



# CODE TOPICS

2020 FBC 7<sup>th</sup> ED, SECTION 454.2, RESIDENTIAL POOLS

## POOL FLOOR SLOPES AND SAFETY ROPE & FLOATS

### TOPIC BACKGROUND

You have likely never installed a safety rope and float line in a residential pool like you see in commercial pools. However, there are conditions that require this safety feature. Also, while there is great flexibility in residential pool floor slopes, there are limits.

### WHAT THE CODE SAYS

ANSI/APSP/ICC-5 2011 contains standards for floor slopes and the requirements for the safety rope. Section 5.5.1 requires the shallow end to not exceed 1:7 slope for the first 6 ft from the pool end wall. The interpretation from the writing committee states that the pool steps can occupy part of that 6 ft. Meaning at least 2 ft or 3 ft in front of the steps must be flat or a maximum shallow slope of 1:7. The steepest slope to the deep end of the pool is 1:3. If you create a slope break from 1:7 to something steeper like the maximum 1:3 in a water depth less than 4'-6", the rope and float assembly is required 1 ft to 2ft on the shallow side of the slope change.

**17.2 Rope and float.** In pools where the point of first slope change (see Figure 5, Point D) occurs in water depths less than 4 ft 6 in. (1372 mm), a rope and float assembly shall be installed across the width of the pool generally parallel to, and at a minimum of 1 ft (305 mm) and a maximum of 2 ft (61 cm) on the shallow side of the change in floor slope.

However, the writing committee has stated that if the pool floor has a slow rolling transition from the shallow slope to the steeper slope the Rope and Float is not required.

### REQUIRED AT PLAN REVIEW

Your plans must call out the minimum and maximum water depths and any more detailed depths you plan to provide your customer. Keep in mind where you place your drains as they may define a steeper than allowed. For example, the plan review will look for a minimum 6 ft from an area a couple feet in front of the steps to the drains, on a 3 ft to 5 ft deep pools.

### REQUIRED DURING INSPECTION

At the deck or final inspection, the pool floor is examined for an obvious slope break that might require the safety line, or any unusual features to the pool shell that might violate these criteria.