Botetourt County Development Services

Typical Pool Detail

Effective Date 7/2012

BOTETOURT
COUNTY OF VIRGINIA

www.botetourtva.gov

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- The use of this package in lieu of submitted manufacturer or construction drawings applies only to above ground/storable, outdoor, residential pools only. Construction must be in strict conformance with the details contained herein. The use of this Typical Pool Detail does not relieve the permit holder of responsibility to follow all manufacturer requirements and other applicable codes. A copy of this Typical Pool Detail must be maintained on jobsite & available to the inspector throughout the inspection process.

When a Pool Permit is Required:

- In accordance with the Virginia Construction Code/Uniform Statewide Building Code (VUSBC) and the International Residential Code (hereafter referred to as IRC) appendix G 2003 , a swimming pool is a structure that requires a building permit; *Section 108.1 (1).* The only exception to this is when a swimming pool meets the following criteria - *Section 108.2 (7)*:

  Surface area of pool is not greater than 150 sq. feet, is less than 5000 gallons, and is less than 24" deep.

General Notes:

- Pools within the scope of this Guide are defined as any structure intended for swimming or recreational bathing that contains water 24” or deeper; aboveground and on-ground inclusive, meeting design & construction standard ANSI/NSPI-4-99
- This guide does not include in-ground pools, spas, whirlpools, hot tubs or indoor pools. It is also not intended for use with pools within distance of permanent structures, equipment or similar objects such as decks that can be used to climb the barriers as described herein.
- Deviations from this guide will require a plan submission.

General Notes Cont'd:

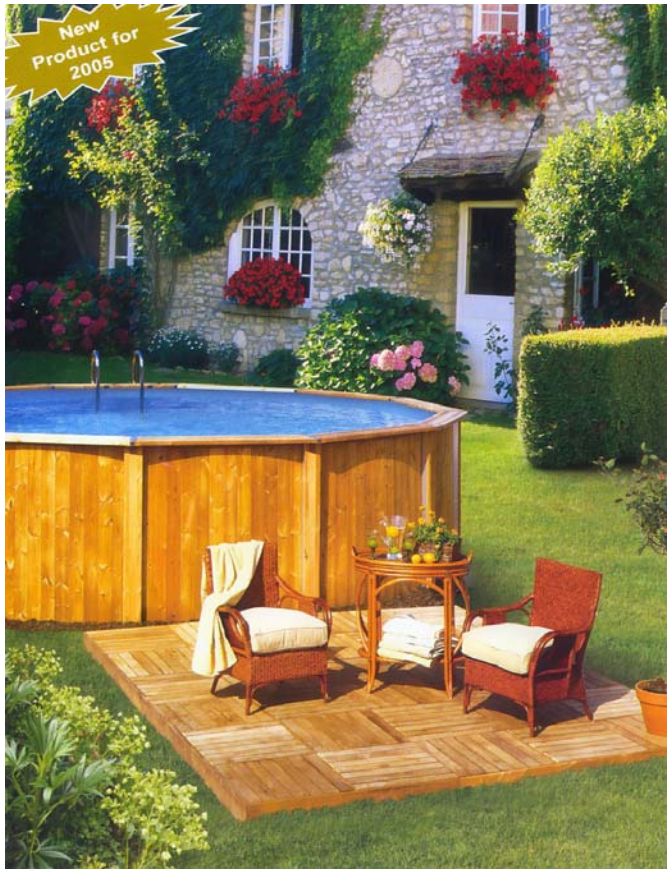
- The **unfilled** pool will only require a Final Building inspection if no electric installations are needed. Minimum inspections for pools with electrical components including pumps & dwellings that do not have the required minimum receptacles are as follows:
  - Rough Electric – verify wire runs & sizes, bonding, overcurrent protection, outlet boxes and disconnect locations/installations.
  - Final Electric – final device locations and terminations and confirm device types.
  - Final Building – barrier protections, access to pool and the installation of the pool itself.
- It is the responsibility of the permit holder to notify Building Inspections by phone (540)473-8248.
- Manufacture installation instructions must also be on job site at the time of inspection. In the case of conflict between the manufacturers installation instructions and this guide, the more stringent shall prevail.
- All pools within the scope of this guide must be placed upon level ground free of sharp rocks, vegetation, protrusions or other objects that can tear or otherwise damage the pool such as to cause a leak.

Definitions:

- **Swimming Pool**: Any structure intended for swimming or recreational bathing that contains water over 24” deep. For the specific purpose of the Typical Pool Detail this shall include aboveground & on-ground pools.
- **Storable Swimming or Wading Pool**: Those that are constructed on or above the ground and are capable of holding water with a maximum depth of 42”, or a pool with nonmetallic, molded polymeric walls or inflatable fabric walls regardless of dimension. Check manufacturer description for maximum fill height.
- **Barrier**: A fence, wall, building wall or combination thereof which completely surrounds the swimming pool and obstructs access to the swimming pool. Finished barrier height shall be no less than 48 inches from adjacent surfaces.
- **Approved**: Building Official approval based upon self conducted investigation and tests, or accepted tests or principles by nationally recognized organizations.

Barriers, House Wall:

This section addresses requirements where the house serves as a part of the barrier for the pool. One of the following three protections are required by the IRC:



Pool itself must comply with ANSI/NSPI-4-99

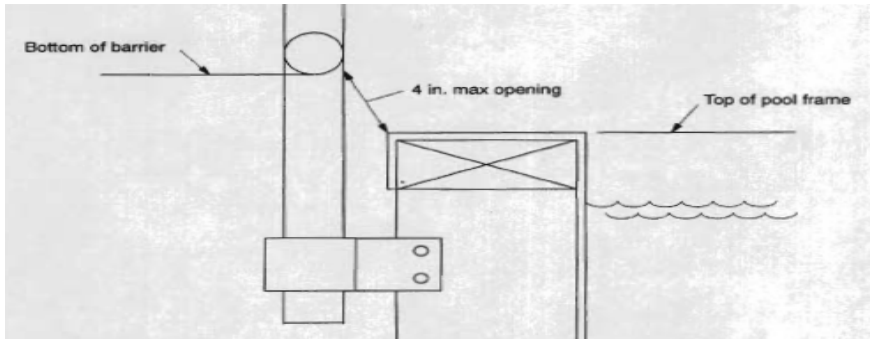
Pool CAN NOT be filled before temporary or permanent barrier is installed and approved by County Building Inspector!

1. Doors that directly access a pool must, when opened, audibly alarm continuously for 30 seconds and loudly enough to be heard throughout house during normal home activities. Temporary manual deactivation is allowed via a touchpad or switch located at least 54" above the doors' threshold, but cessation may not last more than 15 seconds.
2. Approved *(see definition)* other means of protection such as self closing & latching-device equipped doors. Check with the plans examiners prior to installation.
3. Pool must be equipped with powered safety cover complying with testing standard ASTM F1346

Barriers, Other Types:

All barriers must be 48” tall and resistant to climbing or a child’s passage through barrier in-fills as detailed in the following requirements. No barrier may be installed in a location that allows assistance from another permanent structure to defeat the security of the barrier by climbing.

If the pools walls are 48” or taller, the pool itself may be used as a barrier. If the walls are less than 48” the barrier may be attached to the pools’ frame as shown in the diagrams left and below. Attachment to the frame may not allow a gap larger than 4”. Separate barrier walls may be flush with grade or as much as 2” above grade.



If the pool itself is used as a barrier and access to the pool is only possible by a ladder or steps, the ladder or steps must either be lockable, securable or removable, or the ladder or steps themselves be barrier protected as well. Ladders that are individually protected by a barrier must have barriers that meet the barrier requirements detailed in this Guide. The base of these barriers may be flush with grade but can be no higher than 2” above grade.

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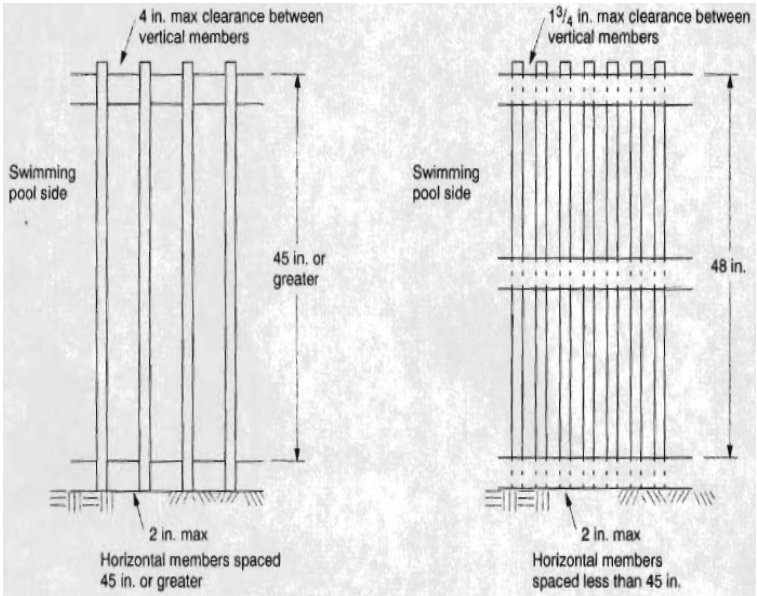
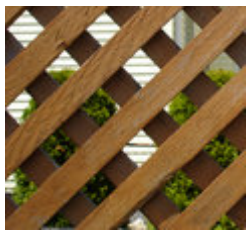


Above are examples of typical fences. The measurement minimums and maximums show in detail the distance in-fills (pickets) may be from one another when the horizontal members holding them are installed at different intervals. Note that the minimum barriers overall height of 48” must still be accomplished.

Here are examples of stone walls that are acceptable as barriers. The key to each is that the walls are not able to be climbed over because a foothold isn’t in evidence.



Lattice fencing may also be an approved barrier. An example of a lattice installation is shown here. Note that the largest opening allowed is 1 ¾” or less.

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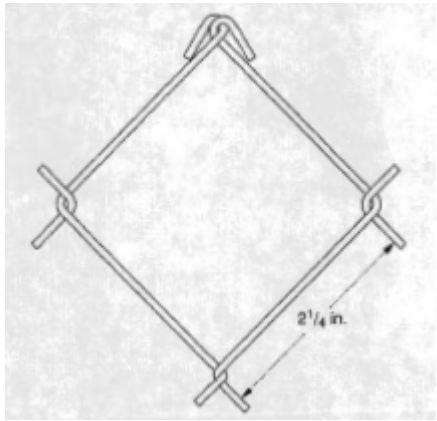
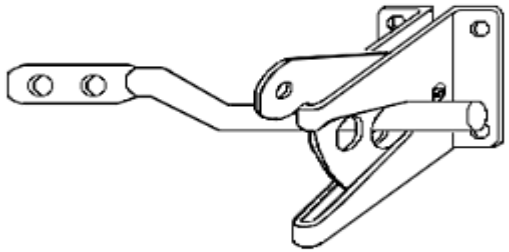


A chain link fence is acceptable so long as the links are not separated in excess of the diagram shown at left. A sample installation is shown at right.

A fence with slats fastened at the top & bottom may reduce the openings to a maximum of 1 ¾”.

Barriers, Other Types:

All gates into pools and their areas, whether for pedestrians or equipment, must meet all the listed requirements where openings, heights and climb-ability is concerned and have locking devices. In addition, pedestrian gates must open outward and away from the pool, be self closing and have self latching devices.



The gate shown at left is an example of a self closing pool gate with a latch in excess of 54" from the gates bottom. The IRC requires that **if the pools self latching mechanism is less than 54" from the bottom of the gate, the release and mechanisms for it must be:**

•on the inside of the pool gate at least 3" from the top of the gate AND,

•the gate and barrier cannot have any openings larger than ½" within 18" of the release.

Electrical Requirements:

Per the IRC Section 4102.1 Storable Swimming Pools (*see the definitions page*) must comply with section E4107 as detailed on this page.

New, wall attached illumination *(see below)* of the pool isn't required but if you do, the wall lights shown here for the pool must meet one of the following:

- Be GFCI protected if within 5'-10' from the pools inside wall and less than 5'above the water at the pools' maximum fill height.
- Same areas as written above, but if the light is more than 5' above the pools maximum fill height, GFCI protection isn't required.

Lights:

Lights that are listed specifically for storable pools must not have exposed metal parts. There are two types of lights acceptable for this application. These lights must meet one of the following:

- **Lights in/on the pool walls** – *15 volt or less lamps **must* be cord & plug type *have impact resistant polymeric lens, bodies & transformer enclosures *listed transformers (150 volts or less) shall have isolated windings with grounded metal barriers between the primary and secondary windings
- **Lights without a transformer** - *have impact resistant polymeric lens, bodies **can* be cord & plug type *GFCI with an open neutral protection integral with the assembly *the lamp is permanently connected to the GFCI *an underwater fixture must not be a shock hazard & yet operate without a GFCI device in the circuit & if removed from the water must not overheat.

Wall Plugs:

Placing a pool within 20' of an existing wall receptacle that is 6'6"or less above the floor, platform or grade level serving the pool will require changing it to a GFCI type plug. No plug should be within 10' unless the plug is as detailed below.

The cord for the pump must be 3 pronged.

A single, locking, grounded & GFCI protected plug for this and other pool related equipment must be located between 5'-10' of the pool (measured from the inside of the pool walls).

***Extension cords may not be used.**