## ENTRACE TOWNS

## TOWNSHIP OF FLORENCE

711 BROAD STREET • FLORENCE, NEW JERSEY 08518-2323 PHONE: (609) 499-2525 • WWW.FLORENCE-NJ.GOV

## Dear Applicant,

Enclosed you will find a packet of information to help you obtain a construction permit for your swimming pool. The information includes a copy of the current building code requirements as well as a sample of an approved type ladder enclosure for above ground pools. The following information will be required when you submit your permit:

- A completed Construction Permit Application front and inside left of jacket.
- A completed Building & Electrical Technical forms (Plumbing technical also required for inground pools).
- A completed Zoning permit application.
- A copy of your Zoning resolution or acknowledgement letter **if** you obtained a bulk variance.
- 2 copies of your survey showing exactly where you intend to put your pool, filter and pool barrier location (fence).
- Above ground pools need a copy of the manufacturer's installation instructions.
- In ground pools require:
  - o 2 sets of NJ architect or engineer sealed plans.
  - o 2 copies of grading plan sealed by NJ licensed engineer.
  - o \$300 Twp Engineer fees (\$125 grading plan review, \$175 inspection)
- Details on your pool barrier (fence); show type, height, construction, location of all gates into pool and show gates as self-closing, self-latching and swinging out away from the pool area.
- Electric diagram to show compliance with 2017 NEC, Article 680.
- All pools must comply with the 2018 International Swimming Pool and Spa Code (ISPSC).

We realize you are anxious to get your new pool in as quickly as possible. We also understand and appreciate that you are trying to do the "right thing" and get all required permits and inspections. This being the case, we will assist you with the process, but ask that you do your part by providing the required information listed above.

When you are finished your pool project you can rest assured your pool meets all current codes and ordinances and will be safe for all concerned. If you have any questions, call 609-499-2130.

Sincerely,

James U. Hoey, IV

Construction Official



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## Private residential swimming pools.

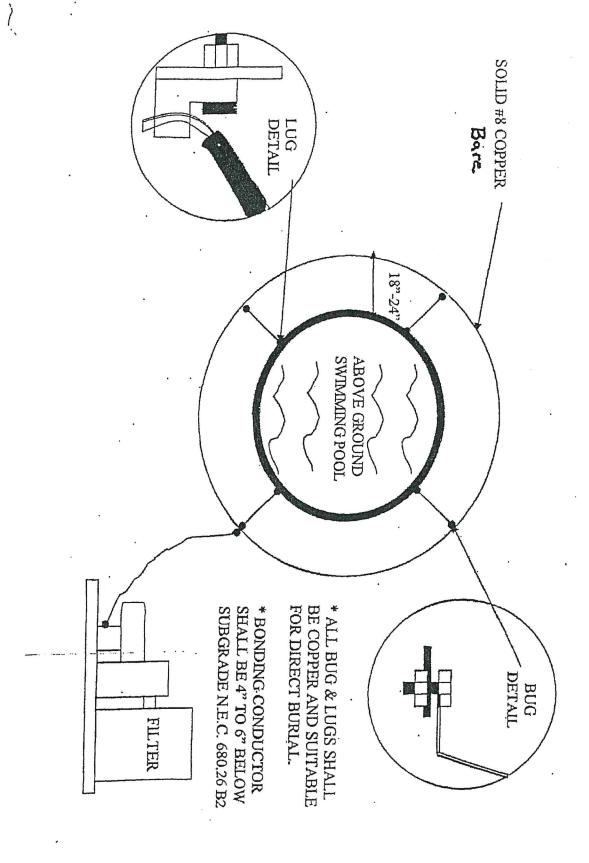
A wall of a swimming pool shall not be located less than six feet from any rear or side property line or 10 feet from any alley or easement line. Swimming pools shall not be located within any front yard setback.

In addition to the application for a construction permit, an applicant seeking to construct an in-ground swimming pool must also include grading plans which illustrate the proposed location of the pool as well as any appurtenances, and existing and proposed grades, and which demonstrate the proposed flow of surface drainage. The grading plan shall be signed and sealed by a licensed New Jersey professional engineer and shall be reviewed and approved by the Township Engineer to ensure that surface water flow is not impacted and that adjoining properties will not be subject to runoff beyond that which is existing prior to the installation of the in-ground pool.

Before the Construction Department issues a certificate of approval, the applicant's engineer must submit an as-built certification letter documenting that the in-ground pool has been installed in substantial conformity to the grading plan previously approved by the Township Engineer.

Should the applicant seek to make any modification to the Township-approved grading plans, the applicant must submit the amended plans for additional review and approval by the Township Engineer. The cost of professional services rendered by the Township Engineer in connection with the application(s) shall be in accordance with Chapter 2, § 2-3, (entitled "Inspection fees"), of the Code of the Township of Florence.

# EQUIPOTENTIAL BONDING DETAIL N.E.C. 680-26



Follow these Important Safety Instructions PoolBond PB-2008 Water Bonding Fitting

USTED 40YZ

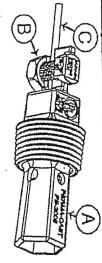




Part Number PB-2008

## Step Components

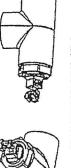




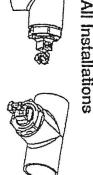
- PoolBond Casting Part Number PB-2008 with 1" NPT Pipe Thread.
- A. PoolBond Casting Part Number PB-2008 with
   B. Split Bolt Connector, UL rated for Direct Burial.
   C. Solid #8 Copper wire, not supplied.

## Step 2 Fitting Orientation

- Install in Pool Plumbing using a Plumbing Tee.
- Always install the Poolbond Tee with the fitting in horizontal or vertically down orientation to avoid trapped air in pool plumbing.

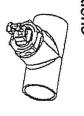


Horizontal





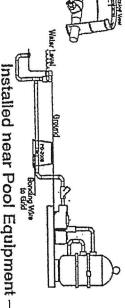






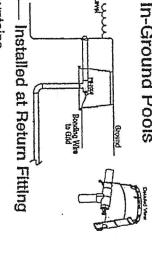
Above Ground Pools

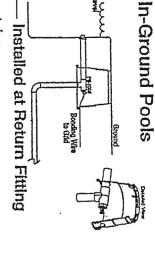
## Step 3 Where to Install

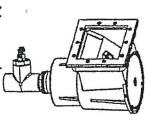


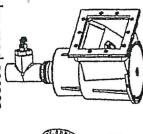
Install on In-ground & Above Ground Pools, Spas, Tubs, & Fountains.

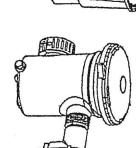
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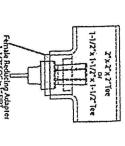


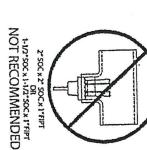
- DO NOT bury the PoolBond fitting, it should be accessible for periodic inspection. A sprinkler valve box provides good access.
- IMPORTANT Install PoolBond fitting at least 3" below water level to assure the fitting is contained in the pool water even when equipment is shut d

## Step 4 Installing PoolBond

- First, install the male threaded fitting in the threaded tee (dry fit) until the fitting just starts to tighten on the threaded tee. Count the number of turns it takes. Document this number and disengage the two parts.
- Apply thread sealant. Use Plumber Pipe Dope or Teflon Paste, do not use
- Reassemble the two parts using the number of turns recorded in the plastic pipe. first step and tighten two more turns. Do not overtighten to avoid damaging

RECOMMENDED Intelligence 2. Pipe







Perma-Cast Comp Aspen Circi

www.permacastoniii

## Lug Detail Electrical Code Art. 680, 26 copper conductor for bonding for bonding to all metal within POOL bare) copper lug to leg 5 ft of pool walls. Pump outlet no closer than 6 ft from pool. of poolbilos 8 #\_ A STORABLE POOL IS CONSTRUCTED SO THAT IT MAY BE READILY DISASSEMBLED FOR STORAGE AND FOR STORABLE POOLS. A PERMANENTLY INSTALLED POOL IS CONSTRUCTED IN OR ON THE GROUND AND THIS MOTOR IS U.L. LISTED FOR PERMANENTLY NSTALLED POOLS OR SPAS. IT IS NOT U.L. LISTED CANNOT BE READILY DISASSEMBLED FOR STORAGE. REASSEMBLED TO ITS ORIGINAL INTEGRITY. CAUTION. Electrical Code Max. 3 ft cord # 12 wire min. Art. 680,0 Conduit from house to filter outlet (#12 AWG minimum.) Mechanical lug on motor cover; ground fault outlet with bubble Support Post Junction Box protected. Waterproof Outside 20 amp #12 AWG min.) approved for inside house. Grade Level EXISTING HOUSE Romex-

ELECTRICAL DIAGRAM FOR ABOVE GROUND POOLS

IMPORTANT: Code requires a minimum of one (1) additional convenience outlet, no closer than ten (6 | ft and no farther than twenty (20) ft from pool, on a different circuit from pump motor with bubble plate and ground fault protection. (Electrical Code Art. 680, 22

Pump circuit to be labeled in Panel Box.

NOTE:

Pool wiring shall be installed in PVC schedule 40 conduit 18" below final grade, with 3 #12awg. THEN conductors. 1- black 1- white 1- green insulated all the way to panel equipment ground.

2 0 1 8

INTERNATIONAL CODES®

## 

A Member of the International Code Family®

## INCLUDES

APSP-7 Standard for Suction Entrapment Avoidance

INTERNATIONAL SWIMMING POOL AND SPA CODE®





permanent residential spas shall be controlled in accordance with the requirements of APSP 15.

## SECTION 304 FLOOD HAZARD AREAS

**304.1 General.** The provisions of Section 304 shall control the design and construction of pools and spas installed in *flood hazard areas*.

[BS] 304.2 Determination of impacts based on location. Pools and spas located in *flood hazard areas* indicated within the *International Building Code* or the *International Residential Code* shall comply with Section 304.2.1 or 304.2.2.

Exception: Pools and spas located in riverine flood hazard areas that are outside of designated floodways and pools and spas located in flood hazard areas where the source of flooding is tides, storm surges or coastal storms.

[BS] 304.2.1 Pools and spas located in designated floodways. Where pools and spas are located in designated floodways, documentation shall be submitted to the code official that demonstrates that the construction of the pools and spas will not increase the design flood elevation at any point within the jurisdiction.

[BS] 304.2.2 Pools and spas located where floodways have not been designated. Where pools and spas are located where design flood elevations are specified but floodways have not been designated, the applicant shall provide a floodway analysis that demonstrates that the proposed pool or spa and any associated grading and filling, will not increase the design flood elevation more than 1 foot (305 mm) at any point within the jurisdiction.

[BS] 304.3 Pools and spas in coastal high-hazard areas. Pools and spas installed in coastal hazard areas shall be designed and constructed in accordance with ASCE 24.

[BS] 304.4 Protection of equipment. Equipment shall be elevated to or above the design flood elevation or be anchored to prevent flotation and protected to prevent water from entering or accumulating within the components during conditions of flooding.

304.5 GFCI protection. Electrical equipment installed below the design flood elevation shall be supplied by branch circuits that have ground-fault circuit interrupter protection for personnel.

## SECTION 305 BARRIER REQUIREMENTS

305.1 General. The provisions of this section shall apply to the design of barriers for pools and spas. These design controls are intended to provide protection against the potential drowning and near drowning by restricting access to such pools or spas. These requirements provide an integrated level of protection against potential drowning through the use of physical barriers and warning devices.

## **Exceptions:**

1. Spas and hot tubs with a lockable *safety cover* that complies with ASTM F 1346.

Swimming pools with a powered safety cover that complies with ASTM F 1346.

305.2 Outdoor swimming pools and spas. Outdoor pools and spas and indoor swimming pools shall be surrounded by a barrier that complies with Sections 305.2.1 through 305.7.

305.2.1 Barrier height and clearances. Barrier heights and clearances shall be in accordance with all of the following:

- 1. The top of the barrier shall be not less than 48 inches (1219 mm) above grade where measured on the side of the barrier that faces away from the pool or spa. Such height shall exist around the entire perimeter of the barrier and for a distance of 3 feet (914 mm) measured horizontally from the outside of the required barrier.
- 2. The vertical clearance between grade and the bottom of the barrier shall not exceed 2 inches (51 mm) for grade surfaces that are not solid, such as grass or gravel, where measured on the side of the barrier that faces away from the pool or spa.
- 3. The vertical clearance between a surface below the barrier to a solid surface, such as concrete, and the bottom of the required barrier shall not exceed 4 inches (102 mm) where measured on the side of the required barrier that faces away from the pool or spa.
- 4. Where the top of the pool or spa structure is above grade, the barrier shall be installed on grade or shall be mounted on top of the pool or spa structure. Where the barrier is mounted on the top of the pool or spa, the vertical clearance between the top of the pool or spa and the bottom of the barrier shall not exceed 4 inches (102 mm).

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

305.2.3 Solid barrier surfaces. Solid barriers that do not have openings shall not contain indentations or protrusions that form handholds and footholds, except for normal construction tolerances and tooled masonry joints.

305.2.4 Mesh fence as a barrier. Mesh fences, other than chain link fences in accordance with Section 305.2.7, shall be installed in accordance with the manufacturer's instructions and shall comply with the following:

- 1. The bottom of the mesh fence shall be not more than 1 inch (25 mm) above the deck or installed surface or grade.
- 2. The maximum vertical clearance from the bottom of the mesh fence and the solid surface shall not permit the fence to be lifted more than 4 inches (102 mm) from grade or decking.
- 3. The fence shall be designed and constructed so that it does not allow passage of a 4-inch (102 mm) sphere under any mesh panel. The maximum vertical clearance from the bottom of the mesh fence and the solid surface shall not be more than 4 inches (102 mm) from grade or decking.

- 4. An attachment device shall attach each barrier section at a height not lower than 45 inches (1143 mm) above grade. Common attachment devices include, but are not limited to, devices that provide the security equal to or greater than that of a hook-and-eyetype latch incorporating a spring-actuated retaining lever such as a safety gate hook.
- 5. Where a hinged gate is used with a mesh fence, the gate shall comply with Section 305.3.
- Patio deck sleeves such as vertical post receptacles that are placed inside the patio surface shall be of a nonconductive material.
- 7. Mesh fences shall not be installed on top of onground *residential* pools.
- 305.2.5 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 pool or spa side of the fence. Spacing between vertical members shall not exceed  $1^{3}/_{4}$  inches (44 mm) in width. Where there are decorative cutouts within vertical members, spacing within the cutouts shall not exceed  $1^{3}/_{4}$  inches (44 mm) in width.
- 305.2.6 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, the interior width of the cutouts shall not exceed 13/4 inches (44 mm).
- 305.2.7 Chain link dimensions. The maximum opening formed by a chain link fence shall be not more than  $1^3/_4$  inches (44 mm). Where the fence is provided with slats fastened at the top and bottom which reduce the openings, such openings shall be not more than  $1^3/_4$  inches (44 mm).
- 305.2.8 Diagonal members. Where the barrier is composed of diagonal members, the maximum opening formed by the diagonal members shall be not more than  $1^{3}/_{4}$  inches (44 mm). The angle of diagonal members shall be not greater than 45 degrees (0.79 rad) from vertical.
- 305.2.9 Clear zone. There shall be a clear zone of not less than 36 inches (914 mm) between the exterior of the barrier and any permanent structures or equipment such as pumps, filters and heaters that can be used to climb the barrier.
- 305.2.10 Poolside barrier setbacks. The pool or spa side of the required barrier shall be not less than 20 inches (508 mm) from the water's edge.
- 305.3 Gates. Access gates shall comply with the requirements of Sections 305.3.1 through 305.3.3 and shall be equipped to accommodate a locking device. Pedestrian access gates shall open outward away from the pool or spa, shall be self-closing and shall have a self-latching device.

- 305.3.1 Utility or service gates. Gates not intended for pedestrian use, such as utility or service gates, shall remain locked when not in use.
- 305.3.2 Double or multiple gates. Double gates or multiple gates shall have at least one leaf secured in place and the adjacent leaf shall be secured with a self-latching device. The gate and barrier shall not have openings larger than <sup>1</sup>/<sub>2</sub> inch (12.7 mm) within 18 inches (457 mm) of the latch release mechanism. The self-latching device shall comply with the requirements of Section 305.3.3.
- 305.3.3 Latches. Where the release mechanism of the self-latching device is located less than 54 inches (1372 mm) from grade, the release mechanism shall be located on the pool or spa side of the gate not less than 3 inches (76 mm) below the top of the gate, and the gate and barrier shall not have openings greater than \(^{1}\sigma\_{2}\) inch (12.7 mm) within 18 inches (457 mm) of the release mechanism.
- 305.4 Structure wall as a barrier. Where a wall of a dwelling or structure serves as part of the barrier and where doors or windows provide direct access to the pool or spa through that wall, one of the following shall be required:
  - 1. Operable windows having a sill height of less than 48 inches (1219 mm) above the indoor finished floor and doors shall have an alarm that produces an audible warning when the window, door or their screens are opened. The alarm shall be *listed* and *labeled* as a water hazard entrance alarm in accordance with UL 2017. In dwellings or structures not required to be Accessible units, Type A units or Type B units, the operable parts of the alarm deactivation switches shall be located 54 inches (1372 mm) or more above the finished floor. In dwellings or structures required to be Accessible units, Type A units or Type B units, the operable parts of the alarm deactivation switches shall be located not greater than 54 inches (1372 mm) and not less than 48 inches (1219 mm) above the finished floor.
  - 2. A safety cover that is listed and labeled in accordance with ASTM F 1346 is installed for the pools and spas.
  - 3. An approved means of protection, such as self-closing doors with self-latching devices, is provided. Such means of protection shall provide a degree of protection that is not less than the protection afforded by Item 1 or 2
- 305.5 Onground residential pool structure as a barrier. An onground residential pool wall structure or a barrier mounted on top of an onground residential pool wall structure shall serve as a barrier where all of the following conditions are present:
  - Where only the pool wall serves as the barrier, the bottom of the wall is on grade, the top of the wall is not less than 48 inches (1219 mm) above grade for the entire perimeter of the pool, the wall complies with the requirements of Section 305.2 and the pool manufacturer allows the wall to serve as a barrier.

- 2. Where a barrier is mounted on top of the pool wall, the top of the barrier is not less than 48 inches (1219 mm) above grade for the entire perimeter of the pool, and the wall and the barrier on top of the wall comply with the requirements of Section 305.2.
- 3. Ladders or steps used as means of access to the pool are capable of being secured, locked or removed to prevent access except where the ladder or steps are surrounded by a barrier that meets the requirements of Section 305.
- Openings created by the securing, locking or removal of ladders and steps do not allow the passage of a 4inch (102 mm) diameter sphere.
- 5. Barriers that are mounted on top of onground *residential* pool walls are installed in accordance with the pool manufacturer's instructions.
- 305.6 Natural barriers. In the case where the pool or spa area abuts the edge of a lake or other natural body of water, public access is not permitted or allowed along the shoreline, and required barriers extend to and beyond the water's edge not less than 18 inches (457 mm), a barrier is not required between the natural body of water shoreline and the pool or spa.
- 305.7 Natural topography. Natural topography that prevents direct access to the pool or spa area shall include but not be limited to mountains and natural rock formations. A natural barrier approved by the governing body shall be acceptable provided that the degree of protection is not less than the protection afforded by the requirements of Sections 305.2 through 305.5.

## SECTION 306 DECKS

306.1 General. Decks shall be designed and installed in accordance with the International Residential Code or the International Building Code, as applicable in accordance with Section 102.7.1, except as provided in this section.

306.2 Slip resistant. Decks, ramps, coping, and similar step surfaces shall be slip resistant and cleanable. Special features in or on decks such as markers, brand insignias, and similar materials shall be slip resistant.

306.3 Step risers and treads. Step risers for decks of public pools and spas shall be uniform and have a height not less

than  $3^3/_4$  inches (95 mm) and not greater than  $7^1/_2$  inches (191 mm). The tread distance from front to back shall be not less than 11 inches (279 mm). Step risers for decks of *residential* pools and spas shall be uniform and shall have a height not exceeding  $7^1/_2$  inches (191 mm). The tread distance from front to back shall be not less than 10 inches (254 mm).

306.4 Deck steps handrail required. Public pool and spa deck steps having three or more risers shall be provided with a handrail.

306.5 Slope. The minimum slope of decks shall be in accordance with Table 306.5 except where an alternative drainage method is provided that prevents the accumulation or pooling of water. The slope for decks, other than wood decks, shall be not greater than  $^{1}/_{2}$  inch per foot (1 mm per 24 mm) except for ramps. The slope for wood and wood/plastic composite decks shall be not greater than  $^{1}/_{4}$  inch per 1 foot (1 mm per 48 mm). Decks shall be sloped so that standing water will not be deeper than  $^{1}/_{8}$  inch (3.2 mm), 20 minutes after the cessation of the addition of water to the deck.

**306.6 Gaps.** Gaps shall be provided between deck boards in wood and wood/plastic composite decks. Gaps shall be consistent with *approved* engineering methods with respect to the type of wood used and shall not cause a tripping hazard.

**306.6.1** Maximum gap. The open gap between pool decks and adjoining decks or walkways, including joint material, shall be not greater than  $^{3}/_{4}$  inch (19.1 mm). The difference in vertical elevation between the pool deck and the adjoining sidewalk shall be not greater than  $^{1}/_{4}$  inch (6.4 mm).

**306.7 Concrete joints.** Isolation joints that occur where the pool coping meets the concrete deck shall be water tight.

**306.7.1 Joints at coping.** Joints that occur where the pool coping meets the concrete deck shall be installed to protect the coping and its mortar bed from damage as a result of the anticipated movement of adjoining deck.

306.7.2 Crack control. Joints in a deck shall be provided to minimize visible cracks outside of the control joints caused by imposed stresses or movement of the slab.

**306.7.3** Movement control. Areas where decks join existing concrete work shall be provided with a joint to protect the pool from damage caused by relative movement.

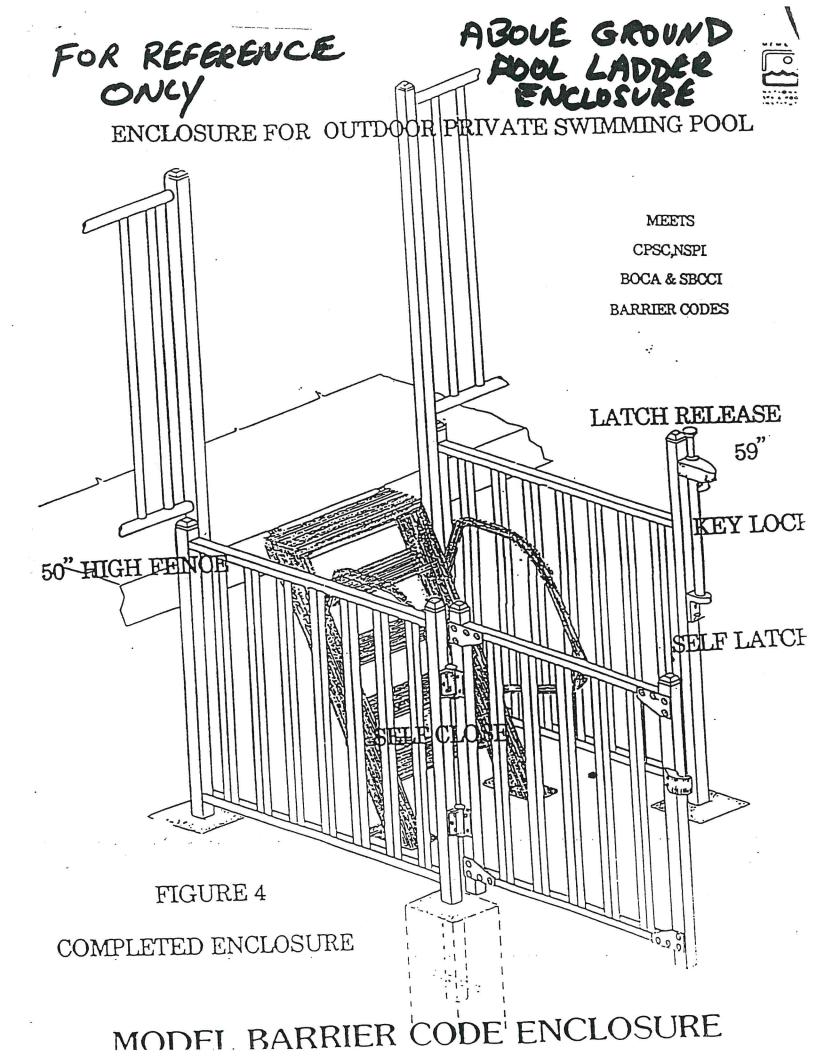
306.8 Deck edges. The edges of decks shall be radiused, tapered, or otherwise designed to eliminate sharp corners.

### TABLE 306.5 MINIMUM DRAINAGE SLOPES FOR DECK SURFACES

| SURFACE  | MINIMUM DRAINAGE SLOPE<br>(INCH PER FOOT) |  |  |
|--|---|--|--|
| Carpet   | 1/2                                       |  |  |
| Exposed aggregate                                      | 1/4                                       |  |  |
| Textured, hand-finished concrete                       | 1/8                                       |  |  |
| Travertine/brick-set pavers, public pools or spas      | 3/8                                       |  |  |
| Travertine/brick-set pavers, residential pools or spas | 1/8                                       |  |  |
| Wood   | 1/8                                       |  |  |
| Wood/plastic composite                                 | 1/8                                       |  |  |

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm.





REFERENCE ONLY

