Residential Bathroom Remodel

County of Orange

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INTRODUCTION

Bathroom remodels generally require permits. The following information can be used as a guideline for the bathroom requirements. Bathroom remodels require compliance with the following:

- 2010 California Residential Code (CRC)
- 2010 California Electric Code (CEC)
- 2010 California Plumbing Code (CPC)
- 2010 California Energy Code (CEnC)
- 2010 California Mechanical Code (CMC)

A bathroom remodel includes the removal and replacement and/or relocation of vanity cabinets, toilets, sinks, tubs & showers, replacement/changes to the lighting or removal & replacement of the wallboard. The 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 for these items.

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

ELECTRICAL

- Provide a 20 AMP GFCI protected electrical outlet within 36” 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.
- Receptacles shall be listed as tamper-resistant.
- A minimum of one (1) 20-amp circuit is required for bathrooms. Such circuits shall have no other outlets. This circuit may serve more than one bathroom. [CEC 210.52(d)]
- No pendant light fixtures in zone, 3 ft. away and 8 ft above the bathtub or shower. [CEC 410.10(d)]
- Luminaries located within the actual outside dimensions of the tub or shower, up to 8 feet vertically from the top of the bathtub rim or shower threshold, shall be marked as suitable 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 manual-on occupancy sensor certified to comply with Section 119(d) of CEnC. This is a manual on, auto off device. Automatic on or devices with an override switch position are not approved. High efficacy, incandescent (low efficacy) lighting or fans are required to be switched separately.
- 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 applied to residential condominium construction where units are above or below other units.

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 ft from an opening or property line. [CMC 504.5] A minimum rate of 50 cfm is required. Fan shall meet ASHRA standard 62.2. A maximum of 3 sone rating is required.

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. [CPC 418.0]
- Fixtures shall meet the following maximum flow rates: [CPC402.2]
    - Water Closets = 1.6 GPM – Shower Heads = 2.5 GPM – Sink Faucets = 2.5 GPM

- Minimum shower size is 1024 square inches (30” circle). [CPC 411.7]
- Site built shower stalls shall comply with CPC 411.8.
- Stall shower door to open out a min. of 22” wide opening. [CPC 411.6]
- Toilet 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 407.6]
- 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 415.0]
- A minimum 12” x 12” access panel is required when a slip joint p-trap waste & overflow is provided.

WHIRLPOOL/SPA TUBS

- Whirlpool (spa) bathtubs shall have a readily accessible access panel. [CPC 414.1]
- The circulation pump shall be located above the crown weir of the trap. [CPC 414.2]
- The pump and the circulation piping shall be self-draining to minimize water retention. [CPC 414.3]
- Suction fittings on whirlpool bathtubs shall comply with the listed standards. [CPC 414.4]
- The maximum hot water temperature discharging from a bidet is limited to 110 degrees by a device that conforms to ASSE 1070, *Standard for Water Temperature Limiting Devices*, or CSA B125.3, *Standard for Plumbing Fittings*. The water heater thermostat shall not be considered a control for meeting this provision.

BIDETS

- The water supply shall be protected with air gap or vacuum breaker. [CPC 603.2]
- The maximum hot water temperature discharging from a bidet is limited to 110 degrees by a device that conforms to ASSE 1070, *Standard for Water Temperature Limiting Devices*, or CSA B125.3, *Standard for Plumbing Fittings*. The water heater thermostat shall not be considered a control for meeting this provision.

SMOKE ALARMS & CARBON MONOXIDE ALARMS:

In single family residences and multi-family residences (townhomes, condominiums, and apartments), installation of smoke alarms and carbon monoxide alarms is required prior to the final inspection as follows:

Smoke Alarms: When the value of the work exceeds $1,000, smoke alarms approved and listed by the State Fire Marshal must be installed, if they do not already exist, in each sleeping room, outside each separate sleeping area, in the immediate vicinity of the bedrooms, and on each additional story of the dwelling. In existing buildings, alarms may be solely battery operated where alterations or repairs do not result in the removal of interior walls or ceiling finishes exposing the structure, unless there is an attic, crawl space or basement available which could provide access for building wiring without the removal of interior finishes. Where more than one smoke alarm is required to be installed, the alarms shall be interconnected in such a manner that the activation of one alarm will activate all of the alarms in the individual unit, except where alterations or repairs do not result in the removal of interior wall or ceiling finishes exposing the structure, unless there is an attic, crawl space or basement available which could provide access for interconnection without the removal of interior finishes. The alarms shall be clearly audible in all bedrooms over background noise levels with all intervening doors closed. Refer to CRC Section R314.

Carbon Monoxide Alarms: When the value of the work exceeds $1,000, an approved and listed carbon monoxide alarm shall be installed if they do not already exist in existing dwellings or sleeping units that have attached garages or fuel-burning appliances as follows: outside each separate dwelling unit sleeping area in the immediate vicinity of bedrooms and on every level of dwelling unit, including basement. In existing dwelling units a carbon monoxide alarm is permitted to be solely battery operated where repairs or alterations do not result in the removal of wall and ceiling finishes or there is no access by means of attic, basement or crawl space. Where more than one carbon monoxide alarm is required to be installed, the alarms shall be interconnected in a manner that activation of one alarm shall activate all of the alarms in the individual unit, except where repairs do not result in the removal of wall and ceiling finishes, there is no access by means of attic, basement or crawl space, and no previous method for interconnection existed. See CRC Section R315 for additional information.