



Community Development and Sustainability Department

Address, City, State ZIP

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SWIMMING POOL AND SPA CHECKLIST AND REGULATIONS

Submittal Checklist

1. Submit two plot plans on 8 ½ x 11-inch paper showing the following:
 - Actual setbacks from property lines, house and other structures, and
 - Location of a GFCI receptacle between 10 and 20 feet of the water's edge
 - Location and size of electrical panel
2. Submit two signed and sealed copies of steel schedule for pools or gunite spas.
3. Submit three copies of the design plans (pool plans) or manufacturer specifications for the spa/hot tub/dough boy with the wet signature of the person responsible for the plans. Spa information is to include electrical and/or gas requirements. Manufactured spas shall be listed.
4. Provide the following information;
 - Existing electrical service equipment (panel) size, and provide a load calculations to verify capacity.
 - Pool equipment schedule including manufacturer's specifications and listing information.
 - If a heater is to be installed, provide gas piping size and location.
 - If a solar heater is to be installed, provide manufacturer's installation instructions.
5. An encroachment permit from Public Works Department is required prior to issuance of a building permit for in ground pools. Encroachment Permits may be obtained from the Public Works Dept.

Swimming Pool and Spa Regulations

1. Any damage to public property (such as driveways approaches, sidewalks, etc.) must be repaired prior to final inspection.
2. The pool and/or spa shall be located a minimum of 5 ft. from property line and out of any easement.
3. New and existing glazing in walls used as a barrier for swimming pools and spas shall be safety glazing when the bottom edge of the glazing is less than 60 inches above the ground and the glazing is within five feet of the swimming pool or spa water's edge per the current California Building Code.
4. Automatic fill requires special backflow protection and annual testing by a certified backflow tester. (See link for current list of testers: <<LINK TO LIST>>)
5. Check the current California Electric Code for bonding grid specifications.
6. Swimming Pool Heating - Any new or replacement fossil-fueled (gas or electric) swimming pool heater system in a residential occupancy shall be equipped with all of the following:
 - A. An ON-OFF switch mounted on the outside of the heater for easy access
 - B. A permanent weatherproof plate or card, easily readable, giving instruction for the efficient operation of the swimming pool.
 - C. A length of plumbing (36" min.) between the filter and the heater to allow for future solar heating.
 - D. Outdoor pools/spas equipped with a fossil fuel or electric heater shall also be equipped with a pool/spa cover.

California Energy Code Regulations

1. **A CF2R is required to be completed by the installer (2013 CF2R-PLB-03-E).** A simplified version of the form can be obtained at the Building Division website.
<<LINK TO FORM>>
2. A readily accessible on-off switch, mounted on the outside of the heater that allows shutting off the heater without adjusting the thermostat setting.
3. A permanent, easily readable, and weatherproof plate or card that gives instruction for the energy efficient operation of the pool or spa heater and for the proper care of pool or spa water when a cover is used.
4. No electric resistance heating.
EXCEPTION 1 to Section 110.4(a)4: Listed package units with fully insulated enclosures, and with tightfitting covers that are insulated to at least R-6.
EXCEPTION 2 to Section 110.4(a)4: Pools or spas deriving at least 60 percent of the annual heating energy from site solar energy or recovered energy.
5. At least 36 inches of pipe shall be installed between the filter and the heater or dedicated suction and return lines, or built-in or built-up connections shall be installed to allow for the future addition of solar heating equipment.
6. A cover for outdoor pools or outdoor spas that have a heat pump or gas heater.
7. The pool shall have directional inlets that adequately mix the pool water and a time switch shall be installed as part of a pool water circulation control system that will allow all pumps to be set or programmed to run only during the off-peak electric demand period and for the minimum time necessary to maintain the water in the condition.
8. Filtration pumps shall be sized, or if programmable, shall be programmed, so that the filtration flow rate is not greater than the rate needed to turn over the pool water volume in 6 hours or 36 gpm, whichever is greater.
9. Pump motors used for filtration with a capacity of 1 hp or more shall be multi-speed and each auxiliary pool load shall be served by either separate pumps or the system shall be served by a multi-speed pump.
EXCEPTION to Section 150.0(p)1E: Pumps less than 1 hp may be single speed.
10. Multi-speed pumps shall have controls which default to the filtration flow rate when no auxiliary pool loads are operating.
11. For multi-speed pumps, the controls shall default to the filtration flow rate setting within 24 hours and shall have an override capability for servicing.
12. A length of straight pipe that is greater than or equal to at least 4 pipe diameters shall be installed before the pump.
13. Pool piping shall be sized so that the velocity of the water at maximum flow for auxiliary pool loads does not exceed 8 feet per second in the return line and 6 feet per second in the suction line.
14. All elbows shall be sweep elbows or of an elbow-type that has a pressure drop of less than the pressure drop of straight pipe with a length of 30 pipe diameters.
15. Minimum diameter of backwash valves shall be 2 inches or the diameter of the return pipe, whichever is greater.

Pump sizing and flow rate.

All pumps and pump motors installed shall be listed in the Commission's directory of certified equipment and shall comply with the Appliance Efficiency Regulations.

All pump flow rates shall be calculated using the following system equation:

$$H = C \times F^2$$

WHERE:

H is the total system head in feet of water.

F is the flow rate in gallons per minute (gpm).

C is a coefficient based on the volume of the pool:

0.0167 for pools less than or equal to 17,000 gallons.

0.0082 for pools greater than 17,000 gallons

Fencing, Barriers, and Safety Regulations

The City of Davis has adopted the California Health & Safety Code Section known as the Swimming Pool Safety Act. The following are the local amendments found in City of Davis Municipal Code section 8.01.070:

Section 115922(a) is hereby amended to read:

- (a) Commencing on January 1, 2007, except as provided in Section 115925, whenever a building permit is issued for construction of a new pool or spa, or any building permit is issued for remodeling a pool or spa, at a private, single family home, the pool shall be isolated from access from other properties by an enclosure that meets the requirements of Section 115923. The pool or spa shall also be equipped with at least one of the following four drowning prevention safety features:
- (1) The pool shall incorporate removable mesh pool fencing that meets American Society for Testing and Materials (ASTM) Specifications F 2286 standard in conjunction with a gate that is self-closing and self-latching and can accommodate a key lockable device.
 - (2) The pool shall be equipped with an approved safety pool cover that meets all the requirements of the ASTM Specifications F 1346.
 - (3) The residence shall be equipped with exit alarms on those doors providing direct access to the pool.
 - (4) All doors providing direct access from the home to the swimming pool shall be equipped with a self-closing, self-latching device with a release mechanism (door knob or handle) placed no lower than 54 inches above the floor.
- (b) Prior to filing any pool with water of permitted construction or remodeling work, the local building code official shall inspect the drowning safety prevention devices required by this act and if no violations are found shall give approval.

Self-Closing, Self-Latching Gates Regulations

SWING GATE AWAY FROM POOL

