



# KITCHEN REMODEL- RESIDENTIAL

A permit is required for kitchen remodels that include the removal & replacement and/or relocation of kitchen cabinets, countertops, sink, dishwasher, new/altered island, or replacement/alteration to the electrical, plumbing, and exhaust hood. A permit is not required for re-facing of existing cabinets. 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 (exhaust hood).

## **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 Water-Conserving Plumbing Fixture (max. rate) CalGree 4.303
Water Closet (Toilet)	More than 1.6 gallons/flush	1.28 gallons/flush
Urinal	More than 1.0 gallon/flush	0.125 gallons/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 gallon/minute at 60 psi

## **Plumbing**

The hot water valve shall be installed on the left side where two separate handles control are provided. [CPC 417.5]

Traps for island sinks shall be roughed in above the floor and may be vented by extending the vent as high as possible, but not less than the drain board height and then returning it downward and connecting it to the horizontal sink drain immediately downstream from the vertical fixture drain. [CPC 909]

## **Kitchen Lighting Requirements [CEnc 150.0(k)]**

- All installed luminaire (lighting) shall be high efficacy in accordance with Table 150.0-A. This also applies to permanently installed lighting in cabinets or under the cabinets.
- Cabinet (in and under) lighting shall be switched separately from other lighting systems.
- All recessed lighting shall be “IC Rated and Airtight Certified”. [150.0(k)1.C]
- 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]



# KITCHEN REMODEL- RESIDENTIAL

## Electrical

- Countertop receptacles shall meet all of the following requirements: [CEC 210.8, 210.52, 406.12]
  - All receptacles shall be GFCI protected and tamper-resistant (TR).
  - Wall receptacle shall be provided at all wall countertop spaces with a minimum dimension of 12” wide.
  - Be located so that no point along the wall line is more than 24” measured horizontally from a receptacle in the countertop space.
  - Receptacles shall be located no more than 20” above countertop.
  - Islands/peninsulas (min. long dimension of 24” & short dimension of 12”) shall have at least one receptacle mounted not more than 12 inches below the countertop and where the countertop does not extend more than 6 inches beyond its support base.
- All receptacles at the following location shall be GFCI protected and tamper-resistant (TR): Within 6-ft of the outside edge of the sink.  
Supplying dishwashers.
- The GFCI shall be installed in a readily accessible location.
- Kitchen receptacles shall be supplied by circuits meeting all of the following requirements: [210.11(C), 210.52, 422.16]
  - Minimum of two 20-amp small-appliance branch circuits shall be provided to serve all wall & floor receptacles, and countertop receptacles. No small-appliance branch circuit shall serve more than one kitchen.
  - A dedicated circuit is required for cord and plug connected range exhaust (range) hoods. Separate circuits may be required for the garbage disposal, dishwasher, and built-in microwave based on the manufacturer’s requirements and the motor rating.
  - The existing electrical panel may need to be upgraded, or a sub-panel added, if the above requirements cannot be accommodated.
- All 120V, single-phase, 15- and 20-amp branch circuits supply outlets or devices installed in kitchens shall be AFCI protected. The AFCI shall be installed in a readily accessible location. [210.12]

## Kitchen Hood Ventilation

- Local exhaust system shall be installed in the kitchen and vented to the outdoors (recirculation prohibited) with a minimum exhaust rate as indicated in the table below and maximum 3 sone rating. [CEnC 150(o), ASHRAE std. 62.2]

Intermittent			Continuous	
Application	Min. Flow Rate	Notes	Min. Flow Rate	Notes
Kitchen	100 cfm	Vented rage hood required if exhaust fan flow is less than 300 cfm	5 air changes per hour	Based on kitchen volume

- Kitchen range hood fans are now required to be verified by a HERS Rater. See Section 4.6.7 of 2019 Residential Compliance Manual for more details. Range hood that exhaust more than 400 cfm at a minimum speed are exempt from HERS verification.
- Ducts used for kitchen range ventilation shall be of metal and have smooth interior surface. Aluminum flex duct is prohibited. A backdraft damper shall be provided. [CMC 504.3, 504.1.1]



# KITCHEN REMODEL- RESIDENTIAL

- Upper cabinets shall be a minimum of 30” above cooking top. Cabinets and kitchen range hood shall be installed with the minimum clearances as required by the range/cooktop manufacturer’s installation instructions. [CMC 920.3.2]

## **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 per CRC.
- 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 is no fuel-burning appliances or fireplace in the unit and where the garage is detached from the unit per CRC.
- 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 per CRC.
- 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. R19 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 stripped, 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]

## **Permit Approval Requirements**

- A completed building permit application (including plumbing, mechanical, and electrical permit application when applicable).



# KITCHEN REMODEL- RESIDENTIAL

- 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.
  - If the kitchen 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 kitchen 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.