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BBRS OFFICIAL INTERPRETATION NO. 2016_01

Date: July 18, 2016

Subject: Barriers and guards around public- and semi-public swimming pools in MA

Background/Discussion:

Swimming pools can potentially pose many hazards to the public. In order to minimize risk of injury to the public, the Building Code (780 CMR) requires that certain standards be met with regard to: design standards for the pool and surrounding areas; prevention of unauthorized access; and protection against falls. These topics are currently addressed as follows:

780 CMR 51: *International Residential Code (IRC) 2009 – Appendix G* (as amended). Among other things, this appendix required all in-ground swimming pools to be designed and constructed in accordance with ANSI/NSPI-5 (2003), and above-ground swimming pools to be designed and constructed in accordance with ANSI/NSPI-4 (1999). In addition to design and construction standards, Section AG105 addresses concerns related to barriers around all forms of swimming pools and spas. According to the commentary on the 2009 IRC, “the installation of an effective barrier can help reduce the number of children who die or are injured as the result of open access to a swimming pool, spa, or hot tub” (Source: 2009 IRC Code and Commentary, Volume 2 [2010]). Finally, Section AG108 addresses entrapment protection for swimming pool and spa suction outlets. The requirements of Appendix G apply to all newly constructed, and substantially altered, swimming pools used as an accessory to any one- or two-family home or townhouse less than three stories, regardless if it is public, private, or semi-public.

780 CMR: *International Building Code (IBC) 2009 – Section 3109* (as amended). IBC Section 3109 addresses the specific requirements for swimming pool enclosures and safety devices. Similar to the IRC requirements above, the intent of the requirements in section 3109 is “... to provide for the use of swimming pools as well as to limit or delay unauthorized access to swimming pools by small children, particularly those five years old and younger” (Source: 2009 IBC Code and Commentary, Volume 2 [2010]). This entire section provides specific design requirements for barriers around all public and private swimming pools, except for those regulated under the IRC.

780 CMR: *International Building Code (IBC) 2009 – Section 1013* (as amended). Section 1013 of the IBC is entitled Guards, which serve “to minimize the possibility of occupants accidentally falling to the surface below. A guard is required only where the difference in elevation between the higher walking surface and the surface below is greater than 30 inches (762 mm)” (Source: 2009 IBC Code and Commentary, Volume 1 [2010]).

Section 1013.2 requires all required guards to be 42 inches, or greater, above the adjacent walking surfaces, adjacent fixed seating, or the line connecting the leading edges of the treads of any impacted stairway; except in certain circumstances listed in the code. The ICC explains that the 42 inch minimum guard height is because that height “puts the top of the guard above the center of gravity of the average adult” (Source: 2009 IBC Code and Commentary, Volume 1 [2010]). Similar to the height requirements of Section 1013.2, the opening limitations of Section 1013.3 “prevent nearly all children 1 year in age or older from falling through the guard” (Source: 2009 IBC Code and Commentary, Volume 1 [2010]). Similar requirements are included in the 2009 IRC, Section R312, with the main difference that one- and two-family dwellings and townhouses less than 3 stories, require guards to be no less than 36 inches (914 mm).

G.L c. 140, § 206. Similar to the barrier requirements in the IBC and IRC, this General Law requires all outdoor public and semipublic inground swimming pools be enclosed with a fence, meeting certain height and opening restrictions, and must be secured at ground level. In addition, the General Law requires that “every public and semipublic outdoor inground swimming pool shall be inspected annually by the inspector of buildings of each city and town in which said pool is located.”

The purpose of this official interpretation is to provide clarity to some recent confusion regarding application of barrier and guard requirements as applicable to public and semipublic swimming pools.

QUESTION 1: Regarding fences surrounding inground swimming pools located at apartment and/or condominium complexes, do installers need to comply with the regulatory, or the statutory, barrier height requirements?

ANSWER 1: An outdoor swimming pool serving an apartment and/or condominium complex is considered a “semipublic outdoor inground pool,” and must comply with the statutory barrier height requirement. This is because G.L c. 140, § 206 defines “semipublic outdoor inground pool” as “a swimming or wading pool on the same premises of, or used in connection with, a hotel, motel, trailer court, apartment house, country club, youth club, school, camp, or similar establishment where the primary purpose of the establishment is not the operation of the swimming facilities.”

In the case of a condominium complex where each unit owner has exclusive control of his/her own individual inground swimming pool, which is not shared with any of the occupants of the other units, the regulatory requirements would apply.

QUESTION 2: Is a pool installed above the first story considered an “inground swimming pool” for the purposes of compliance with G.L c. 140, § 206?

ANSWER 2: No. It is clear from the language in the statute that the intent of the statute is to prevent unauthorized individuals (primarily children less than eight years of age) from accessing “inground” swimming pools, which might otherwise lead to serious injury or death. This is further substantiated by the requirement that the barrier be “firmly secured at ground level.” The BBRS interprets that the structure, upon which the swimming pool is installed, serves as the barrier from unauthorized access, and that the applicable requirements to prevent injury due to falls is through the *guard* requirements in sections 1013 and R312 of the IBC and IRC, respectively.

QUESTION 3: Does the code in any way restrict the material permitted to be used for construction a *guard*?

ANSWER 3: Yes. Section 1013.1 of the IBC requires that *guards* be capable of withstanding the forces prescribed in Section 1607.7, in terms of both strength and attachment. When considering the use of glazing as the *guard* material, one must also look at Section 1013.1.1, which requires that the glazed portion be in compliance with Section 2407, as well.

QUESTION 4: G.L c. 140, § 206 requires that “every public and semipublic outdoor inground swimming pool shall be inspected annually by the inspector of building of each city and town in which said pool is located,” but this is not listed in Table 110 of the MA Amended IBC; is the municipal inspector of buildings/building commissioner still responsible to perform these periodic inspections?

ANSWER 4: Yes. Although this is not listed in Table 110 of 780 CMR, the local Inspector of Buildings / Building Commissioner is not absolved of his / her responsibility to enforcing all applicable statutes of the Commonwealth. Please note that this statute does not limit the inspection to compliance with the barrier requirements, but it also applies to the mandatory minimum safety equipment (at least one life ring and a rescue hook) also required by the statute.

QUESTION 5: Is it true that the only approved fences that are permitted under the Statute, for use as barriers, are stockade and chain-link?

ANSWER 5: Yes. The statute says that “... any board or stockade fence or structure shall be at least five feet in height, but if over five feet in height, the fence shall be chain link.” The BBRS interprets this provision as stating the combination of any structure(s) (building, permanent stone wall, or fence) must be at least five feet in height. If the structure is a fence, in contrast to a Building or stone wall, then fence must be chain link.