



**Building Division**  
12 Journey, Suite 100  
Aliso Viejo, CA 92656  
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[www.cityofaliso Viejo.com](http://www.cityofaliso Viejo.com)

# POOL & SPA REQUIREMENTS

1. Permit Application
2. Three (3) sets of plans containing the following:
  - a) Site Plan
    - Pool and Spa location on property, including house location on lot.
    - Show slopes (if applicable) or indicate lot is flat.
    - Show location and size of gas and electrical lines being run for the equipment and any BBQ, Fireplace, Firepit, etc.
    - Show set backs for pool and spa to property line (min. 3' to Property Line).
    - Show distance from pools edge to house (tempered glass is required for window(s) within 5').
  - b) Two (2) sets of structural plans/calculations.
3. Geotechnical Evaluation and recommendation.
4. Cooperative Imported Red Fire Ant Form (approved for movement of soil).
5. Pool Barrier Compliance Form (signed by the contractor *and* homeowner)
6. Home Owner's Association approval (Sub HOA *and* Master HOA).
7. Water Quality Permit \$192.00 fee. Requires a water quality inspection prior to starting construction (Best Management Practices must be in place prior to scheduling your inspection).
8. Encroachment Permit \$ 129.00 fee (not required for private streets). Requires a \$3,000.00 refundable bond. Contact Public Works at (949) 425-2536 for requirements.
9. Contact Dig Alert at (800) 227-2600 two (2) working days prior to digging.

## **Pool Location Per Approved Plan**

Measurements are taken from the inside wall of the pool or spa, therefore it must be set per approved plans prior to calling for the first inspection. Any change in location must be approved prior to inspection.

## **Pool Enclosure**

- 1) Every pool or spa must be enclosed with a perimeter fence measuring a minimum of five feet (5') in height, measured on the side of the fence opposite the pool.
- 2) If the fence is designed with the horizontal members separated by forty-five inches (45") or more, the opening between the vertical members may not exceed four inches (4").
- 3) If the fence is designed with the horizontal members separated by less than forty-five inches (45"), the opening between the vertical members may not exceed 1 3/4" and the horizontal members must be located on the pool side of the fence. When vertical spacing between such openings is 45 inches or more, the opening size may be increased but shall be < 4".
- 4) All access gates shall be self-closing and self-latching, with the latching device located a minimum of sixty inches (60") above grade, and the gates shall swing away from the pool area.



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- 5) All doors from the dwelling which serve as perimeter fences shall have flush-mounted door alarms or a separate fence must be installed between the dwelling and the pool. If there is a side door from the garage that leads to the pool area, it shall be self closing and self latching with the latch located a min. of 60" high.
- 6) Door alarms shall be flush mounted into walls and shall not have an on/off switch.

## **Construction Requirements**

All pool construction shall conform to expansive soil details unless a soils report indicates otherwise. Use surcharge details as necessary. Continuous inspection by a licensed special inspector is required on pools constructed of concrete.

## **Outdoor Equipment**

All mechanical equipment shall be set on a concrete base above grade. Have manufacturer's installation instructions available on the job site for inspection. The heater vent termination must be a minimum of four feet (4') from any door, window or gravity air inlet into any building measured from the closest edge of the vent. Clearance to any wall shall be per the manufacturer's installation instructions and listing. The heater must have working space at the access door. All pool equipment shall be setback a minimum of 3' from any property line. The subpanel shall have a minimum of 30" x 36" working clearance in front of it.

## **Plumbing**

PVC Plastic, schedule 40 pipe and fittings may be used for circulating piping systems. The entire system shall be tested and must hold a static water or air pressure test of not less than 35 psi for fifteen minutes. PVC water and air lines must be painted to protect them from ultraviolet rays. A thirty-six inch (36") minimum accessible pipe is required between the filter and the fossil fuel heater for the future addition of solar heating equipment. Plastic pipe and fittings designed to be joined by solvent cementing shall comply with appropriate IAPMO installation standards. A minimum of two outlets are required and must be separated by a minimum of three feet (3'). All outlets shall be covered by an anti-vortex cover per current code specifications. Any pool or spa over 750 gallons requires a minimum three inch (3") P-trap and a backwash line draining to the sewer system. Pools and spas using a cartridge filter may reduce the P-trap size to a minimum of 1 ½ " for drainage.

## **Gas Piping**

### *Metallic Pipe*

Due to the high sulfate soil, metallic pipe shall not be in direct contact with soil unless it is factory coated and being used as a transitional riser connected to P.E. piping.

### *Non-Metallic Pipe*

Non-metallic pipe must be approved PE pipe. Piping and tubing must be labeled with the designated IAPMO certification mark. PE pipe may not be used above ground. The transition from PE pipe to metallic pipe must be made with an approved installation fitting only and be installed in a horizontal position. The horizontal metallic portion of the riser must extend a minimum of thirty inches (30") before connecting to the PE pipe. Piping must be buried eighteen inches (18") below grade or twelve inches (12") below concrete. A pressure test is required and must hold 10 psi for fifteen minutes. A copper



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tracer wire (minimum #14 AWG) must be installed with PE gas piping. A gas shut-off valve is required outside of, and within three feet (3') of the heater.

## Electrical

Permanently installed pools and spas must have at least one 125-volt convenience receptacle located a minimum of six feet (6') from and not more than twenty feet (20') from the inside wall of the pool/spa and must be protected by a GFCI. A pool light must have a metallic forming shell connected to a pool light junction box with metallic or non-metallic raceway. Where rigid non-metallic conduit is used, a Number 8 insulated copper conductor must be installed. Junction boxes must be located four feet (4') minimum from the pool and eight inches (8") minimum above the flood level or ground level, whichever is greater. The pool light branch circuit and motor circuits must be GFCI protected. Light fixtures closer than five feet (5') horizontal from the pools edge must be a minimum of twelve feet (12') above the water level. If the light fixture is existing and less than 5' horizontally from the waters edge, it shall be GFCI protected.

All metal parts or components within five feet (5') of the inside wall of the pool or spa (including metal straps for posts, metal fences, window and door frames, etc.), shall be bonded with a Number 8 AWG unspliced solid copper conductor. All pool deck surfaces shall be bonded to the pool steel for a distance of not less than 3' extending out from the waters edge.

Electrical conduit may be a minimum schedule 40 PVC plastic if below grade. The conduit must be buried eighteen inches (18") below grade. The conduit must be UL listed. Above ground conduit may be PVC plastic (minimum schedule 80), or rigid galvanized steel.

All swimming pool/spas with fossil-fuel heaters must contain the following measures mandated by the State Energy Code:

- 7) System is certified with 78% thermal efficiency, on-off switch, weatherproof operating instructions, no electric resistance heating, and no pilot light.
- 8) System is installed with:
  - a. At least a thirty-six inch (36") pipe between the filter and heater for future solar heating.
  - b. Cover for outdoor pool or outdoor spa.

Pool system has directional inlets and a circulation pump time switch.

## References/General Information.

**General.** The provisions of this section apply to the design and construction of barriers for swimming pools located on the premises of Group R, Division 3 Occupancies, as defined in the 2010 California Building Code.

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

- 1) **ABOVE-GROUND/ON-GROUND POOL.** See definition of "swimming pool."
- 2) **BARRIER** is a fence, wall, building wall, or a combination thereof, which completely surrounds the swimming pool and obstructs access to the swimming pool.



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- 3) **GRADE** is the underlying surface such as earth or a walking surface.
- 4) **HOT TUB**. See definition of “swimming pool”.
- 5) **IN-GROUND POOL**. See definition of “swimming pool.”
- 6) **SEPARATION FENCE** is a barrier, which separates all doors of a dwelling unit with direct access to a swimming pool from the swimming pool.
- 7) **SPA**. See definition of “swimming pool.”
- 8) **SWIMMING POOL** is any structure intended for swimming or recreational bathing that is designed to contain water over 18 inches deep. This includes in-ground, aboveground and on-ground swimming pools; hot tubs; portable and non-portable spas; and fixed in-place wading pools.
- 9) **SWIMMING POOL, INDOOR**, is a swimming pool which is totally contained within a residential structure and surrounded on all four sides by walls of said structure.
- 10) **SWIMMING POOL, OUTDOOR**, is any swimming pool which is not an indoor pool.
  - a) Outdoor Swimming Pool Barriers. An outdoor swimming pool shall be provided and maintained with a barrier consistent with the following provisions:
    - 1) The top of the barrier shall be at least 60 inches above grade measured on the side of the barrier, which 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. The maximum vertical clearance at the bottom of the barrier may be increased to 4 inches when grade is a solid surface such as a concrete deck, or when the barrier is mounted on the top of the above ground pool structure. When barriers have horizontal members spaced less than 45 inches apart, the horizontal members shall be placed on the pool side of the barrier. Any decorative design work on the side away from the swimming pool, such as protrusions, indentations or cutouts, which render the barrier easily climbable, is prohibited.
    - 2) Openings in the barrier shall not allow passage of a 1-3/4 inch diameter sphere.

## **EXCEPTIONS:**

- k) When vertical spacing between such openings is 45 inches or more, the opening size may be increased such that the passage of a 4 inch diameter sphere is not allowed.
  - ii. For fencing composed of vertical and horizontal members, the spacing between vertical members may be increased up to 4 inches when the distance between the top of horizontal members is 45 inches or more.
- 3) Where the barrier is composed of diagonal members, such as a lattice fence, the maximum opening formed by the diagonal members shall be no more than 1-3/4 inch.



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- 4) Access gates shall comply with the requirements of Items (c) (1), (2), (3), and (4) above. Pedestrian access gates shall be self-closing and have a self-latching device. Where the release mechanisms of the self-latching device is located less than 60 inches from the bottom of the gate, (1) the release mechanism shall be located on the pool side of the barrier at least 3 inches below the top of the gate, and (2) the gate and barrier shall have no opening greater than ½ inch within 18 inches of the release mechanism. Pedestrian gates shall swing away from the pool. Any gates other than pedestrian gates shall be equipped with lockable hardware or padlocks and shall remain locked at all times when not in use.
- 5) Where a wall of a Group R, Division 3 Occupancy dwelling units serves as a part of the barrier and contains door openings between the dwelling unit and the outdoor swimming pool, the residence shall be equipped with exit alarms on those doors providing direct access to the pool.