



Swimming Pools & Spas

The applicant must submit a site plan showing:

- ❖ Location on lot
- ❖ Total lot coverage of proposed and existing structures
- ❖ Location of septic system (if applicable)
- ❖ Location of pool barrier (fence) including location of all points of access to the pool area (gates, doors from the house, etc.)

Review the information in our street file for your house if you need to find your septic system.

Provide a copy of the pools structural design (the one with the Connecticut engineers stamp in the lower right hand corner). This is available from your pool supplier.

This design must show that the pool complies with ANSI/APSP 5 2003 for In-ground pools, and APSP 3 1999 for spas.

Provide a complete pool enclosure design. The building department will no longer approve a pool permit application without a complete plan for the enclosure. This plan must bear the signature of the property owner, or a written statement from the owner, stating that the applicant is submitting plans and application as their agent.

Plans and manufacturers specifications for suction outlets must be provided showing compliance with ANSI/APSP 7-06.

Fill out and submit Zoning and Building Permit Applications.

Please note that Zoning, Health, Building and Wetlands Departments review all applications. Each department may take up to thirty (30) days to complete their review.

2006

Portable Swimming Pools - A Message from the State Building Inspector



STATE OF CONNECTICUT
Department of Public Safety
1111 Country Club Road
Middletown, Connecticut 06457

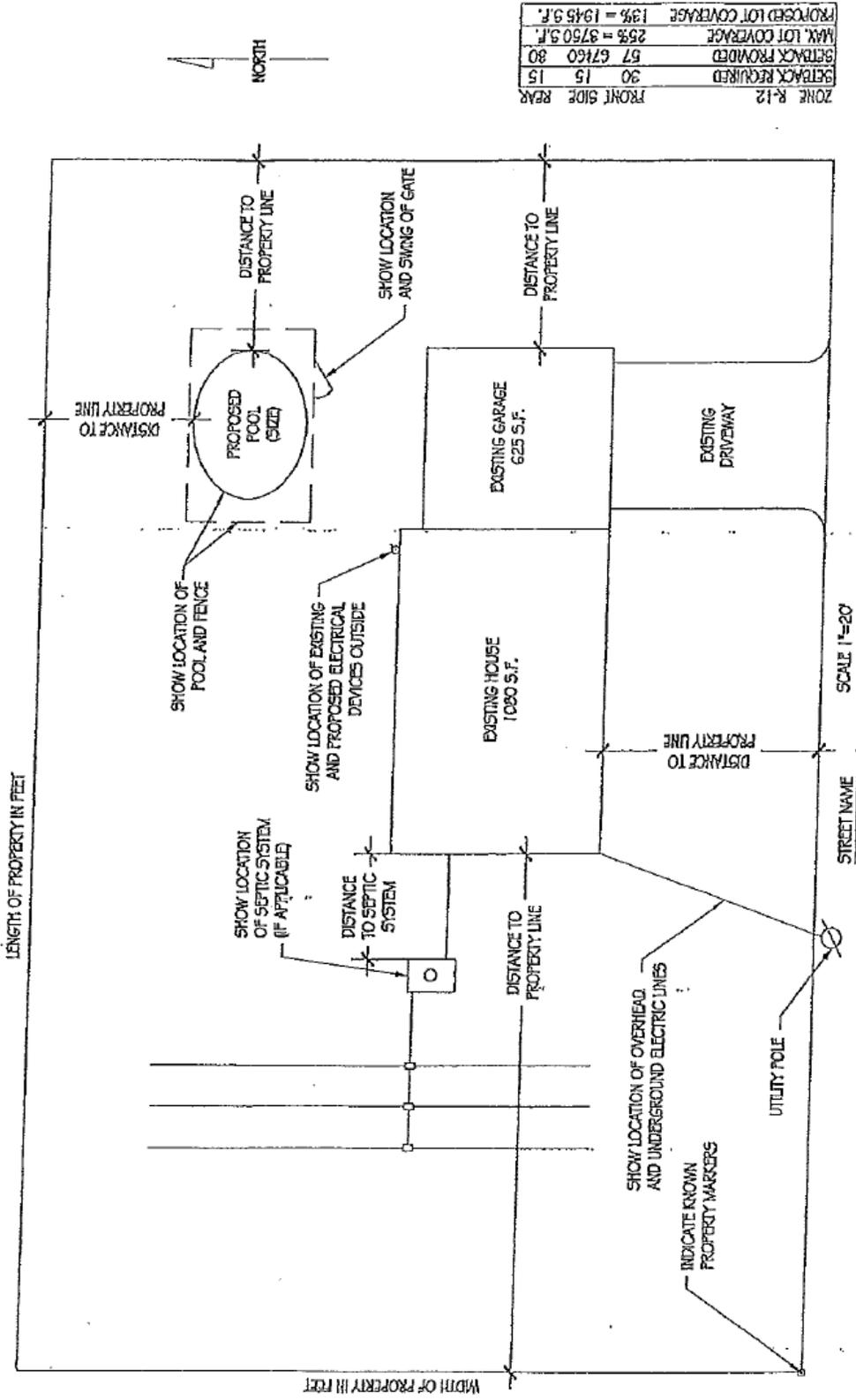
Contact:
860-685-8230
pio.dps@po.state.ct.us

FOR IMMEDIATE RELEASE

PORTABLE SWIMMING POOLS AND THE STATE BUILDING CODE

Now that the summer months are upon us, we're all trying to find a way to beat the heat. With the cost of energy these days, a reasonable solution seems to be a portable swimming pool for the kids to splash around in. A variety of retail establishments sell portable pools these days and they seem to be a cheap solution to providing comfort and recreation. Problem is, if the pool is capable of holding more than 24 inches of water, the State Building Code requires a permit and a code-compliant barrier around the pool. Since very few retail establishments advertise this, you may be in for a big surprise when your local building official tells you that the \$ 179 blow-up pool you just bought requires a barrier around it that also includes alarms on the doors to your home if the wall of the house is part of the barrier. Since the physical characteristics of a pool barrier differ greatly from the average back-yard fence, don't assume a fenced yard lets you off the hook. Every year a child drowns in a tragic accident involving an unprotected pool. Avoid a needless tragedy, make sure your pool is protected! For answers to your questions, consult your local building department or call the office of the State Building Inspector at (860) 685-8310.

Content Last Modified on 5/31/2007 10:14:02 AM



TYPICAL SITE PLAN DRAWN TO SCALE (INDICATE SCALE)
 FOR A POOL - PLEASE REFER TO BOTH THE BUILDING AND ZONING
 REGULATIONS WHEN CREATING THE SITE PLAN.

PRIVATE SWIMMING POOL AND SPA/HOT TUB INFORMATION PACKAGE



REVISIONS
March 11, 2005
May 30, 2006

APPENDIX G SWIMMING POOLS, SPAS AND HOT TUBS

SECTION AG101 GENERAL

AG101.1 General. The provisions of this appendix shall control the design and construction of swimming pools, spas and hot tubs installed in or on the lot of a one- and two-family dwelling.

SECTION AG102 DEFINITIONS

AG102.1 General. For the purposes of these requirements, the terms used shall be defined as follows and as set forth in Chapter 2.

ABOVE-GROUND/ON-GROUND POOL. See "Swimming pool"

BARRIER. A fence, wall, building wall or combination thereof which completely surrounds the swimming pool and obstructs access to the swimming pool.

HOT TUB. See "Swimming pool."

IN-GROUND POOL. See "Swimming pool."

RESIDENTIAL. That which is situated on the premises of a detached one- or two-family dwelling or a one-family townhouse not more than three stories in height.

SPA, NONPORTABLE. See "Swimming pool."

SPA, PORTABLE. A nonpermanent structure intended for recreational bathing, in which all controls, water-heating and water-circulating equipment are an integral part of the product.

SWIMMING POOL. Any structure intended for swimming or recreational bathing that contains water over 24 inches (610 mm) deep. This includes in-ground, aboveground and on-ground swimming pools, hot tubs and spas. [in Accordance with Section R105.2 prefabricated swimming pools that are less than 24 inches deep are exempt from permit requirements.](#)

SWIMMING POOL, INDOOR. A swimming pool which is totally contained within a structure and surrounded on all four sides by walls of said structure.

SWIMMING POOL, OUTDOOR. Any swimming pool which is not an indoor pool.

SECTION AG103 SWIMMING POOLS

AG103.1 In-ground pools. In-ground pools shall be designed and constructed in conformance with ANSI/NSPI-5 as listed in Section AG108.

AG103.2 Above-ground and on-ground pools. Aboveground and on-ground pools shall be designed and constructed in conformance with ANSI/NSPI-4 as listed in Section AG108.

SECTION AG104 SPAS AND HOT TUBS

AG104.1 Permanently installed spas and hot tubs. Permanently installed spas and hot tubs shall be designed and constructed in conformance with ANSI/NSPI-3 as listed in Section AG108.

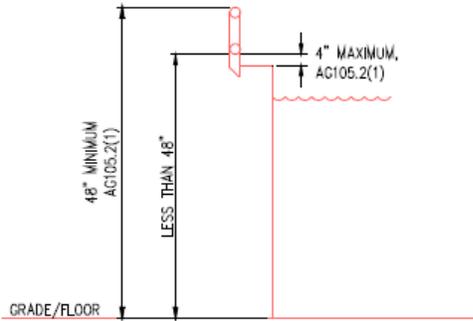
AG104.2 Portable spas and hot tubs. Portable spas and hot tubs shall be designed and constructed in conformance with ANSI/NSPI-6 as listed in Section AG108.

SECTION AG105 BARRIER REQUIREMENTS

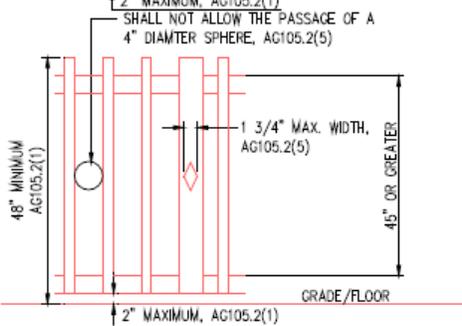
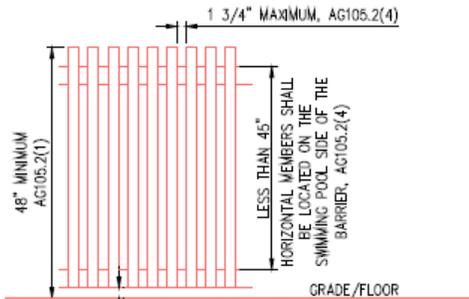
AG105.1 Application. The provisions of this chapter shall control the design of barriers for residential swimming pools, spas and hot tubs. These design controls are intended to provide protection against potential drownings and near-drownings by restricting access to swimming pools, spas and hot tubs.

AG105.2 Outdoor swimming pool. An outdoor swimming pool, including in-ground, aboveground or on-ground pool, hot tub or spas shall be provided with a barrier that shall comply with the following:

1. The top of the barrier shall be at least 48 inches 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 measured on the side of the barrier which 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 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.



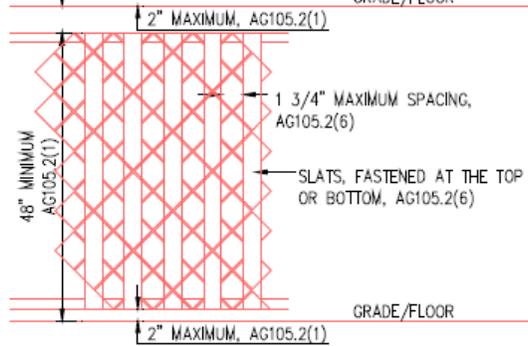
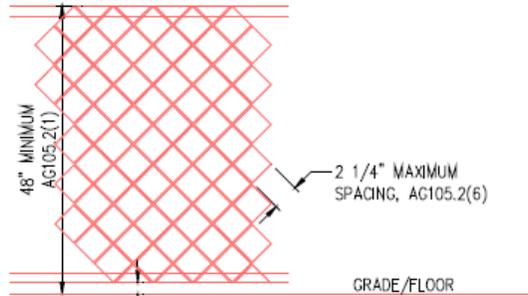
2. Openings in the barrier shall not allow passage of a 4-inch-diameter sphere.
3. Solid barriers that do not have openings, such as masonry or stone walls, shall not contain indentations or protrusions except for normal construction tolerances and tooled masonry joints.
4. Where the barrier is composed of horizontal and vertical members and the distance between the tops of the horizontal members is less than 45 inches, the horizontal members shall be located on the swimming pool side of the barrier. Spacing between vertical members shall not exceed 1 3/4 inches in width. Where there are decorative cutouts within vertical or horizontal members, spacing within the cutouts shall not exceed 1 3/4 inches in width.



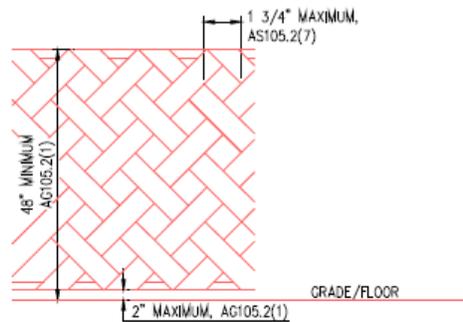
5. Where the barrier is composed of horizontal and vertical members and the distance between the tops of the horizontal members is 45 inches or more, spacing between vertical members shall not allow passage of a 4 inch diameter sphere. Where

there are decorative cutouts within vertical members, spacing within the cutouts shall not exceed 1 3/4 inches in width.

6. Maximum mesh size for chain link fences shall be a 2 1/4 inch square unless the fence is provided with slats fastened at the top or the bottom which reduce the openings to not more than 1 3/4 inches.

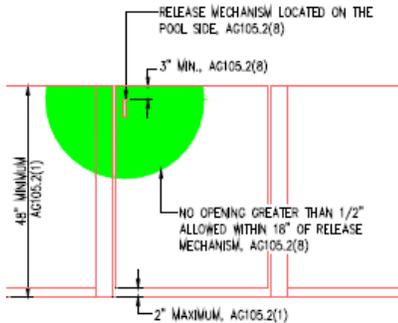


7. Where the barrier is composed of diagonal members, such as a lattice fence, the maximum opening formed by the diagonal members shall not be more than 1 3/4 inches.



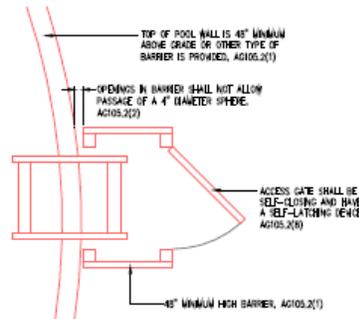
8. Access gates shall comply with the requirements of Section AG105.2, Items 1 through 7, and shall be equipped to accommodate a locking device. Pedestrian access gates shall open outward away from the pool and shall be self-closing and have a self-latching device. Gates other than pedestrian access gates shall have a self-latching device. Where the release mechanism of the self-latching device is located less than 54 inches from the bottom of the gate, the release mechanism and

surrounding openings shall comply with the following: The release mechanism shall be located on the pool side of the gate at least 3 inches below the top of the gate, and the gate and barrier shall have no opening greater than 1/2 inch within 18 inches of the release mechanism.



9. Where a wall of a dwelling serves as part of the barrier one of the following conditions shall be met:
 - 9.1. The pool shall be equipped with a power safety cover in compliance with ASTM F1346-91; or
 - 9.2. All doors with direct access to the pool through that wall shall be equipped with an alarm that produces an audible warning when the door and its screen, if present, are opened. The alarm shall sound continuously for a minimum of 30 seconds within 7 seconds after the door and its screen, if present, are opened and be capable of being heard throughout the house during normal activities. The alarm shall automatically reset under all conditions. The alarm system shall be equipped with a manual means, such as touchpad or switch, to temporarily deactivate the alarm for a single opening. Such deactivation shall last for not more than 15 seconds. The deactivation switch(es) shall be located at least 54 inches above the threshold of the door; or
 - 9.3. All doors with direct access to the pool through that wall shall be equipped with a self-closing and self-latching device with the release mechanism located a minimum of 54 inches above the door threshold. Swinging doors shall open away from the pool area.
10. Where an aboveground or on-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 the ladder or steps shall be surrounded by a barrier

which meets the requirements of Section AG105.2 Items 1 through 9.



AG105.3 Indoor swimming pool. All walls surrounding an indoor swimming pool shall comply with Section AG105.2, Item 9.

AG105.4 Prohibited locations. Barriers shall be located so as to prohibit permanent structures, equipment or similar objects from being used to climb the barriers.

AG105.5 Barrier exceptions. Spas or hot tubs with a safety cover which complies with ASTM F 1346, as listed in Section AG107, shall be exempt from the provisions of this appendix.

AG105.6 Temporary enclosure. A temporary enclosure shall be installed prior to the commencement of the installation of any in-ground swimming pool unless the permanent barrier specified in Section AG105.2 is in place prior to the commencement of the installation. The temporary enclosure shall be a minimum of 4 feet in height, shall have no openings that will allow passage of a 4-inch sphere and shall be equipped with a positive latching device on any openings.

AG105.7 Pool alarm. No building permit shall be issued for the construction or substantial alteration of a swimming pool at a residence occupied by, or being built for, one or more families unless a pool alarm is installed with the swimming pool. As used in this section, "pool alarm" means a device that emits a sound of at least 50 decibels when a person or an object weighing 15 pounds or more enters the water in a swimming pool.

Exception: Hot tubs and portable spas shall be exempt from this requirement.

THIS SECTION REMOVED

2009 INTERNATIONAL ENERGY CONSERVATION CODE

403.9 Pools (Mandatory). Pools shall be provided with energy-conserving measures in accordance with Sections 403.9.1 through 403.9.3.

403.9.1 Pool heaters. All pool heaters shall be equipped with a readily *accessible* on-off switch to allow shutting off the heater without adjusting the thermostat setting. Pool heaters fired by natural gas or LPG shall not have continuously burning pilot lights.

403.9.2 Time switches. Time switches that can automatically turn off and on heaters and pumps according to a preset schedule shall be installed on swimming pool heaters and pumps.

Exceptions:

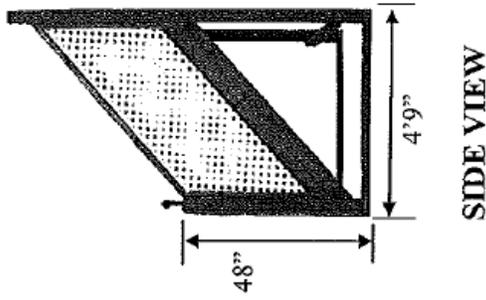
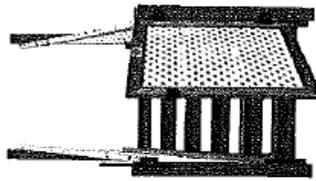
1. Where public health standards require 24-hour pump operation.
2. Where pumps are required to operate solar- and waste-heat-recovery pool heating systems.

403.9.3 Pool covers. Heated pools shall be equipped with a vapor-retardant pool cover on or at the water surface. Pools heated to more than 90°F (32°C) shall have a pool cover with a minimum insulation value of R-12.

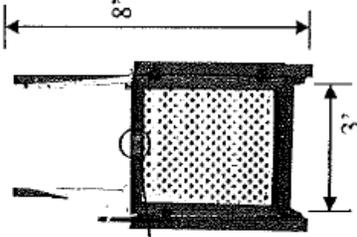
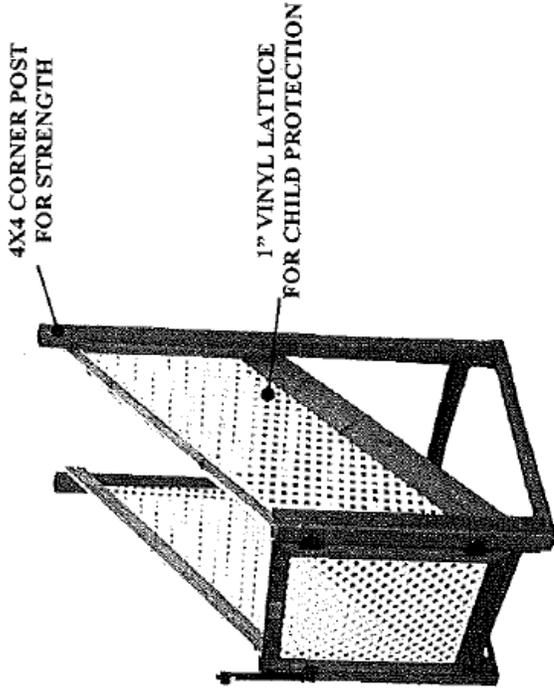
Exception: Pools deriving over 60 percent of the energy for heating from site-recovered energy or solar energy source.

SABRINA SAFETY STEPS

- Meets state & local requirements
- Made of premium grade pressure treated lumber
- Swinging, self-latching gate
- Can be locked
- Easy entry into pool
- Great for children or adults
- Latch unit 54" above grade



SIDE VIEW



FRONT VIEW

SELF CLOSING & LATCHING GATE FOR SAFETY



SUGGESTED SAFETY TIPS

- Have your pool professionally installed
- Always have your pool professionally wired for electricity
- Children are **NOT** waterproof...never leave children unattended
- Contact your local pool professional with questions regarding installations, chemistry, pool operations or other water safety devices

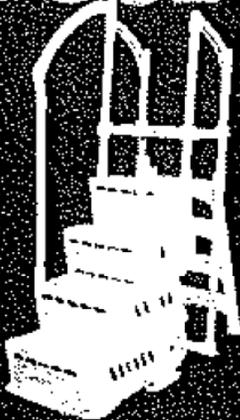
1 800 4-MAX FUN

860-742-7308

Delivery Available

POOL Entry systems

The Smart Choice System and Easy Entry Enclosure System meet all ANSI, BOCA and IRC code requirements. The Biltmore with Latching Ladder and Easy Entry Enclosure System meet all code requirements.



24" Biltmore Step with Classic Ladder
Fits 48" to 54" pools
Swing-up extension ladder
Entrapment-free hybrid steps
Comfortable entry and exit

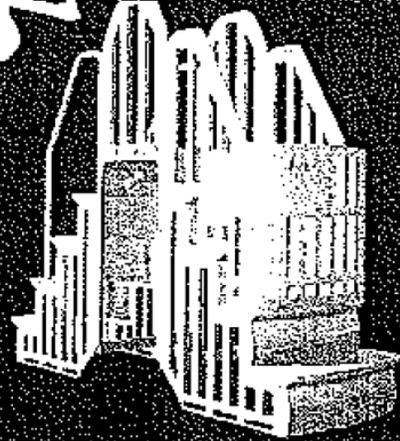


H2O A-Frame Ladder
Fits 48" to 64" pools
Swing-up extension ladder
Entrapment free hybrid steps

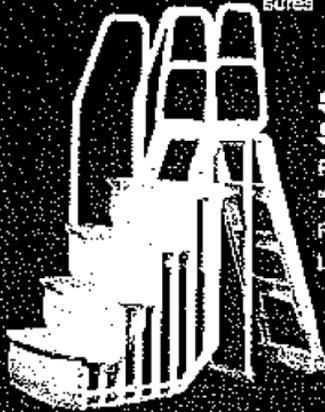
24" Biltmore Step with Latching Ladder
Fits 48" to 54" pools
Factory installed self latching exterior gate
Entrapment-free hybrid steps
Comfortable entry and exit
Meets BOCA code for self latching enclosures



Smart Choice System
Fits 48" to 54" pools
"Lift-off" entry side safety steps
Fully adjustable legs
Large 36" x 18" water side steps



Easy Entry Enclosure System
Sturdy free-standing all-steel modular unit
Self-closing and self-locking entry gate
Construction is not susceptible to rust or corrosion
Ventilated construction prevents algae growth
Non-slip stair treads
Meets all ANSI, BOCA and IRC code requirements.



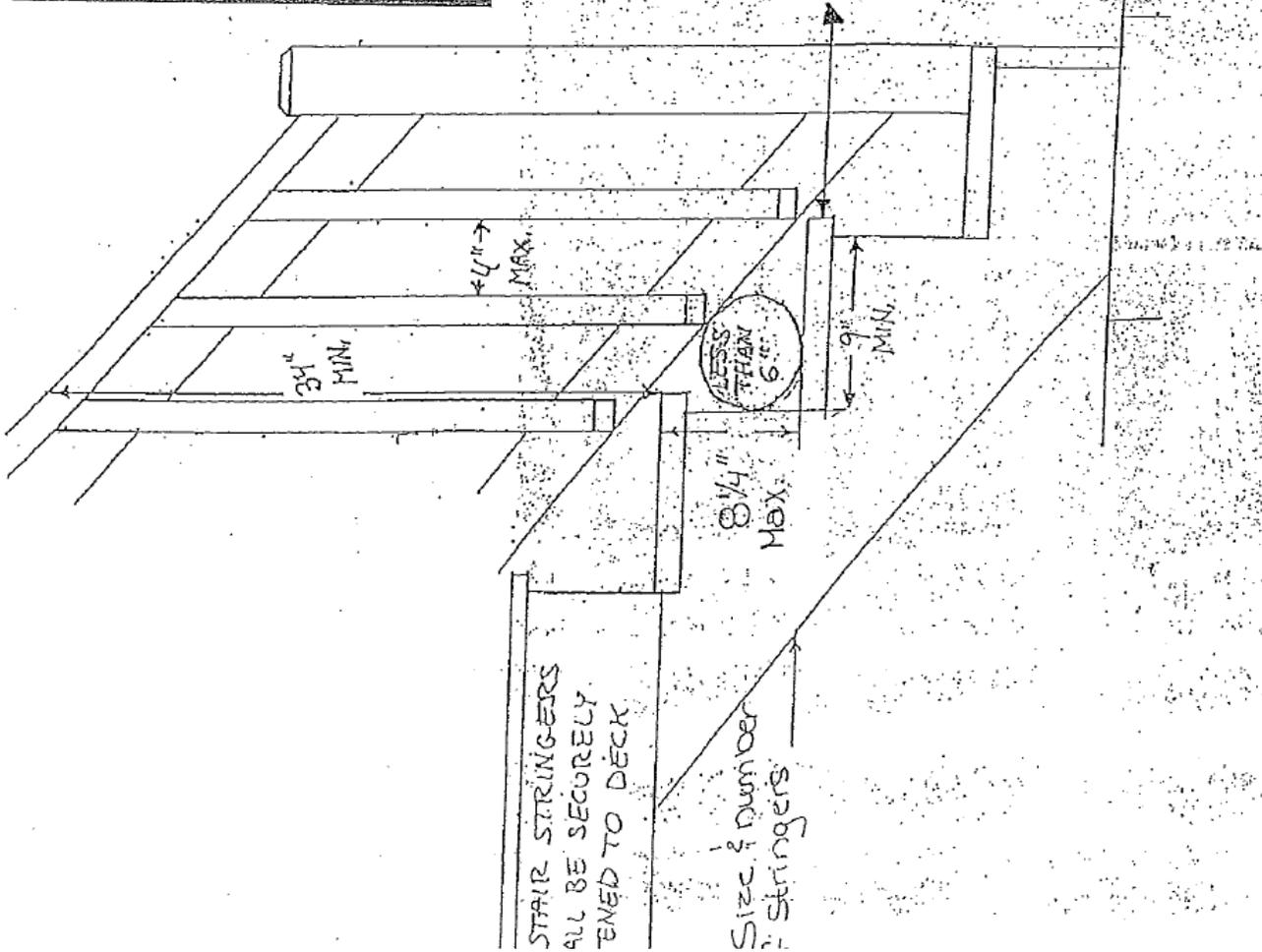
The "Lift Off" steps, A-Frame Ladder and Classic Ladder need to be surrounded with a fence.

The Biltmore with latching ladder and easy entry meet code requirements without any fence.

Stair Details

Please note that a deck constructed adjacent to a swimming pool using typical method shown here, may create a violation of one or more items in Section AG105 of the building code. See Sections AG105.2 items 4 & 5

If the Stair has closed risers, then the nosing of the tread must overhang the riser by $\frac{3}{4}$ " but not more than $1 \frac{1}{4}$ ".
The opening of an open riser must be less than 4".





An Act Concerning Alarms for New Swimming Pools PA No. 99-140

Be it enacted by the Senate and House of Representatives in General Assembly convened:

(NEW)

(a) As used in this section, "pool alarm" means a device which emits a sound of at least fifty decibels when a person or an object weighing fifteen pounds or more enters the water in a swimming pool.

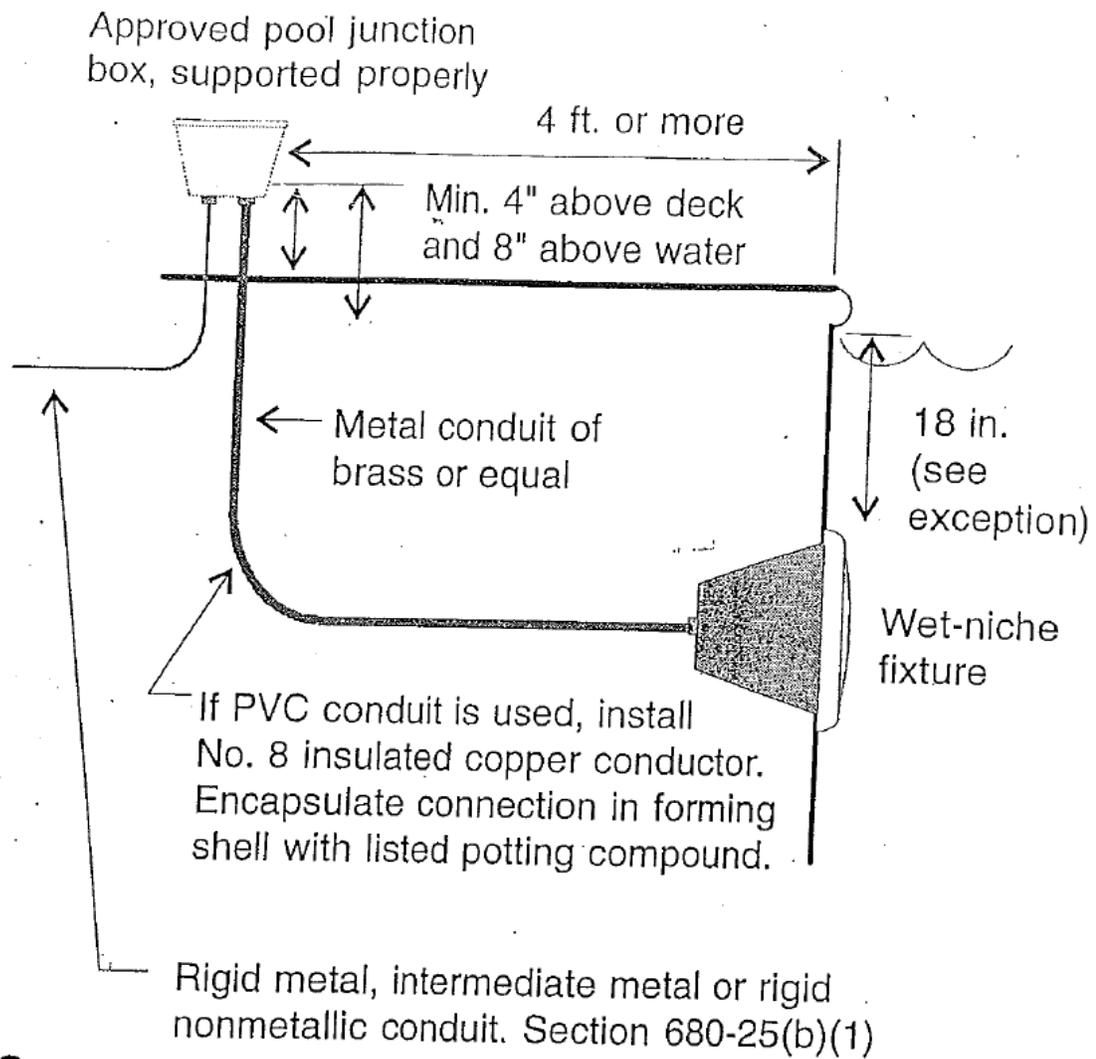
(b) No building permit shall be issued for the construction or substantial alteration of a swimming pool at a residence occupied by, or being built for, one or more families unless a pool alarm is installed with the swimming pool.

Does not take place of barrier or other code requirements – in addition to existing code

Approved June 8, 1999

Effective October 1, 1999

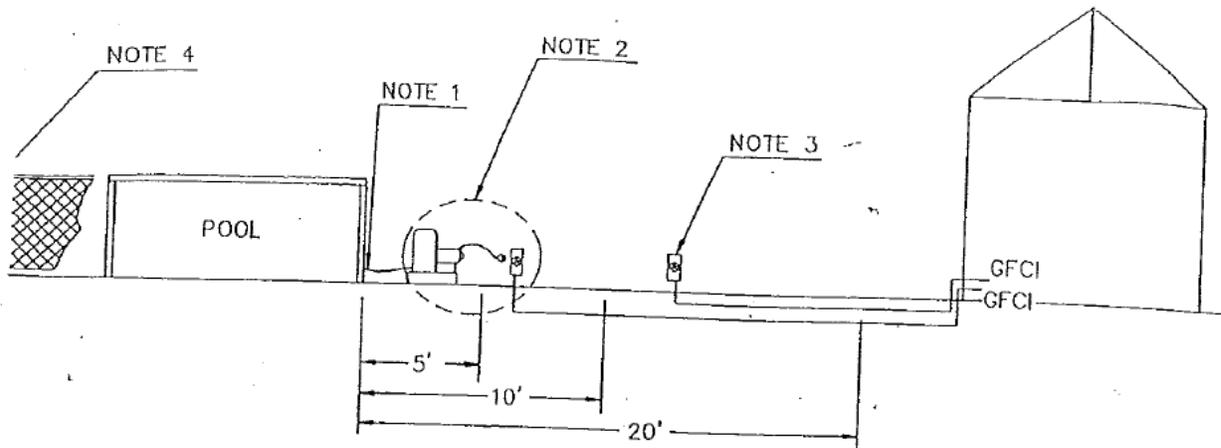
The swimming pool water alarms required by Public Act 99-140 must be installed in any residential swimming pool that a permit is applied for on or after October 1, 1999. The public act defines a pool alarm as a device that emits a sound of at least fifty decibels when a person or an object weighing fifteen pounds or more enters the water in a swimming pool. The act goes on to say that no building permit shall be issued for the construction or substantial alteration of a residence occupied by, or being built for, one or more families unless a pool alarm is installed with the swimming pool. You must obtain a statement from the permit applicant that the alarm will be installed before issuing the permit. Then, since that statement becomes part of the construction documents for the construction of the pool, you must check to make sure the alarm is in place prior to issuance of a Certificate of Occupancy for the pool. There are no stated requirements for how the alarm is powered or that require a remote horn, so the only criteria you have to inspect for is the fifteen pound object that triggers the alarm and the fifty decibel sound required. The manufacturer's installation instructions should stipulate that the alarm meets those criteria since they are not too easy to test for. In a related subject, look for the formal interpretation about door alarms required when the dwelling unit wall is part of the pool barrier elsewhere in this issue.



680-20. Underwater Lighting Fixtures.

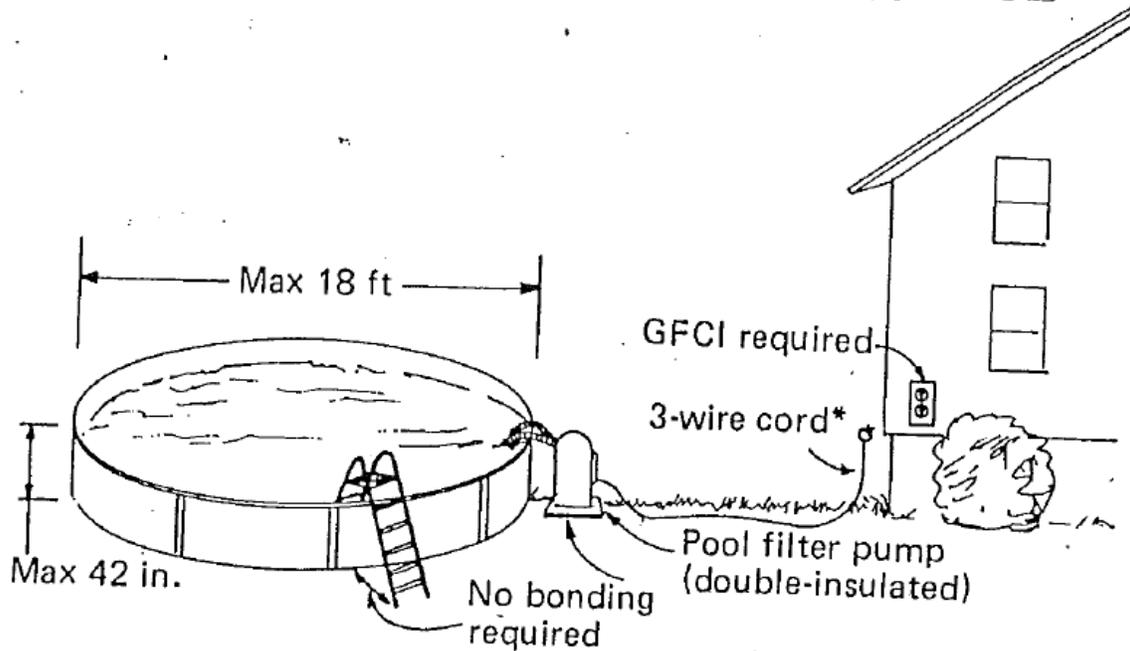
(3) Lighting fixtures mounted in walls shall be installed with the top of the fixture lens at least 18 inches (457 mm) below the normal water level of the pool. A lighting fixture facing upward shall have the lens adequately guarded to prevent contact by any person.

Exception: Lighting fixtures identified for use at a depth of not less than 4 inches (102 mm) below the normal water level of the pool shall be permitted.



- | <u>CODE SECTION</u> | <u>NOTE</u> |
|---------------------|--|
| NEC 680-22 | <p>1. <u>POOL:</u></p> <p>(A) Electrical bonding: individual metallic elements must be bonded.
 <u>Exception:</u> metal framed pools where all pieces are bolted together.</p> <p>(B) All bonding requires a minimum #8 solid copper wire.</p> <p>(C) Anything metallic within 5 feet of the pool (including ladders) must be bonded together.</p> |
| NEC 110-2 | <p>2. <u>PUMP AND FILTER UNIT:</u></p> <p>(A) Pump motor must be listed for pool use.</p> |
| NEC 680-7 | <p>(B) Pump motor line cord: maximum length of 36 inches, weatherproof, and a minimum of three #12 gauge wires with a twist lock plug.</p> |
| NEC 680-6 | <p>(C) Pool receptacle: location must be a minimum 5 feet from pool, single receptacle with three prong twist lock with an approved rain tight cover that can be used with the plug installed. <u>Circuit</u> serving receptacles must be a minimum of three #12 gauge insulated wires in an underground conduit, metallic or non-metallic, or MC Cable listed for the application, and <u>GFCI protected</u>. Cover over conduit must be 18 inches.</p> |
| NEC 410-57(b) | |
| NEC 680-25(c) | |
| NEC Table 300-5 | |
| NEC 680-6 | <p>3. <u>REQUIRED CONVENIENCE OUTLET:</u></p> <p>Location within 10 to 20 feet of pool, a minimum of three #14 gauge wires, underground wiring, direct burial cable is OK on a GFCI protected circuit.</p> |
| | <p>4. <u>ENCLOSURE:</u></p> <p>Please ask for requirements that apply to you specifically. The building code requires that pools be enclosed.</p> |

STORABLE SWIMMING OR WADING POOL



Illustrated are the requirements for a storable-type pool. Metal appurtenances are not required to be bonded. The 3-wire cord may be longer than 3 feet. (Some listed filter pumps are equipped with cords 25 ft long.) The receptacle shown can be a GFCI-type receptacle, a receptacle supplied through a GFCI-type receptacle, or a receptacle protected by a GFCI-type circuit breaker.

A storable pool may be readily disassembled and has a maximum dimension of 18 feet and a maximum wall height of 42 inches. Pools of any dimension with inflatable walls are considered to be storable. See definition in Section 680-4. This type of pool and its associated equipment do not require bonding conductors. However, the filter pump is required to be double insulated or equivalent, and grounding means consisting of an equipment grounding conductor that is an integral part of the flexible cord is required to be provided. There are portable filter pumps for use with storable pools listed by Underwriters Laboratories Inc.

The receptacle is required to be located at least 10 feet from pool [see Section 680-6(a)], and all electric equipment is required to have ground-fault circuit-interrupter protection for personnel.

ACCEPTABLE RECEPTACLE LOCATIONS WITHIN 20 FEET OF A SWIMMING POOL.

