool panel is below flood elevation, this will require interior access to the residence to view the GFCI feeding the pool panel. The equipment will need to be anchored according to manufacturer recommendations.

Disclaimer: This is offered as summary and guidance on code requirements. This does not authorize a code violation.

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