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Residential Bathroom Requirements (2016 CBC, CPC, CEC, Green Standards and Energy Code)

### **Building Requirements – 2016 CBC (Section 2509)**

- In wet areas such as all forms of shower surrounds only glass mat waterresistant gypsum backing panels (Dens Shield Tile Backer), discrete
  nonasbestos fiber- cement interior substrate sheets (Hardiebacker) or
  nonasbestos fiber-mat reinforced cement substrate sheets (Wonder board,
  Durock) may be used as the base for tile. All products require specific installation
  hardware and instructions.
- Water resistant gypsum backing board (Green Board) cannot be used where there will be direct exposure to water or in areas subject to continuous high humidity. It cannot be used on ceilings where the framing members exceed 12" on center for ½" of 16" on center for 5/8" material.
- Regular gypsum board may be used as a tile or wall panel backer in other than
  wet locations or areas of continuous high humidity.

#### Plumbing Requirements- 2016 CPC

- The shower drain and trap shall be 2" minimum.
- The shower compartment shall have a minimum interior dimension of 1024 square inches. The compartment shall be configured so that a 30" circle will fit within. The water tight compartment shall be a minimum of 70 inches in height from the floor drain. If shower doors are used a minimum of a 22" unobstructed egress opening shall be provided.
- A site fabricated shower pan shall be water tight, constructed of approved materials, adequately reinforced and shall have an approved flange floor drain. The lining shall be pitched at a minimum of ½" per foot to weep holes in the drain. In no case shall the dam or threshold be less than 2" or more than 9" in depth when measured from the top of the dam or threshold to the top of the drain.

### Plumbing Requirements – 2016 CPC (continued)

- A site fabricated shower pan shall be tested and inspected prior to the finished surface being installed. The drain shall be plugged and the pan shall be filled to the upper edge of the dam.
- Shower control mixing valves shall be pressure balance, thermostatic, or combination pressure balance/thermostatic mixing valve type.
- Whirlpool bathtubs shall have a removable panel provided to provide for access and removal of the pump. Under floor access shall be located no more than 20' from an access door, rap door or crawl hole.
- A toilet flange installation requires a minimum 15" center line with 30" clear. 21" must be provided from the front of the toilet bowl to the nearest obstacle.

## Electrical Requirements – 2016 CEC and California Energy Code

- At a minimum one receptacle shall be installed within a residential bathroom within 3' of the sink and on the wall adjacent to the sink or on je side or face of the sink cabinet.
- The bathroom receptacles shall be installed on a 20-ampere branch circuit that is dedicated to only bathroom receptacles or dedicated to the receptacles and lighting within a single bathroom only.
- Ground-fault circuit interruption protection is required for all bathroom receptacles.
- Receptacles may not be installed within or directly over a bathtub or shower stall.
- Permanently installed light fixtures shall be high-efficacy luminaries (fluorescent/led). Low-efficacy luminaries (A type/halogen) are allowed if they are controlled by a manual-on occupancy sensor. Sensors may have a time delay of no more than 30 minutes after the last detected motion. Sensors cannot have an override allowing the light fixture to be continuously on.
- High-efficacy and low-efficacy light fixtures must be controlled separately.
- Exhaust fans with integral lighting require separate switched for each function or have the lighting system that can be manually turned on and off while allowing the fan to continue to operate for an extended period of time. Lighting integral to fans must be high-efficacy.

 A permanently installed night light must be high-efficacy or the night light must be rated to consume no more than 5 watts of power and does not contain a medium screw-base socket.

# **Ventilation Requirements – 2016 Green Standards Code**

- Each bathroom shall be mechanically ventilated. Fans shall be Energy Star compliant and ducted to terminate outside the building. A bathroom is considered a room which contains a bathtub, shower or tub/shower.
- Unless functioning of a component of the whole house ventilation system, fans must be controlled by a humidity control (humidistat)
- Humidity controls shall be capable of adjustment between a relative humidity range of ≤50 percent to a maximum of 80 percent. A humidity control may utilize manual or automatic means of adjustment.
- A humidity control may be a separate component to the exhaust fan and is not required to be integral.