



# Installation of Private Swimming Pools, Hot Tubs, and Spas

CITY OF NEWARK, CALIFORNIA

BUILDING INSPECTION DIVISION

37101 Newark Boulevard, Newark, CA 94560-3796 • 510-578-4261 • Fax 510-578-4307 • e-mail: building.inspection@newark.org

Revised January 1, 2011

## What Is a Private Swimming Pool?

A private swimming pool is a structure that contains water over 18 inches deep intended for noncommercial swimming or recreational bathing and located on the premises of a single-family dwelling. This includes in-ground, above-ground, and on-ground gunite, fiberglass, or vinyl swimming pools; hot tubs; portable and nonportable spas; and fixed-in-place wading pools. Pools can be located either indoors or outdoors.

## Permits

The installation of a private fiberglass, vinyl, or gunite swimming pool requires a building permit. Permits can be obtained from the Building Inspection Division located on the first floor of the City Administration Building. The documents needed to obtain a permit are:

- Site Plan showing entire parcel with house, garage, accessory structures, property lines, and the proposed pool and pool equipment. This site plan will need to be reviewed and approved by the City Planning Division.
- Construction Drawings for gunite pools shall include a plan, structural section, and structural calculations, which are normally prepared by a licensed engineer and provided by the pool contractor. For fiberglass and vinyl pools provide a copy of the International Conference of Building Officials (ICBO) Evaluation Report for the specific pool manufacturer. For permanently installed hot tubs and spas, no construction documents are required unless units are adjacent to decks over 30 inches high. For decks over 30 inches high, drawings showing the deck installation are required.
- Building Permit forms are provided by the City and are filled out by the pool contractor. The contractor will need to hold a Class C53 State Contractors License, have a certificate of workers compensation insurance on file with the City, and a City business license.

## Exemptions from Permit Standards

On-ground portable self-contained hot tubs, spas, and vinyl pools with less than a 5,000 gallon water capacity which plug into a single 125 volt electrical outlet are exempt from most building permit requirements. However, such installations must comply with fencing, location, and electrical standards. (A 14'-6" diameter x 4' high pool holds 5,000 gallons.) An electrical permit is required if any new or modified electrical work is needed.

## Plan Review

All swimming pools require a plan review to verify compliance with the Zoning Ordinance. Gunite pools also require a plan review to verify compliance with the applicable structural codes. Fiberglass one-piece swimming pools (excluding hot tubs and spas) require third party testing which is normally done by ICBO and is given a certification number (as an example Viking Pools' ICBO certification number is PFC-3608).

## Location

The location of a pool and its equipment must conform to the following standards:

- The inside edge of a swimming pool shall be no closer than 5 feet from any property line.
- The inside edge of an in-ground swimming pool shall be no closer than 5 feet from any structure.
- Pool equipment, including pumps, filters, and heaters, shall be no closer than 3 feet from any property line.
- Gas-fired pool heaters shall be no closer than 4 feet from a door or openable window.
- The edge of a swimming pool shall be no closer than 10 feet from an exit of any building or structure unless such exit is protected by the equivalent of a 42-inch-high rail or barrier.
- No swimming pool (except portable on-ground hot tubs and spas) shall be located in a utility easement.

## General Requirements

- Water from a pool shall not drain up against a dwelling, garage, or any accessory structure, nor shall it drain onto any adjoining property.
- Rain water that does not fall directly into a swimming pool shall not drain into such swimming pool.
- During the construction of the swimming pool, all construction vehicles, including dump trucks, tractors, trailers, and delivery trucks, shall access the site via the driveway only. Entering the site over curbs, gutters, and sidewalks is prohibited.
- During construction all excavations shall be secured to prevent access by small children and unauthorized persons.
- During construction the contractor shall take appropriate measures to ensure dust generated by the installation of the swimming pool does not drift onto adjacent properties.
- For large, one-piece fiberglass swimming pools (not hot tubs or spas) a permanent visible identification label listing the following information shall be installed at the location of the pool pumping/filtering equipment:
  - Manufacturer's name.
  - Model name or number of pool shell.
  - Name of installer.
  - Special instructions.
  - Warning that advises operators not to drain the pool without taking proper precautions to prevent the pool shell from floating.

## Electrical Requirements

- There shall be no convenience electrical outlets within 10 feet of the inside edge of a swimming pool.
- At least one 125 volt ground fault interrupter protected, weatherproof convenience outlet shall be installed no closer than 10 feet or further than 20 feet from the inside edge of the swimming pool.
- All pool lights shall operate at no more than 150 volts.
- All electrical pool equipment (including pumps, heating devices, and pool light niches, and all metal, including railing, fencing, diving boards, and pool and deck reinforcing steel) within 5 feet of the pool shall be bonded together with a solid No. 8 copper wire.
- PVC electrical underground conduit shall be protected from damage by 18 inches of earth cover when not protected by a concrete deck.

## Plumbing Requirements

- Water filling devices connected permanently to the pool or its equipment shall have a vacuum breaker valve installed between the domestic water supply and the pool to prevent pool water from entering the domestic water supply.
- Underground gas pipes shall be factory wrapped iron pipe with all joints field taped using UPC approved tape.
- Above-ground gas pipes shall be galvanized iron pipe and installed at least 6 inches above grade.

## Anti-Entrapment Drains

Suction outlets, drains, or circulation inlets for swimming pools, toddler pools, and spas can pose a danger to bathers who come in contact with them. If the drain, outlet, or inlet has high enough suction, it can hold a bather against it and cause severe injury or even death. It does not happen often, but it does happen. Assembly Bill 2977 (2006) attempted to lessen this danger by revising Section 115920, Swimming Pool Safety Act, of the Health and Safety Code. All new pools and all existing pools which are being modified are required to have anti-entrapment drains.

## Fencing

All new private swimming pools located in the City of Newark are required to be protected from entry by small children by a fence or barrier. The fence or barrier must surround the pool and isolate it from public areas, streets, neighboring residences, and the dwelling (including the garage) that it serves. House perimeter walls may be considered as part of the required barrier provided doors meet the requirements below.

- Fence construction: All fences shall be at least 60 inches high and constructed to keep small children from climbing under, over, or through it. The standards shown in Figure 1 shall apply. For other standards please refer to Appendix Chapter 4 of the California Building Code.
- Gates: All exterior openings in a fence shall be protected with gates meeting the standards for fences and be self-closing, self-latching, and swing away from the pool. Latching devices shall be at least 54 inches above grade or located on the pool side of the gate at least 3 inches below the top of the gate with both the fence and gate, within 18 inches of the latch having no opening larger than ½ inch.
- Doors: All doors (including sliding glass doors) opening from a dwelling or garage into the pool area shall be self-closing and self-latching with the release mechanism located a minimum of 54 inches above the floor. Doors which by their construction and/or use cannot meet the above mentioned standards shall be equipped with alarms.

## Inspections - Gunite Pools

- 1st Inspection occurs after the reinforcing steel, light niches, and bonding has been installed.
- 2nd Inspection occurs after the pool has been gunited and underdeck electrical conduit, deck reinforcing steel, and bonding wire has been installed. If the pool has a gas-fired heater, the gas pipe line is inspected (attach gauge that reads no more than 30 psi to pipe and pressure to 15 psi).
- 3rd inspection occurs after all pool equipment has been installed, the deck poured, and the fencing installed. This inspection occurs just prior to the plastering for gunite pools.

## Inspections - Fiberglass Pools

- 1st inspection occurs after the pool shell has been set, the deck reinforcing and underdeck conduit installed, bonding has been placed, and any special construction is in place to address expansive

soils. If the pool has a gas-fired heater, the gas pipe line is inspected (attach gauge that reads no more than 30 psi to pipe and pressure to 15 psi).

- 2nd inspection occurs after all pool equipment has been installed, the deck poured, and the fencing installed.

## **Inspections – Self-Contained Hot Tubs and Spas and On-Ground Vinyl Pools**

One inspection occurs after the pool, electrical, and fencing is installed and complete. Any conduit in trenches shall remain exposed for inspection.

### **Inspection Checklist**

#### **Fiberglass Pools**

- Fiberglass pools – installed per ICBO Evaluation Report.
- Identification label for fiberglass pools installed.
- Manufacturer's instructions followed for expansive soils.

#### **Location, Setbacks, and Clearances**

- All pools – set back 5' from property line.
- In-ground pools – set back 5' from buildings
- Pool equipment no closer than 3' to property line.
- Gas heaters no closer than 4' to openable windows or doors.
- Exit doors no closer than 10' to pool edge.
- Pool located outside utility easements.

#### **Drainage**

- Water from pool does not drain against dwelling.
- Rain water does not surface drain into pool.
- Pool does not cause water to drain onto adjacent lots.

#### **Construction Practices**

- Construction equipment did not drive over curbs/gutters.
- Dust did not drift onto adjacent property.

#### **Fencing**

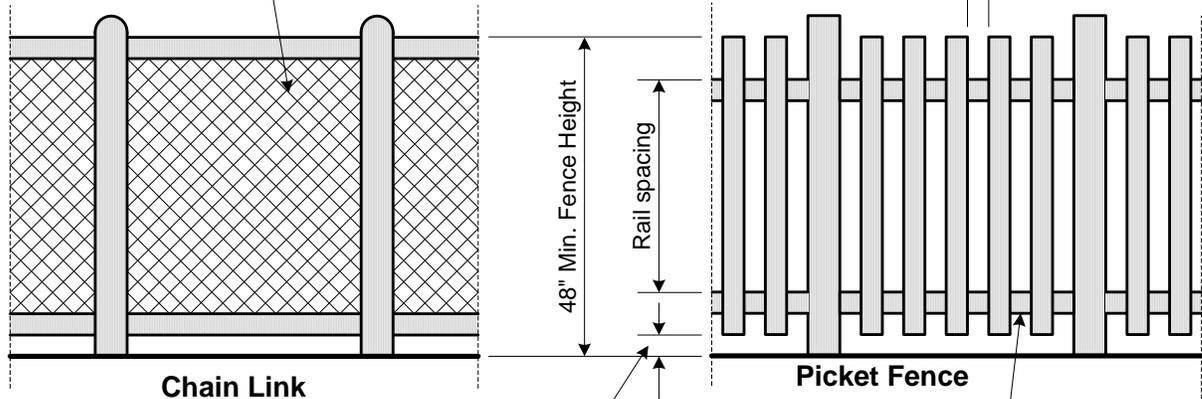
- Fences and gates installed.
- Doors from dwelling to pool area equipped with alarms.

#### **Plumbing and Electrical**

- No electrical convenience outlets within 10' of pool.
- GFI convenience outlet installed 10-20' from pool.
- Pool lights do not exceed 150 volts.
- Pool equipment, reinforcing and metal within 5' of pool bonded.
- PVC electrical conduit 18" below grade.
- Pool water filling devices protected from backflow.
- Underground gas pipes factory wrapped.
- Above ground gas pipe galvanized iron.

Chain link fences must be min. 11 gauge wire with openings no greater than 2-1/4 inches square

Maximum clear space between vertical pickets is 1-3/4". Distance may be increased to 4" provided the horizontal rails are spaced no closer than 45".



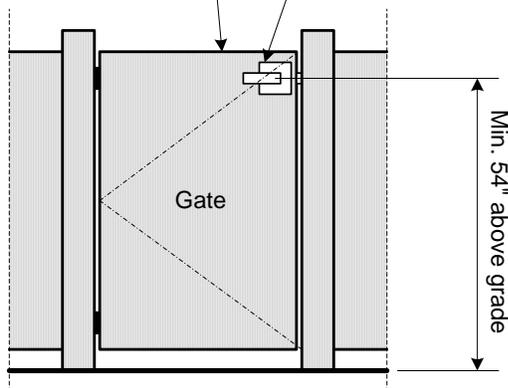
Max. clear space between bottom of fence and dirt is 2". Space may be increased to 4" provided fence is located over a hard paved surface.

Rails must be on pool side unless rail spacing exceeds 45"

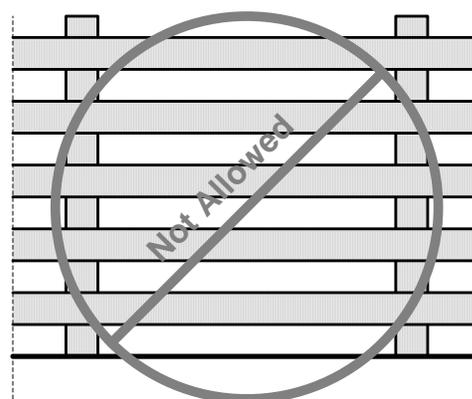
### Standard Fence Details

Gate construction must meet same dimensional standards as fences.

Release mechanisms for self latching device shall be located a minimum of 54 inches above adjacent grade unless located on pool side of gate. If release mechanism is located on pool side of gate it must be a minimum 3 inches below top of gate with no openings greater than 1/2 inch within 18 inches of the release mechanism.



**Gate Viewed From Outside Pool Area**



### Fences With Horizontal Members

Fences with only horizontal members can not be used as pool barriers