



Community Development Department – Building Division

KITCHEN REMODELING GUIDE

GENERAL

The purpose of this guide is to clarify the minimum building code requirements when remodeling an existing kitchen without adding, modifying, or removing structural elements (floors, walls, or ceilings).

The information provided in this document is general and intended as a guide only. Each project is unique and additional requirements may be enforced as deemed appropriate.

TIP! Failure to complete items below prior to inspection may result in a re-inspection fee.

Residential Building Code Requirements

1. Provide smoke & carbon monoxide lithium battery detectors:
 - a) Smoke alarms inside each bedroom and immediately outside the sleeping areas.
 - b) Carbon monoxide alarms immediately outside sleeping rooms and areas.
 - c) On each level including basements (not including crawl spaces), and habitable attics.

2. Minimum height for a kitchen ceiling is 7'-0"

Energy and Green Building Code Requirements

1. New and retrofit windows shall be maximum 0.32 U-Factor. NFRC temporary labeling on new windows shall not be removed until after inspection
2. Install R-15 (or per CF-1R Performance) insulation in 2x4 walls, (R-19 in 2x6 walls), between conditioned and unconditioned space.
3. Install R-19 (or per CF-1R Performance) insulation at bathroom floors with accessible crawl space
4. Install R-30 (or CF-1R Performance) insulation at ceilings exposed to unconditioned space
5. Insulation shall be installed correctly with no gaps, voids or compressions, with interior surface flush with the face of framing members. Vapor barrier shall face the conditioned space
6. Air leaks at the kitchen windows shall be sealed and weather-stripped

250 EAST L STREET, BENICIA CA 94510 707.746.4230
COMDEV@CI.BENICIA.CA.US

7. Air leaks at the building envelope shall be sealed prior to insulation inspection
8. Recessed lights in insulated ceilings shall be IC / AT rated and shall be sealed between the housing and ceiling with gasket or caulk
9. All installed lighting fixtures (luminaires) shall be high efficacy type or JA8 listed
10. Kitchen ceiling lighting junction box without fixture installed is rated at 180 watts
11. Lighting in spaces adjacent to the kitchen are considered part of the kitchen lighting unless switched separately
12. Kitchen range ventilation hoods shall be minimum 100cfm or sized per range manufacturer's specifications. Maximum sound rating is 3 sones, unless used for IAQ (1 sones, unless >400 cfm)
13. Kitchen range ventilation hoods shall be vented to the exterior
14. Hot water pipes $\frac{3}{4}$ " or larger shall be insulated (1" thick) between water heater and kitchen sink in alterations to kitchens where the pipes are exposed or accessible during construction

Electrical Code Requirements

1. Label all breakers
2. All conductors shall be copper
3. All multi-wire circuits shall have a means of simultaneously disconnection all ungrounded conductors at the breaker panel
4. All conductors for multi-wire circuits shall be grouped with wire ties within the breaker panel
5. All new 15- and 20- amp circuits shall be protected with an arc fault circuit interrupter (AFCI)
6. All new receptacles installed shall be tamper-resistant
7. Provide two 20-amp circuits for the kitchen counter receptacles
8. Provide additional dedicated circuits for dishwasher, disposer, microwave and other appliances as required by the NEC
9. Provide GFCI protected, tamper-resistant receptacles at all kitchen counters, spaced so that no space along the counter is more than 24" from a receptacle, measured from the edge of a counter, sink or range. Applicable to any counter more than 12" in length
10. Install minimum one GFCI receptacle at the end of the kitchen counter peninsula
11. Install minimum one GFCI receptacle at kitchen island
12. GFCI receptacles may be mounted maximum 12" below countertop with maximum 6" overhang

Knob and Tube Wiring with Insulation cover requirements

All insulation shall be removed where in contact with knob and tube wiring. Alternately, the following method may be used to allow the installation of insulation where knob and tube wire is present

1. The wiring shall be surveyed by an electrical contractor (C-10) licensed by the State of California. Certification shall be provided by the electrical contractor that the existing wiring is in good condition with no evidence of deterioration or improper over-current protection, and no improper connections or splices
2. The certification letter shall be filed with the Building Division, and a copy furnished to the owner
3. All accessible areas in the building where insulation has been installed around knob and tube wiring shall be posted by the insulation installer with a notice, clearly visible, stating that caution is required when entering these areas.
4. The insulation shall be noncombustible as defined in the current version of the California Building Code
5. The insulation shall not have any electrically conductive material as part of or supporting the insulation material
6. Repairs, alterations, or extensions to the electrical system will require permits and inspections

Mechanical Code Requirements

1. All new equipment shall be installed in accordance with manufacture's specifications
2. Manufacture's installation instructions shall be available at final inspection
3. Provide a kitchen range hood with hard, smooth metal vent (ductless hoods are prohibited).
4. Range hood shall terminate not less than 3' from openings & property lines

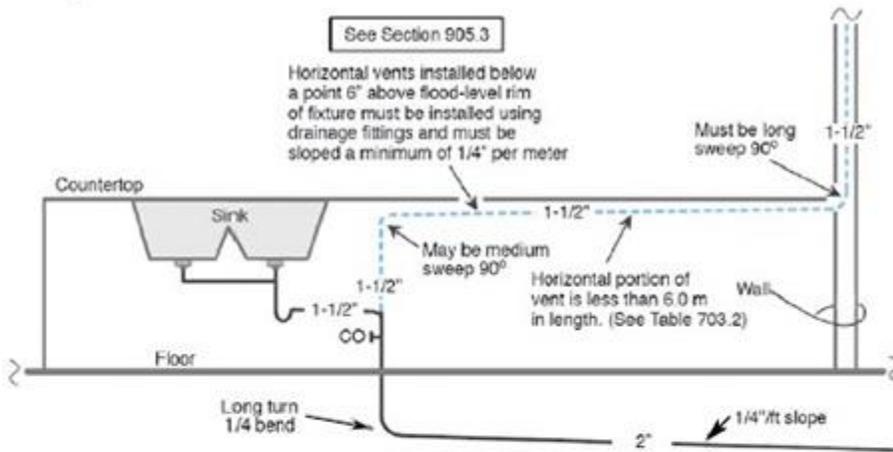
Plumbing Code Requirements

1. The gas shut-off valve for gas range or oven shall be installed in an accessible location (behind the appliance is acceptable)
2. Kitchen faucets shall be minimum 1.8 gallons per minute. Kitchen faucets may temporarily increase flow above 1.8 gpm but shall not exceed 2.2 gpm. They shall default to 1.8 gpm

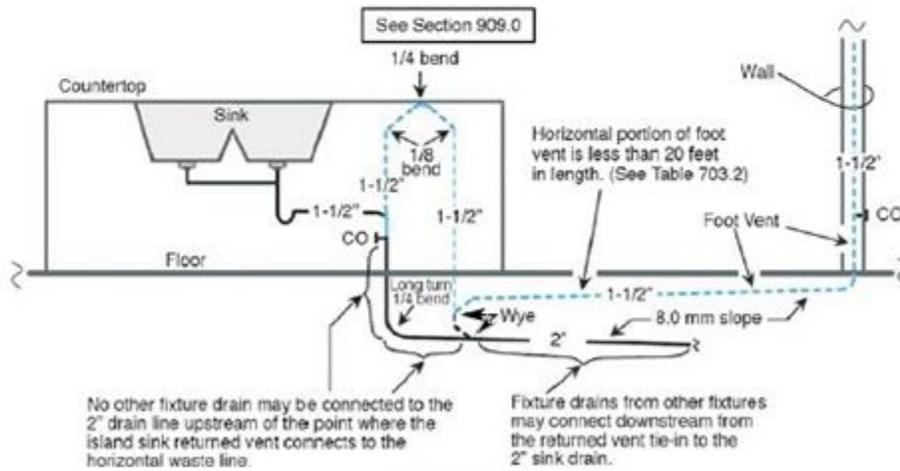
Plumbing – Kitchen Island Vents

1. When a sink located in an island has no connection to a wall, waste or vent line, island special loop venting may be use
2. Note that special loop venting is not permitted for sinks or other fixtures located on a peninsula (see figure 909.1(A)on the next page for details)
3. The following items are part of special loop venting
 - a) Provide a clean-out at the sink drain
 - b) Provide a clean-out at the wall vent
 - c) No horizontal sections are permitted in the loop vent
 - d) Use a wye connection at the loop to foot vent (a sanitary tee is not permitted)

- e) No other fixture drains are permitted to be connected between the sink drain clean-out and the vent loop to foot vent connection
4. Refer to the Figure 909.1 (B) on the next page for details



**FIGURE 909.1A
PENINSULA SINK INSTALLATION**



**FIGURE 909.1B
ISLAND SINK INSTALLATION**