

# Private Outdoor Swimming Pool Barrier Enclosure Requirements

City of Tempe  
Community Development Department  
Development Services Division  
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## A. General

In accordance with the International Building Code, Section 3109.1, or the International Residential Code, Appendix G, every premise having a private outdoor swimming pool in excess of eighteen inches in depth shall be enclosed by a barrier. The barrier may be the walls of a building, a fence or a combination of both as described below.

Swimming Pool: Any structure intended for swimming or recreational bathing that contains water over 18 inches (430 mm) deep. This includes in-ground, above ground, and on-ground swimming pools, hot tubs, and spas."

## B. Prerequisites to issuance of a building permit

A building permit shall not be issued for any swimming pool, spa or hot tub unless the plans for such pool provide for an enclosure as required by this article.

## C. Barrier Enclosure Height and Clearances

The top of the barrier shall be at least 5 feet (1525 mm) above grade measured on the side of the barrier that faces away from the swimming pool. The maximum vertical clearance between grade and the bottom of the barrier shall be 2 inches (51mm) measured on the side of the barrier that faces away from the swimming pool. Where the top of the pool structure is above grade, such as an aboveground pool, the barrier may be at ground level, such as the pool structure, or mounted on the top of the pool structure. Where the barrier is mounted on top of the pool structure, the maximum vertical clearance between the top of the pool structure and the bottom of the barrier shall be 4 inches (102 mm).

Openings: Openings in the barrier shall not allow passage of a 4-inch-diameter (102 mm) sphere.

Solid Barrier Surfaces: Solid barriers which do not have openings shall not contain indentations or protrusions except for normal construction tolerances and tooled masonry joints.

Closely Spaced Horizontal Members: Where the barrier is composed of horizontal and vertical members and the distance between the tops of the horizontal members is less than 45 inches (1143 mm), the horizontal members shall be located on the swimming pool side of the fence. Spacing between vertical members shall not be greater than 1-3/4 inches (44 mm) in width. Where there are decorative cutouts within vertical members, spacing within the cutouts shall not be greater than 1-3/4 inches (44 mm) in width.

Widely Spaced Horizontal Members: Where the barrier is composed of horizontal and vertical members and the distance between the tops of the horizontal members is 45 inches (1143 mm) or more, spacing between vertical members shall not exceed 4 inches (102 mm). Where there are decorative cutouts within vertical members, spacing within the cutouts shall not be greater than 1-3/4 inches (44 mm) in width.

Chain Link Dimensions: Mesh size for chain link fences shall be be greater than 1-3/4 inches (44 mm).

Diagonal Members: Where the barrier is composed of diagonal members, the maximum opening formed by the diagonal members shall be be greater than 1-3/4 inches (44 mm)

## D. Gates

Access doors or gates shall comply with the requirements of the International Building Code, Sections 3109.4.1.1 through 3109.4.1.6, or the International Residential Code, Appendix G, AG 105.2, Items 1 through 7, and shall be equipped to accommodate a locking device. Pedestrian access gates shall open outward away from the pool and shall be self-closing and have a self-latching device. Doors or gates other than pedestrian access gates shall have a self-latching device. Release mechanisms shall be in accordance with Sections 1008.1.9 and 1109.13. Where the release mechanism of the self-latching device is located less than 54 inches (1372 mm) from the bottom of the door or gate, the release mechanism shall be located on the pool side of the door or gate at least 5 inches (76 mm) below the top of the door or gate, and the door or gate and barrier shall have no opening greater than ½ inch (12.7 mm) within 24 inches (610 mm) of the release mechanism. When access doors or gates are secured by a padlock or similar device which requires a key, electric opener or integral combination, the latch may be at any height.

#### **E. Dwelling Wall as a Barrier**

Where a wall of a dwelling serves as part of the barrier, one of the following shall be met:

1. All doors with direct access to the pool through that wall shall meet Section 3109.4.1.7 or be equipped with an alarm which produces an audible warning when the door and its screen, if present, are opened. The alarm shall be listed in accordance with UL 2017. In dwellings not required to be Accessible units, Type A units or Type B units, the deactivation switch shall be located 54 inches (1372 mm) or more above the threshold of the door. In dwellings required to be Accessible units, Type A units or Type B units, the deactivation switch shall be located not higher than 54 inches (1372 mm) and not less than 48 inches (1219 mm) above the threshold of the door.
2. Emergency escape or rescue openings from sleeping rooms with access to the swimming pool or other contained body of water which meets the definition of a swimming pool shall be equipped with a latching device not less than fifty-four (54) (1372mm) inches above finished floor. Emergency escape or rescue openings shall be operational from the inside as required by the building codes. All other openable dwelling unit windows with access to the swimming pool, hot tub or spa shall be equipped with a keyed lock that prevents opening the window more than four (4) (102mm) inches, or a latching device located not less than fifty-four (54) (1372mm) inches above finished floor.
3. The pool shall be equipped with a power safety cover which complies with ASTM F 1346; or
4. Other means of protection, such as self-closing doors with self-latching devices, which are approved by the administrative authority, shall be accepted so long as the degree of protection afforded is not less than the protection afforded by Section 3109.4.1.8, Item 1 or 2.

#### **F. Indoor swimming pools**

Walls surrounding indoor swimming pools shall comply with Section 3109.4.1.8.

#### **G. Pool Structure as a Barrier**

When an above-ground pool structure is used as a barrier or where the barrier is mounted on top of the pool structure and the means of access is a ladder or steps, then:

1. The ladder or steps either shall be capable of being secured, locked or removed to prevent access; or
2. The ladder or steps shall be surrounded by a barrier which meets the requirements of International Building Code Sections 3109.4.1.1 through 3109.4.1.8 and International Residential Code Section AG105.2, Items 1-9.

When the ladder or steps are secured, locked or removed, any opening created shall not allow the passage of a 4-inch-diameter (102 mm) sphere.

#### **H. Prohibited Locations**

Barriers shall be located so as to prohibit permanent structures, equipment or similar objects from being used to climb the barriers.

#### **I. Responsibility for Maintenance**

It is hereby declared to be a public nuisance and dangerous to the public health, safety, and welfare to maintain an outdoor swimming pool, spa or hot tub in the city unless enclosed in accordance with the International Building Code, Section 3109, or the International Residential Code, Appendix G. It shall be the responsibility of both the property owner and the occupant of the premises to install and maintain the fences, locks, latches, alarms, and gates in good condition and proper working order when water is in the pool, and either or both may be deemed in violation of this chapter for failure to do so.

#### **J. Final Inspection of Enclosure**

No swimming pool, spa or hot tub shall be filled in whole or in part with water unless the pool enclosure has been installed in accordance with this article and approved by the development services manager or authorized representative.

#### **K. Overhead Electrical Conductors**

If there are existing overhead electrical service drop conductors, other overhead wiring, a service attachment point, service drop wiring or a service panel located within an area extending ten (10) feet measured horizontally from the inside walls of the proposed pool, then one or more of the above items may be required to be relocated prior to plastering unless they meet one of the exceptions of Section 680-8 of the National Electrical Code.

Unless included in the pool contract, this is usually the responsibility of the property owner.

**L. Construction Clean-Up**

The Tempe City Code also requires that the lot and all nearby premises including adjacent alleys be left clean upon completion of a construction project. This responsibility ultimately reverts back to the property owner if the contractor fails to remove the construction debris.

**M. Summary**

To avoid delay in the finishing of the pool, it is suggested that you make the necessary arrangements to insure that a complying enclosure is completed and the overhead service drop is relocated prior to the request for inspection for plastering of the pool.

Once approval of the pool and the enclosure is granted, the pool can be plastered and filled. You can verify that approval has been given by noting the inspector's signature on code 899 of the orange Inspection Record Card, which is required to be posted on the site.

We hope this information will be useful to you, and thank you for your cooperation.