

Swimming Pools, Hot Tubs & Spas

Permit and Construction Guidelines
Under the 2012 IRC



KEEP YOUR POOL SAFE

This publication is distributed by:

Douglas County Department of Zoning and Codes

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BUILDING CODE REQUIREMENTS

Douglas County Zoning & Code Requirements regarding the installation, use and maintenance of all swimming pools, hot tubs and spas for both private and public residential and commercial pools.



ALL CONSTRUCTION SHALL BE BUILT IN ACCORDANCE WITH STANDARDS SET FORTH IN THE 2012 International Code (IBC), the 2012 International Residential Code (IRC), 2012 International Fuel Gas Code (IFGC), 2012 International Mechanical Code (IMC), 2012 International Plumbing Code (IPC), and 2011 National Electrical Code (NEC).

No persons shall begin construction of a swimming pool nor substantially alter or reconstruct any swimming pool without having first submitted construction plans and specifications to the local building department for review and approval. No work shall be commenced until having first obtained the required permits for the pool, electrical work, mechanical work and fence or barrier protection as required by the regulations.

It is unlawful for any person to construct, maintain, use, possess or control any swimming pool not properly protected by a permanent fence or barrier in accordance with the regulations regardless of the date of construction. Any person who shall violate any provisions of the regulations may be subject to legal action as allowed by Douglas County Zoning and Codes.

DEFINITIONS

For the purpose of this section, certain terms, words and phrases are defined as follows:

- **ABOVEGROUND/ON-GROUND POOL.** See definition of "swimming pool."
- **APPROVED SAFETY POOL COVER** means a manually or power-operated safety pool cover that meets all of the performance standards of the American Society for Testing and Materials (ASTM), in compliance with Standard F 1346-91.
- **BARRIER** is a fence, wall, building wall or combination thereof that completely surrounds the swimming pool and obstructs access to the swimming pool.
- **ENCLOSURE** means a fence, wall or other barrier that isolates a swimming pool from access to the home.
- **EXIT ALARMS** means devices that make audible, continuous alarm sounds when any door or window that permits access from the residence to the pool area, that is without any intervening enclosure, is opened or is left ajar. Exit alarms may be battery operated or may be connected to the electrical wiring of the building.
- **GRADE** is the underlying surface, such as earth or a walking surface.
- **HOT TUB.** See definition of "spa, nonself-contained" and "spa, self-contained."
- **IN-GROUND POOL.** See definition of "swimming pool."
- **SEPARATION FENCE** is a barrier that separates all doors of a dwelling unit with direct access to a swimming pool from the swimming pool.
- **SPA, NONSELF-CONTAINED,** is a hydro-massage pool or tub for recreational or therapeutic use, not located in health-care facilities, designed for immersion of users and usually having a filter, heater and motor-driven blower. It may be installed indoors or outdoors, on the ground or on a supporting structure, or in the ground or in a supporting structure. A nonself-contained spa is intended for recreational bathing and contains water over 24 inches (610 mm) deep.
- **SPA, SELF-CONTAINED,** is a continuous-duty appliance in which all control, water-heating and water-circulating equipment is an integral part of the product, located entirely under the spa skirt. A self-contained spa is intended for recreational bathing and contains water over 24 inches (610 mm) deep.
- **SWIMMING POOL PUBLIC** means a swimming pool operated for the use of the general public with or without charge, or for the use of the members and guests of a private club. Public swimming pool does not include a swimming pool located on the grounds of a private single-family home.
- **SWIMMING POOL** or **POOL** means any structure intended for swimming or recreational bathing that contains water over 18 inches (457 mm) deep. "Swimming pool" includes in-ground, and above-ground structures and includes, but is not limited to, hot tubs, spas, portable spas and non-portable wading pools.

- **SWIMMING POOL, INDOOR**, is a swimming pool that is totally contained within a residential structure and surrounded on all four sides by walls of said structure.
- **SWIMMING POOL, OUTDOOR**, is any swimming pool that is not an indoor pool.

PERMITS

A building permit is required for installing all swimming pools, hot tubs and spas. An electrical permit is required for any electrical circuits or electrical work added for the pool and a gas or mechanical permit is required for pool heaters or other mechanical equipment for the pool. Above ground pools with a decking system **will** need a building permit for construction of the deck.

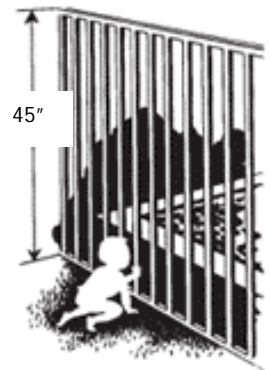
The property owner is responsible for ensuring the pool is properly protected by a fence or barrier meeting code requirements during construction and after completion and approval. In addition, any fence erected must be constructed with the “finished side” facing outward towards surrounding properties or rights-of-way.

The permit holder is responsible for assuring all inspections have been completed and approved including fence protection prior to using the pool. The following information is required to obtain a permit:

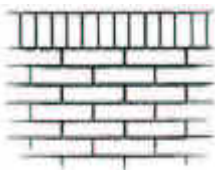
1. A site plan shall be submitted that accurately show the dimensions and construction of the pool to include walks, fence enclosures and proposed distances to lot lines.
2. The wall of a pool shall not encroach on any set back required by Douglas County Zoning & Codes. A wall of a swimming pool shall not be located less than three (3) feet from any side property line or five (5) feet from the rear property line.
3. All approved structures, installations and equipment, such as showers, dressing rooms, equipment houses or other buildings and structures, including plumbing, electrical and HVAC systems shall comply with all applicable requirements of the code and authority having jurisdiction.
4. The pool shall be equipped to be completely emptied of water, and such discharge water shall be disposed of in an approved by the Douglas County Health Department that will not create a nuisance to any adjoining property.

SWIMMING POOL BARRIER GUIDELINES

Outdoor private swimming pools, including an in-ground, aboveground or on-ground pools, hot tub or spa shall be provided with a barrier, **which completely surrounds and obstruct access**. Access gates for private pools shall be equipped to accommodate a locking device.



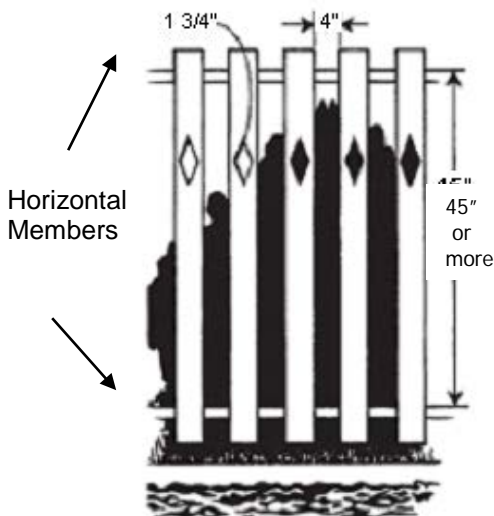
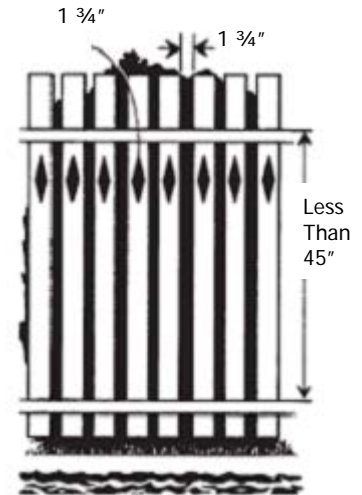
A successful pool barrier prevents a child from getting OVER, UNDER, or THROUGH and keeps the child from gaining access to the pool except when supervising adults are present. A young child can get over a pool barrier if the barrier is too low or if the barrier has handholds or footholds for a child to use when climbing. The top of a pool barrier must be at least **48 inches** above grade, measured on the side of the barrier which faces away from the swimming pool.



For a Solid Barrier: no indentations or protrusions shall be present, other than normal construction tolerances and masonry joints.

Barriers (Fences) Made Up of Closely Spaced Horizontal Members:

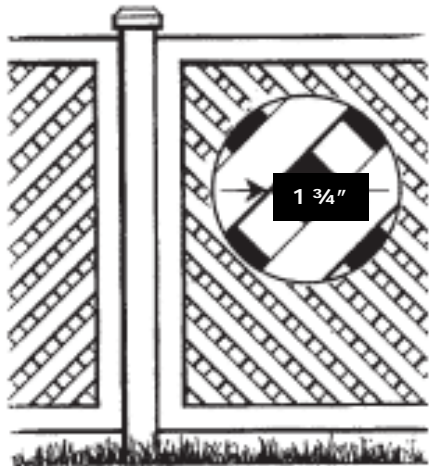
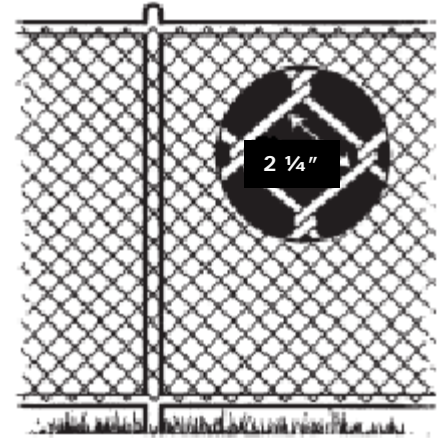
If the distance between the tops of the horizontal members is **less than** 45 inches, the horizontal members shall be on the swimming pool side of the fence. The spacing of the vertical members shall not exceed 1-3/4 inches. This size is based on the foot width of a young child and is intended to reduce the potential for a child to gain a foothold. If there are any decorative cutouts in the fence, the space within the cutouts shall not exceed 1-3/4".



If the distance between the tops of horizontal members is **more than** 45 inches, the horizontal members may be on the side of the fence facing away from the pool. The spacing between vertical members should not exceed 4 inches. This size is based on the head breadth and chest depth of a young child and is intended to prevent a child from passing through an opening. Again, if there are any decorative cutouts in the fence, the space within the cutouts shall not exceed 1-3/4 inches.

Barriers Made of Chain Link Fence

The mesh size shall not exceed 2-1/4 inches square unless slats, fastened at the top or bottom of the fence, are used to reduce mesh openings to no more than 1-3/4 inches.

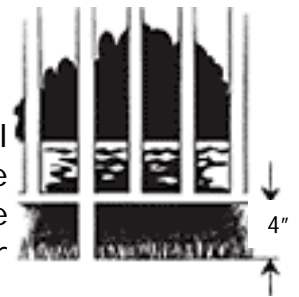


Barriers Fences Made Up of Diagonal Members (Latticework)

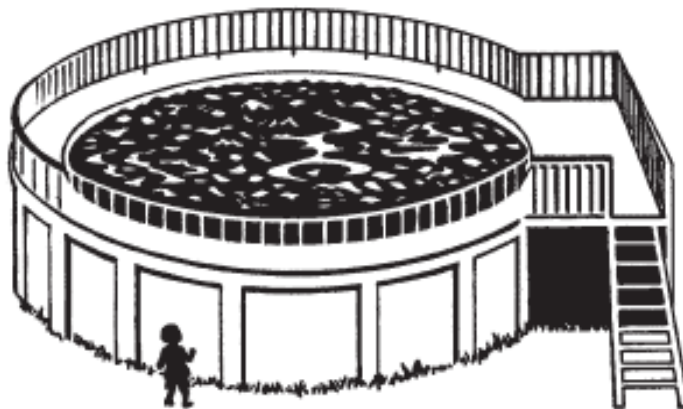
The maximum opening in the lattice should not exceed 1-3/4 inches.

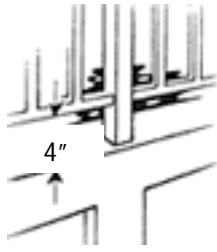
How to Prevent a Child from Getting UNDER a Pool Barrier

In Ground Pools: For any pool barrier, the maximum clearance at the bottom of the barrier should not exceed 4 inches above grade, when the measurement is done on the side of the barrier facing away from the pool.



For Above Ground Pools: The pool structure itself serves as a barrier or a barrier is mounted on top of the pool structure. Then, there are two possible ways to prevent young children from climbing up into an aboveground pool. The steps or ladder can be designed to be secured, locked or removed to prevent access, or the steps or ladder can be surrounded by a barrier such as those described above.



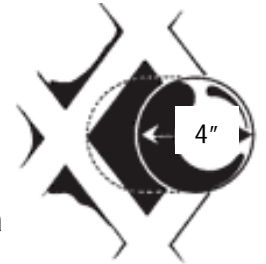


Aboveground Pool with Barrier on Top of Pool: If an aboveground pool has a barrier on the top of the pool, the maximum vertical clearance between the top of the pool and the bottom of the barrier should not exceed 4 inches.

HOW TO PREVENT A CHILD FROM GETTING THROUGH A POOL BARRIER

Preventing a child from getting through a pool barrier can be done by restricting the sizes of openings in a barrier and by using self-closing and self-latching gates.

To prevent a young child from getting through a fence or other barrier, all openings shall be small enough so that a 4 inch diameter sphere cannot pass through. This size is based on the head breadth and chest depth of a young child.



Gates: There are two kinds of gates, which might be found on residential property. Both can play a part in the design of a swimming pool barrier.

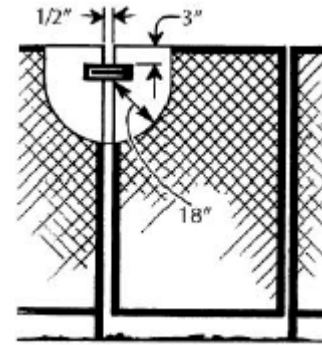


Pedestrian Gates: These are the gates people must walk through. Swimming pool barriers should be equipped with a gate or gates, which restrict access to the pool. A locking device must be included in the gate design. **Pedestrian gates must open outward and away from the pool and shall be self-closing and self-latching.**

If a gate is properly designed, even if the gate is not completely latched, a young child pushing on the gate in order to enter the pool area will at least close the gate and may actually engage the latch. Where the release mechanism of the self-latching device is **less than** 54 inches from the bottom of the gate, the release mechanism for the gate shall be located on the pool side of the gate and be at least 3 inches below the top of the gate on the side facing the pool. Placing the release mechanism at this height prevents a young child from reaching over the top of a gate and releasing the latch. Gate latches installed in this manner shall have no openings greater than ½ inch with 18 inches of the latch release mechanism. This prevents a young child from reaching through the gate and releasing the latch.

ALL OTHER GATES (Vehicle Entrances, ETC.)

Other gates must be equipped with self-latching devices. The self-latching devices must be installed as described for pedestrian gates.



WHEN THE HOUSE WALL FORMS PART OF THE POOL BARRIER



In many homes, doors open directly onto the pool area or onto a patio, which leads to the pool. In such cases, the wall of the house is an important part of the pool barrier, and passage through any doors in the house wall must be controlled by one of the following security measures.

1. **All doors, which give direct access to a swimming pool, must be equipped with an audible alarm that complies with UL 2017 Standards when the door and/or screen are opened.** The alarm must sound for 30 seconds or more immediately after the door is opened. The alarm must be capable of being heard throughout the house during normal household activity. (The alarm sound should be distinct from other sounds in the house, such as the telephone, doorbell and smoke alarm.) The alarm must have an automatic reset feature. The release mechanism shall be located at 54" or higher from the bottom of the gate. The release mechanism shall be located less than 54" from the bottom of the gate. Because adults will want to pass through house doors in the pool barrier without setting off the alarm, the alarm must have a switch that allows adults to temporarily deactivate the alarm for up to a maximum of 15 seconds. The deactivation switch could be a touchpad (keypad) or a manual switch, and must be located at least 54 inches above the threshold of the door covered by the alarm.
2. Pools equipped with a powered safety cover which complies with ASTM F1346 or
3. Other means of protection approved by the building official.

Hot Tubs/Spa Requirements

- Data sheets for calculated loads must be on site for inspection.
- Deck/pad must be constructed to carry the loads imposed in accordance with load calculations for the tub/spa.
- Safety glass is required in walls (windows, doors) and fences surrounding hot tubs and spas where the bottom edge of the glass is less than 60 inches above the walking surface and within 60 inches horizontally of the waters edge.
- Electrical connections, disconnections and hazardous separation dimensions shall be in accordance with the Chapter 41 of the International Residential Code or Article 680 of the National Electrical Code.

