BATHROOM REMODEL - RESIDENTIAL

A permit is required for bathroom remodels that include the removal & replacement and/or relocation of vanity cabinets, toilets, sink, tubs/showers, replacement/alteration to the electrical, or removal & replacement of the wallboard. A permit is not required for the replacement of the towel bars, mirrors, paint, and floor covers where no other work is included because they are considered to be maintenance items. If a permit is required, it must be obtained prior to the start of the remodel. This handout is for information & reference only and is not a substitute for plans prepared for each project.

The following is a list of the general requirements based on the 2022 California Residential Code (CRC), 2022 California Mechanical Code (CMC), 2022 California Electrical Code (CEC), 2022 California Plumbing Code (CPC), 2022 California Energy Code (CEnC), 2022 California Green Building Standards Code (CalGreen), and the California Civil Code. Contact the Building & Safety Division for any questions or additional information, including requirements for new/altered plumbing (water, sewer, or gas lines) or mechanical (bathroom exhaust fan).

Safety Glazing (i.e., tempered) Windows in Bathrooms [CRC 308.4.5]

- Windows in any portion of a wall enclosing tubs and/or showers where the bottom edge of the glazing is less than 60 inches above the standing surface.
- Windows within 60 inches measured horizontally from the water's edge of a bathtub or whirlpool tub or from edge of a shower and where the bottom edge of the glazing is less than 60 inches above the walking surface.

Water Conserving Plumbing Fixtures [California Civil Code 1101.4(a)]

- The California Civil Code requires that all existing non-compliant plumbing fixtures (based on water efficiency) throughout the house be upgraded whenever a building permit is issued for remodeling improvements even if the fixtures are not within the scope of work. Residential buildings constructed after January 1, 1994, are exempt from this requirement. The following table shows the fixtures that are considered to be non-complaint and the type of water-conserving plumbing fixture that should be installed:

Type of Fixture	Non-Compliant Plumbing Fixture	Required Wate-Conserving Plumbing Fixture (max. rate) {CalGreen 4.303}
Water Closet (Toilet)	More than 1.6 gallon/flush	1.28 gallons/flush
Urinal	More than 1.0 gallon/flush	0.125 gallon/flush for wall mount. 0.50 for others
Showerhead	More than 2.5 gallons/minute	1.8 gallons/minute at 80 psi
Faucet – Bathroom	More than 2.2 gallons/minute	1.2 gallons/minute at 60 psi
Faucet – Kitchen	More than 2.2 gallons/minute	1.8 gallons/minute at 60 psi

Plumbing

- Toilet and Bidet require a total minimum 30 inches clear space (15 inches from centerline to each side). Toilet, Bidet, or Lavatory require a minimum of 24 inches clear space in front of the fixture. Urinals require a total minimum 24 inches clear space (12 inches from centerline to each side). [CPC 402.5]
- When additional toilets (water closets) are installed, a maximum of three (3) toilets are allowed on a 3 inches waste line. [Table 703.2, Footnote 4]
- Provide safety glazing (tempered) glass for tub/shower enclosures & doors. [CRC R308.4.5]

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- Showers and tub-shower combinations shall be provided with individual control valves of the pressure balance, thermostatic, or combination pressure balance/thermostatic mixing valve type conforming to ASSE 1016/ASME A112.1016/CSA B125.16 or ASME A112.18.1/CSA B125.1. Handle positions shall be adjusted to deliver a maximum mixed water setting of 120º F. [CPC 408.3]
- The hot water valve shall be installed on the left side where two separate handles control are provided. [417.5]
- A minimum 12 inches by 12 inches access panel is required when a slip joint p-trap waste & overflow is provided for inspection & repair. [402.10]

Bidets

- The water supply to the bidet shall be protected by an air gap or vacuum breaker. [410.2, 603.3.2, 603.3.5, 603.3.6]
- The maximum hot water temperature discharging from the bidet shall be limited to 110º F by a device that is in accordance with ASSE 1070/ASME A112.1070/CSA B125.70. Water heater thermostats shall not be considered a control for meeting this provision. [410.3]

Showers

- Shower stalls shall have a minimum interior finished area of 1,024 sq.-in. and be able to encompass a 30" diameter circle. [408.6]
- Stall shower door to open out with a minimum 22" wide opening. [408.5]
- Site-built shower stalls shall be installed in accordance with Section 408.7.
- Floor and walls shall be finished with a non-absorbent surface and the wall finish shall extend to a height of not less than 6-ft above the floor. [CRC R307.2]

Bathtubs & Whirlpool (Spa) Tubs

- Tubs shall have a readily accessible access panel of size to permit the removal and replacement of the circulation pump. [409.6]
- The circulation pump shall be located above the crown weir of the trap.
- The pump and circulation pipping shall be self-draining to minimize water retention. Such fittings shall be listed in accordance with ASME A112.19.7/CSA B45.10.
- The maximum hot water temperature discharging from the tub shall be limited to 120º F by a device that is in accordance with ASSE 1070/ASME A112.1070/CSA B125.70. Water heater thermostats shall not be considered a control for meeting this provision. [409.4]
- The floor and walls above tub-shower combo shall be finished with a nonabsorbent surface and wall finish shall extend to a height of not less than 6-ft above the floor. [CRC R307.2] na.net Page 3 of 5

Electrical

- Provide at least one 20-amp GFCI protected receptacle within 36 inches of the outside edge of each bathroom sink basin. [CEC 210.52(D)]
    - Receptacle shall be located on a wall or partition that is adjacent to the basin, on the countertop, or installed on the side or face of the basin cabinet not more than 12 inches below the top of the basin.
    - All receptacles shall be tamper-resistant (TR). [406.12]

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- A minimum of one 120V/20-amp branch circuit is required for bathroom receptacles. Such circuits shall have no other receptacles. [210.11(C)(3)]
- All 125V, single-phase, 15- and 20-amp receptacles installed in bathrooms shall have GFCI protection. The GFCI shall be installed in a readily accessible location. [210.8]
- Receptacles shall not be installed within or directly over a bathtub or shower stall. [406.9(C)]

Bathroom Lighting Requirements [CEnC 150.0(k)]

- All installed luminaire (lighting) shall be high efficacy in accordance with Table 150.0-A. A minimum of one high efficacy luminaire shall be controlled by a vacancy sensor.
- Switches shall not be installed within tubs or shower spaces unless installed as part of a listed tub. [CEC 404.4(C)]
- All recessed lighting shall be "IC Rated and Airtight Certified". [CEnC 150.0(k)1.C]
- No pendant lighting shall be located within a zone measured 3-ft horizontally and 8-ft vertically from the top of a bathtub rim or shower stall threshold. [CEC 410.10(D)]
- Luminaires located within the actual outside dimensions of the bathtub or shower to a height of 8-ft vertically from the top of the tub rim and shower threshold shall be of enclosed & gasketed type listed for damp or wet locations and be GFCI protected. [550.14(D), 551.53(B)]
- For occupancies with a horizontal (floor/ceiling assembly) fire-rated separation, the recessed fixtures shall be protected to the same rating of the separation (1-hour) OR be listed for the required fire protection. This generally applies to residential condominium construction where units are above or below other units. [CBC 714.4.2]

Bathroom Exhaust

- The local exhaust system shall be installed in a bathroom containing a tub, shower, spa, or some other similar source of moisture and vented outdoors with a minimum exhaust rate of 50 cfm (20 cfm if continuous operation). A maximum of 3 sone rating (1 for continuous) is required for the (ENERGY STAR) exhaust fan. Fans must be controlled by a humidistat which shall be readily accessible and capable of adjustment between a relative humidity range of 50% to 80%. [CEnC 150(o), ASHRAE std. 62.2, CalGreen 4.506.1]
- Exhaust fans shall be switched separately from the lighting system OR have a lighting system that can be manually turned on and off while allowing the fan to continue to operate for an extended period of time. [CEnC 150.0(k)2.B]
- Bathrooms that only have a toilet and sink do not require local exhaust if there is an (min. 3-sq-ft) operable window. [CRC R303.3]
- Exhaust ducts shall terminate outside the building and be equipped with back-draft dampers. Termination shall not be less than 3-ft from a property line, 10-ft from a forced air inlet, and 3-ft from openings into the building. Ducts shall not be discharged onto a public walkway. [CMC 504.1.1, 502.2.1]

Smoke and Carbon Monoxide Alarms [CRC R314, R315]

- Smoke alarms shall be installed in each sleeping room, on the ceiling or wall outside each separate sleeping area in the immediate vicinity of the bedrooms, on each story of a multistory unit, in habitable attics, and in basements. [CRC R314.3]

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- Smoke alarms shall be listed and labeled in accordance with UL 217 and installed in accordance with the provisions of NFPA 72. Alarms shall be tested and maintained in accordance with the manufacturer's instructions. Alarms that no longer function must be replaced.
- Carbon monoxide alarms are not required if there are no fuel-burning appliances or fireplaces in the unit and where the garage is detached from the unit. [R315.2.1]
- Carbon monoxide alarms shall be installed on the ceiling or wall (above the door header) outside each separate sleeping area in the immediate vicinity of the bedrooms, on every occupiable level, in basements, and in bedrooms where a fuel-burning appliance is located within the bedroom or its attached bathroom. [R315.3]
- Carbon monoxide alarms (including smoke & carbon monoxide combination alarms) shall be listed and labeled in accordance with UL 2034 (and UL 217 for combo alarms) and installed & maintained in accordance with NFPA 720 & manufacturer's instructions.
- In multi-family buildings, all required carbon monoxide alarms shall be equipped with the capability to support visible alarm notification in accordance with NFPA 720. [CBC 915.7]

Energy (Title-24)

- All exterior walls exposed during construction shall be insulated with min. R-13 for 2x4 studs or min. R-19 for 2x6 or greater studs. [CEnC 150.2(b), 150.0(c)]
- All roof/ceilings exposed during construction shall be insulated with min. R-19. [150.2(b), 150.0(a)1]
- All accessible joints, penetrations, and other openings in the building envelope about the area of work shall be caulked, gasketed, weather striped, or otherwise sealed. [110.7]

Green Building Standards

- Adhesives, sealants, caulks, paints, & coatings shall comply with the VOC limits. [CalGreen 4.504.2.1 & 4.504.2.2]
- Aerosol paints & coatings shall meet the Product-Weighted MIR Limits for ROC. [4.504.2.3]
- Minimum 80% of the installed resilient flooring shall comply with one or more certified products per Section 4.504.4.
- Interior use of hardwood plywood, particleboard, and medium density fiberboard composite wood products shall comply with the formaldehyde limits per Table 4.504.5.
- New framing shall not be enclosed when the framing members have a moisture context exceeding 19%. [4.505.3]

Building Permit Approval Requirements

- A completed permit application (including plumbing, mechanical, and electrical permit application when applicable).
- Provide the following plans for review:
    - Site Plan (not required to be to scale) to show the property lines at all sides, outline of the existing structures on the lot, location of the public streets, alleys, & easements, and north arrow. Approximately, identify/highlight the location of the area of work.
    - Floor Plan with dimensions about the remodeled area. Partial floor plan is allowed, but plan must show adjacent rooms/areas. Show all the proposed work on the plan.

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- If the bathroom layout is changed, then provide an existing floor plan and proposed floor plan. If the walls are being demolished, then show the existing framing layout to determine if the wall is bearing or non-bearing. Engineering may be required if bearing.

Inspections

- A minimum of two inspections are required for bathroom remodels. A rough electrical inspection should be scheduled after the electrical boxes are installed and before any devices are connected. Any other structural, mechanical, or plumbing alterations should also be scheduled for a rough inspection. The final inspection should be scheduled after all the work is completed.