



Building Department
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RESIDENTIAL BATHROOM REMODEL

INTRODUCTION

Bathroom renovations generally require a Building permit. The following information can be used as a guideline for the bathroom requirements:

CODES: All work shall comply with the 2019 Editions of the California Residential Code, California Plumbing Code, California Mechanical Code, California Electrical Code, California Energy Efficiency Standards, California Green Building Standards, and The City Aliso Viejo local ordinances.

A bathroom renovation includes *relocation* of vanity cabinets, sinks, water closet, tub & showers, replacement/changes to the lighting or removal & replacement of the wall board. Replacement of the towel bars, mirrors, paint and floor coverings, where no other work is included is considered a maintenance item and no permit is required.

The following details the minimum requirements of the bathroom renovation including the electrical, mechanical and plumbing systems:

Safety Glazing is required for all glazing located less than 60 inches above the standing or walking surface located within 60 inches, measured horizontally and in a straight line from the water's edge of the tub or shower.

ELECTRICAL

- Provide a 20 AMP GFCI protected electrical outlet within 3' of the outside edge of each bathroom sink basin. Outlet shall be located on a wall or partition that is adjacent to the basin or installed on the side or face of the basin cabinet not more than 12" below the countertop.
- A minimum of (1) 20 AMP circuit is required for bathrooms. Such circuits shall have no other outlets. This circuit may serve more than one bathroom. CEC 210.11(C)(3)
- Light fixtures shall not be located within a zone of 3' horizontally and 8' vertically from the top of the bathtub rim or shower. CEC 410.10(D)
- Luminaires located within the actual outside dimension of the tub or shower, up to 8 feet vertically from the top of the bathtub rim or shower threshold, shall be marked for damp locations, provided with a solid lens and be GFCI protected.
- Bathroom lighting shall be high efficacy luminaries (40 lumens per watt) or controlled by a vacancy (occupancy) sensor certified to comply with sec 119(d) CEES. This is a manual on, auto off device. Automatic on or devices with an override switch position are not approved 150.0(K)2C. High efficacy, incandescent lighting or fans are required to be switched separately. At least one (1) high efficiency luminaire shall be provided in each bathroom per 2019 CEES 150
- Recessed luminaries installed in an insulated ceiling shall be IC rated (zero clearance) and AT rated (air tight) and shall be sealed and/or gasketed between ceiling and housing. For occupancies with a horizontal (floor/ceiling assembly) rated separation, the recessed fixtures shall be protected to the rating of the separation (1 hour) or be listed for the required protection. This generally applies to residential condominium construction where units are above or below other units. 150.0(K)1C

MECHANICAL

- A bath exhaust fan w/ back draft damper is required regardless of the presence of a window. Exhaust must vent to outdoors in an approved duct. Terminate the outlet a minimum of 3' from an opening or property line. CMC 402.5. A minimum rate of 50 cfm and a maximum of 3 zone rating are required.



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- Exhaust fans shall be energy star compliant. Unless the bathroom exhaust fan is part of the Whole House Ventilation System, fans must be controlled by a humidistat which shall be readily accessible. Humidistat controls shall be capable of adjustment between the relative humidity ranges of 50 to 80 percent. A humidity control may be a separate component to the exhaust fan. For the purpose of this section, a bathroom is a room that contains a bathtub, shower, or tub/shower combination. CGBS 4506.1

PLUMBING

- Provide tempered glass at tub/shower doors and at windows less than 60" from tub/shower drain
- Shower and Tub/shower control valves shall be pressure balancing / thermostatic per CPC 408.3
- Multiple showerheads serving one shower, the combined flow rate of all the showerheads shall not exceed the maximum flow rate specified in the 20% reduction column contained in CGBS 4.303 or the shower shall be designed to allow one showerhead to be in operation at a time.
- Fixtures shall meet the following maximum flow rates:
Water Closets = 1.28 GPM - Shower Heads = 2.0 GPM - Kitchen Sink Faucets = 1.8 GPM.
- Minimum shower size is 1024 square inches (30" circle) CPC 408.6
- Site built shower stalls shall comply with CPC 408.6
- Stall shower door to open out a minimum of 22" wide opening. CPC 408.5
- Water closet and/or Bidet require a total minimum 30" clear space, 15" from the center of the fixture to the wall, and a minimum of 24" clear space in front of the fixture. CPC 402.5
- When additional water closets (toilets) are installed, a maximum of 3 water closets are allowed on a 3" waste line.
- The hot water valve shall be installed on the left side. CPC 417.5
- A minimum 12" x 12" access panel is required when a slip joint p-trap waste & overflow is provided.

WHIRLPOOL/SPA

- Whirlpool (spa) bathtubs shall have a readily accessible access panel. CPC 409.6
- The circulation pump shall be located above the crown weir of the trap. CPC 409.6
- The pump and the circulation piping shall be self-draining to minimize water retention. CPC 409.6
- Suction fittings on whirlpool bathtubs shall comply with the listed manufacturer's specifications CPC 409.6
- The maximum hot water temperature discharging from the bathtub filler is limited to 120° by a device that conforms to ASSE 1070 or CSA B125.3. The water heater thermostat shall not be considered a control for meeting this provision. CPC 409.4
- Accessible disconnects and GFCI protection is required for the whirlpool (spa) pump, aerator and heater. CEC 210.8

BIDETS

- The water supply shall be protected with an air gap or vacuum breaker. CPC 410.2
- The maximum hot water temperature discharging from a bidet is limited to 110° by a device that conforms to ASSE 1070 or CSA B125.3. The water heater thermostat shall not be considered a control for meeting this provision.