



## POOL & SPA PLAN REQUIREMENTS

1. Provide **three site plans** drawn to scale showing:
  - Name, address, phone number for: owner, plan preparer and Engineer (with signature).
  - Site address.
  - Property lines; show easements if applicable.
  - Proposed pool and or spa; show shape, dimensions and location to show setbacks and clearances from existing and proposed structures. Show setback to property line from water's edge. (setbacks requirements are site specific, verify with Planning Division).
  - Existing and proposed structures.
  - Topography of site indicating tops and bottoms of slopes (if any) on and adjacent to site. Provide two site-specific cross-sections of the pool, which includes P/L, any slopes, and structures. Portions of the pool wall within a horizontal distance of 7ft from the top of slope shall be capable of supporting the water in the pool without soil support. Section 1808A.7.3 CBC.
  - Pool barrier, fencing, and gate location meeting minimum requirements
  - Show climbable structures within 5ft of P/L on adjacent properties.
  - Pool/spa equipment (minimum of 4' to building openings).
  - Indicate overhead utilities and electrical service drops or specify underground utilities.
2. Provide **two sets of structural plans**. Each sheet of structural pool plans shall be **wet stamped and signed** by a licensed Civil, Structural Engineer or Architect. The Engineer or Architect shall indicate (highlight) all sections and details applicable to the project and cross reference details on the pool plan to indicate applicable locations. Pools and spas shall be designed for **expansive soils**, unless exempted per a soils report. Structural calculations shall include all surcharges from slopes and/or adjacent structures.
3. Provide a site drainage plan; Identify hardscapes, lawns, planting areas, etc. Show spot elevations to indicate proper drainage in all areas (1% for paved areas, 2% for unpaved). Use arrows to indicate drainage flow and show location(s) of area drains.
4. Provide safety glazing in fences, doors, and windows, where glass is located within 5ft from edge of pool/spa and less than 60" above grade.



5. All exterior receptacles must be GFCI protected; at least one(1) receptacle shall be located a minimum of 6ft from and not more than 20ft to inside wall of pool. Section 680.22 CEC. FYI: outlets supplying pool motors are required to be GFCI.
6. Show basic location of underground electric and gas; include point of connections, termination and size and types of materials.
7. **Imprint on plans the pool & spa barrier requirements, energy requirements, and BMP's.**
8. **Notes on site plan:**
  - A) Per Section 1704 and 1705 CBC. **Special Inspection** shall be required for the placement of shotcrete and gunite or for greater than 2500 psi concrete; **the Special Inspector shall be registered with the city prior to commencement of special inspection.**
  - B) **For Pre Plaster inspection provide:**
    - All deputy reports (including any break tests).
    - Backflow preventer certification for RP Valves.
    - Contractor's sub-list. (verified by City Clerk's office).
    - Water conserving form / certificate.
    - Smoke detector and Carbon Monoxide Certificate or allow for inspection.
  - C) The person making or causing an excavation to be made shall provide written notice to owners of adjoining buildings advising them that the excavation is to be made and that the adjoining buildings should be protected. Said notification shall be delivered no less than 10 days prior to the scheduled starting date of the excavation. Section 3307.1 CBC.



## REQUIREMENTS FOR POOL ENCLOSURES AND SAFETY FEATURES

**Swimming pool or Pool** means any structure intended for swimming or recreational bathing that contains water over 18" inches deep. "**Swimming Pool**" includes in-ground and aboveground structures and includes but it is not limited to hot tubs, spas, portable spas, and nonportable wading pools.

When a building permit is issued for the construction of a new swimming pool or spa or the remodeling of an existing swimming pool or spa at a private single-family home, the respective **swimming pool or spa shall be equipped with at least two** of the following seven drowning prevention safety features:

- (1) An enclosure that meets the following requirements :
  - Any access gates through the enclosure open away from the pool and are self-closing with a self-latching device placed no lower than 60 inches above ground.
  - A minimum height of 60 inches.
  - A maximum vertical clearance from the ground to the bottom of the enclosure of 2 inches.
  - Gaps or voids, if any, do not allow passage of a sphere equal or greater than 4 inches in diameter.
  - An outside surface free of protrusions cavities or other physical characteristics that would serve as handholds or footholds that could enable a child below the age of five years to climb over.
- (2) Removable mesh fencing that meets American Society for Testing and Materials (ASTM) Specifications F2286 standards in conjunction with a gate that is self-closing and self-latching and can accommodate a key lockable device.
- (3) An approved safety pool cover, as define in the CBC section 3109.
- (4) Exit alarms on the single-family home's doors that provide direct access to the swimming pool or spa. The exit alarm may cause either an alarm noise or a verbal warning, such as a repeating notification that "the door to the pool is open".
- (5) A self-closing, self-latching device with a release mechanism placed no lower than 54 inches above the floor on the private single-family home's doors providing direct access to the swimming pool or spa.
- (6) An alarm that, when placed in a swimming pool or spa will sound upon the detection of accidental or unauthorized entrance into the water.
- (7) Other means of protection, if the degree of protection is afforded is equal to or greater than the afforded by any of the features set forth above and has been independently verified by an approved testing laboratory as meeting the standards for those features required by this section and, if no violations are found, shall give final approval.

Before issuance of a final approval for the completion of permitted construction or remodeling work, the local building inspector shall inspect the drowning safety prevention features required by this section and, if no violations are found, shall give final approval.

**In addition to the two drowning prevention features required above, an enclosure that separates the pool and spa from neighboring properties and meet the requirements of enclosure (1) shall be install.**



## STATE ENERGY REGULATIONS FOR RESIDENTIAL SWIMMING POOLS

**All new or replacement gas or electric swimming pool heating systems must meet the following requirements** per California Administrative Code, Title 24, Part 6, Section 110.4 MANDATORY REQUIREMENTS FOR POOL AND SPA SYSTEMS AND EQUIPMENT.

**1. Certification by manufacturers.** Any pool or spa heating system or equipment may be installed only if the manufacturer has certified that the system or equipment has all of the following:

- A) **Efficiency.** A thermal efficiency that complies with the Appliance Efficiency Regulations; and
- B) **On-off switch.** A readily accessible on-off switch, mounted on the outside of the heater that allows shutting off the heater without adjusting the thermostat setting; and
- C) **Instructions.** A permanent, easily readable and weatherproof plate or card that gives instructions for the energy efficient operation of the pool or spa heater and for the proper care of the pool and/or spa water when a cover is used; and
- D) **Electric resistance heating.** No electric resistance heating; and

**Exception 1 to section 110.4(a) 4:** Listed package units with fully insulated enclosures, and with tight fitting 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 from site solar energy or recover energy.

**2. Installation.** Any pool or spa system or equipment shall be installed with all of the following:

- a) **Piping.** 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; and
- b) **Covers.** A cover for the outdoor pools or outdoor spas that have a heat pump or gas heater.
- c) **Directional inlet and time switches for pools.** If the system or equipment is for a pool:
  - i. The pool shall have directional inlets that adequately mix the pool water; and
  - ii. A time switch or similar control mechanism shall be installed as part of a water circulation control system that will allow all pumps to be set or programmed to run only during off-peak electric demand period, and for the minimum time necessary to maintain the water in the condition required by the applicable public health standards.



## BMP'S

**Erosion** occurs when soil particles are displaced by raindrops, moving water and/or wind. Common erosion factors include: (1) Splash erosion – the dislodging of soil particles by raindrop impact; (2) Sheet-flow erosion – the uniform removal of saturated soil particles by overland flow; (3) Rill erosion - occurs when water flow creates long, narrow depressions in the ground; (4) Gully erosion – occurs when water flow creates deep and wide depressions in the ground; (5) Streambank erosion – occurs when water in a natural drainage channel creates bank sloughing; (6) and Wind erosion – occurs when wind passes over exposed soil areas removing small particulates.

**Erosion Control:** When soils are exposed due to site grubbing, grading and/or other activities the site owner / operator must install appropriate erosion control materials. Common practices to reduce the risk of erosion include:

- a) **Vegetative Soil Cover:** (1) Maintain natural soil cover (*vegetation*), (2) Maintain natural perimeter vegetation, (3) Plant temporary vegetation, (4) Plant temporary perimeter vegetation, (5) Maintain site bushes & trees, (6) **Limiting site disturbance** (*Only disturbed those soil areas necessary to effectuate construction*).
- b) **Non-Vegetative Methods:** Utilize: (1) Stone, (2) Mulch, (3) Matting, (4) Intercept runoff (*fiber rolls*), (5) Flow control (*fiber rolls, proper grading*), (6) Velocity Control (*fiber rolls, velocity dissipaters*), (7) Plastic covering, (8) Hydroseeding mixes, (9) and etcetera.
- c) **Dust Control:** All sites with exposed soils must be concerned with limiting, if not eliminating air borne dust at all times. There are many Best Management Practices that can be implemented to prevent dust emission.
- d) **Stabilized Construction Entrance / Exit (SCEE):** All sites that include significant grading activities require the use of a SCEE in accordance with Caltrans / CASQA standards (*i.e. Shaker plates &/or 3" – 6" aggregate material*) to eliminate sediment track-out.
- e) **Stockpile Management:** All stockpiles of compost, dirt, sand, sediment, soil and etcetera must be covered or stabilized when not in active use. Also, stockpiles must be surrounded by wattles or gravel bags.

**Sediment Control:** Sediment control is a practice or device designed to keep eroded soil on a construction site, so that it does not wash off and cause water pollution. Sediment controls are generally designed to be temporary measures. Common sediment controls include perimeter control, slope control and/or velocity control measures. Devices utilized include: graduated silt fencing, gravel bags, silt fencing and/or straw wattles. Sediment control also includes routine sidewalk and street sweeping activities.

**Good Housekeeping Practices:** Sites must be kept in an orderly and clean manner at all times.

**Washouts:** All sites must include a designed lined washout for residual concrete, plaster, paint, stucco and etcetera. These devices must be lined with 10ml plastic, covered before and during storm events and replaced when ½ full.



**Chemical / Fuel Storage:** The storage of chemicals and/or fuels on site requires the use of secondary containment devices, placement on paved surfaces and covered at all times except when in use. Never store within a storm water flow path.

**Waste Management:** All sites must include trash and recycling receptacles with lids and/or covers. These must remain closed at all times except during loading and servicing. Pick up loose trash daily. **Portable restroom facilities** must include secondary containment and never placed within the flow line to a storm drain inlet and/or waterway.

**Spill Management:** All sites must include a spill management plan. Simply spills and discharges of any material including: chemicals, concrete, oils, paints, slurry and etcetera must be cleaned up immediately and disposed of in a proper manner. Spills shall not be washed into the drainage system.

**WPCP:** All sites not requiring a SWRCB WDID# / SWPPP require the development, submittal and implementation of a Water Pollution Control Plan. A template WPCP can be found within the *“City of San Marcos Supplement to the 2015 Standard Specifications for Public Works Construction “Greenbook.”*

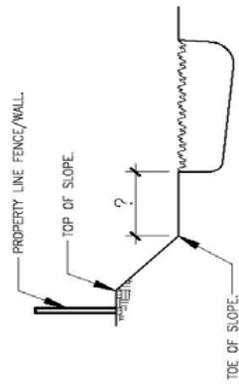
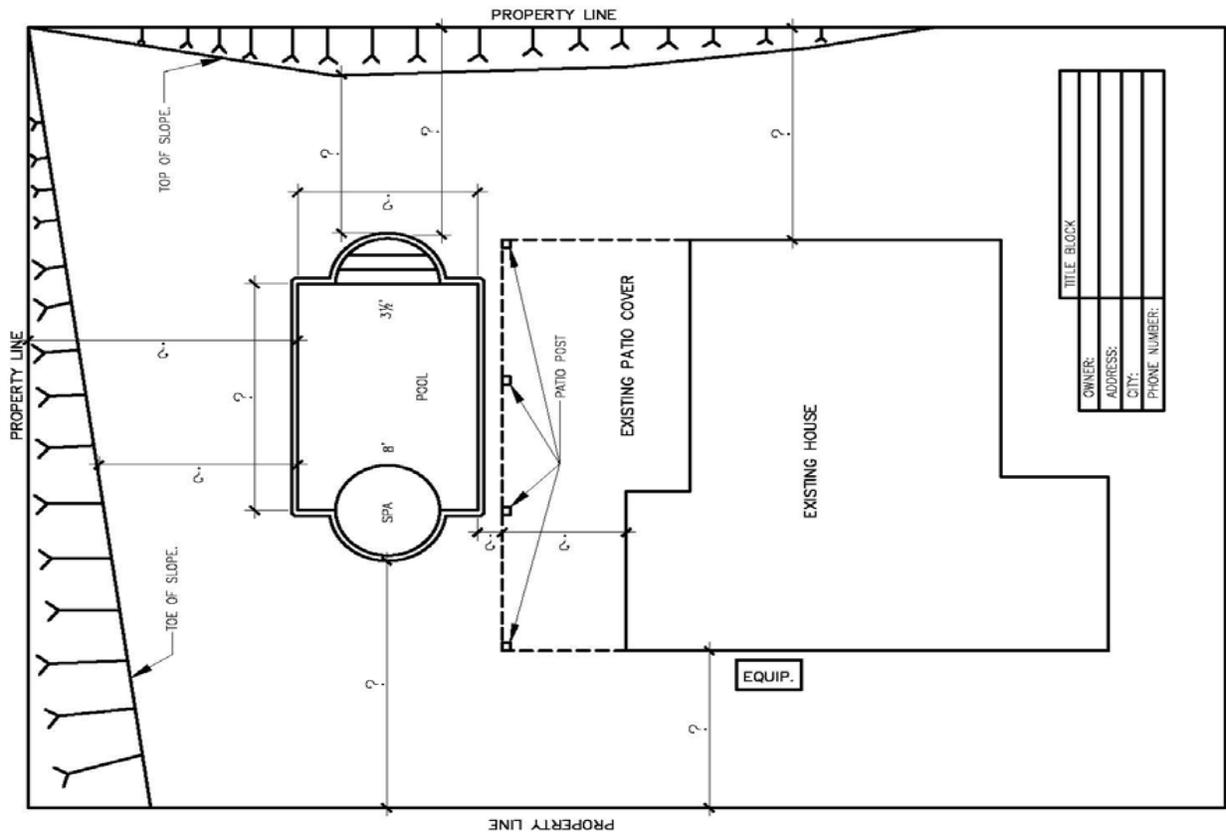
It is the responsibility of the project owner, site operator and all staff to comply with local and state water quality regulations at all times. For additional information visit the following websites:

- Ca Construction General Permit:  
[www.waterboards.ca.gov/water\\_issues/programs/stormwater/gen\\_const.shtml#const\\_permit](http://www.waterboards.ca.gov/water_issues/programs/stormwater/gen_const.shtml#const_permit)
- California Stormwater Quality Association [www.casqa.org/](http://www.casqa.org/)
- City’s Stormwater Permit, JRMP & WQIP [www.projectcleanwater.org/](http://www.projectcleanwater.org/)

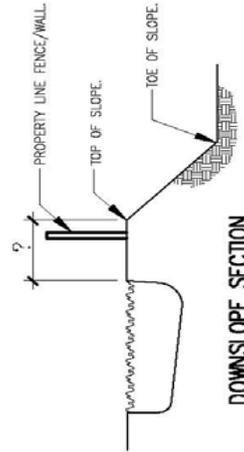


SWIMMING POOL SITE PLAN EXAMPLE

1. DRAW CROSS-SECTIONS AS SHOWN IN BELOW.
2. SHOW DIMENSION FROM POOL/SPA DECK TO TOP OR TOE OF SLOPE.
3. SHOW COMPLETE OUTLINE OF ALL EXISTING STRUCTURES AND DISTANCE OF THEM TO POOL/SPA.
4. GIVE THE HEIGHT OF SLOPES, WALLS, SLOPES AND OTHER STRUCTURES.
5. GIVE THE DIMENSIONS OF THE POOL AND SPA (LENGTH AND WIDTH).
6. SHOW LOCATION OF POOL EQUIPMENT.
7. DISTANCE FROM POOL/SPA TO PROPERTY LINES.
8. DISTANCE FROM POOL/SPA TO EXISTING HOUSE.
9. INDICATE DEPTHS OF POOL/SPA AND LOCATION OF ANY OTHER WATER FEATURES. (EXAMPLE) ROCK WATERFALLS, SLIDE, GROTTOES.
10. **INDICATE ANY OTHER ITEMS REQUIRED BY YOUR CITY, CALL YOUR CITY BEFORE STARTING AND ASK FOR THEIR SITE PLAN REQUIREMENTS.**
11. PROVIDE A TITLE BLOCK AS SHOWN.



**UPSLOPE SECTION**



**DOWNSLOPE SECTION**