Town of Portola Valley
765 Portola Road
Portola Valley, CA 94028
(650) 851-1700

KITCHEN REQUIREMENTS

INTRODUCTION

Kitchen alterations and renovations generally require a Building Permit. The following information can be used as a guideline for the kitchen requirements. A kitchen renovation includes, but is not limited to, the removal and/or relocation of base cabinets, counter tops, sinks, dishwasher, installed appliances, changes to the lighting, removal & replacement of any wall board, modifications to the structural elements of the dwelling and changes to the electrical, mechanical and plumbing systems.

Removal and replacement of the base cabinets and counter top will require compliance with the electrical outlet location requirements of the code.

The replacement of the refrigerator, re-facing the existing cabinets, towel bars, mirrors, paint, floor coverings, etc. is considered maintenance and no permit is required for these items.

ELECTRICAL

Alteration and/or renovation of the kitchen trigger the upgrade to current electrical code compliance consisting of the following:

☐ All kitchen countertop outlets shall be GFCI protected. CEC 210.8(A)(6)

☐ 12" or wider countertops require an outlet. CEC 210.52(C)(1)

☐ Outlets are required within 24" of any location along the countertop. CEC210.52(C)(1)

☐ Kitchen outlets must be positioned a maximum 20" above counter top. 210.52(C)(5)

☐ Appliance garage outlets are not counted as a required countertop outlets.210.52(C)(5)E

☐ Appliances and sinks break up the countertop run, requiring each side to comply individually. CEC210.52(C)

☐ The electrical outlet requirements include islands, peninsulas, kitchen desktops, wet bars, and serving bars. A large window across the back of a sink or lack of a back splash does not exempt the countertop from the outlet requirements. These outlets may be in a drop front cabinet face, under cabinet plug strip, pop up or tombstone type receptacle. 210.52(C)(2), (3), (4)

☐ 2 – 20 amp small appliance branch circuits are required for kitchens. The loads shall be balanced and have no other outlets. 210.52(B)(1),(2).

☐ Individual dedicated circuits are required for all major appliances.210.11(C)(1) & 422.10(A)

☐ The garbage disposal cord is limited to a range of 18" to 36" long. CEC 422.16(B)(1)

☐ The dishwasher cord is limited to a range of 36" to 48" long. Sheathed cable (Romex) may not be installed with a plug. It is not an approved flexible cord. CEC 422.16(B)(2)

☐ A minimum 15 amp branch circuit (separate circuit) is required for both the dishwasher and disposal. CEC 210.23(A)

☐ A minimum 20 amp branch circuit (separate circuit) is required for the microwave or microwave hood combination.

☐ If using a split outlet (2 circuits on the same yolk) for dishwasher/disposal, provide a listed handle tie at the 2 circuit breakers at the panel. CEC210.7(B)

☐ Residential Kitchen Lighting is required to meet the energy efficiency standards. This requires 50% of kitchen lighting *wattage* to be high efficacy luminaries. Provide a lighting schedule to verify compliance. California Residential Compliance Manual (CRCM) 6.1.2(1)

☐ IC (direct contact) and AT (air tight) rated cans are required for recessed lighting if installed in an insulated ceiling. 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. CRCM 6.1.2

☐ Fluorescent recessed lighting when used to comply with the lighting requirements must be of a pin base type design. Incandescent screw type base are not approved. CRCM 6.2.1

☐ Incandescent and fluorescent lighting must be on separate switches. CRCM 6.2.1 & CEES 150(K)7

MECHANICAL

Alteration and/or renovation of the kitchen trigger the upgrade to current mechanical codes compliance consisting of the following:

☐ A ducted residential exhaust hood is required. A metal, smooth interior surface duct required on vent hood or down draft exhaust vent. Aluminum flex duct not approved. Provide a back draft damper. CMC504.2.

☐ Ducts for domestic downdraft grill/range ventilation installed under a concrete slab may be of approved schedule 40 PVC provided:

☐ The under floor trench in which the duct is installed shall be completely backfilled with sand or gravel.

☐ Not more than 1" of 6" diameter the PVC coupling may protrude above the floor surface.

☐ PVC pipe joints shall be solvent cemented to provide an air and grease tight duct.

☐ The duct shall terminate above grade outside the building and shall be equipped with a back draft damper.

☐ Minimum 30" vertical clearance to combustibles from cook top surface is required. CMC504.2

☐ Kitchen local exhaust ventilation requires a minimum rate of 100cfm meeting the requirements of ASHRA 62.2. This includes a maximum sound rating of 3 sone @ 100cfm.

☐ The size and length of the ducting must be detailed on the plan.

Alterations that do not replace or relocate the existing fan or when the ceiling finishes are not removed and/or there is no access available for the installation of an exhaust fan, may continue to use the existing exhaust fans provided they vent to the outside air. kitchens that do not include an existing fan must install a compliant fan at the time of the renovation. A recirculating type hood is not an approved installation.

In some cases, the design of the structure will not allow the installation of a duct. In these cases an exemption may be applied for; approval is based on a review by the Building Official.

SMOKE / CARBON MONOXIDE ALARMS

Kitchen renovations (projects over $1,000) will require the smoke and carbon monoxide alarms for the
dwelling to meet the current code. CRC sections R314 and R315

☐ Smoke alarms are required in all sleeping rooms, outside each sleeping area in the immediate vicinity of the bedrooms, on each floor level including basements and habitable attics, but no including crawl spaces and uninhabitable attics.

☐ Carbon Monoxide alarms are required in dwelling units and sleeping units when fuel-burning appliances are installed and/or dwelling units have attached garages. Either condition requires the alarms.

☐ When more than one alarm of either type is required to be installed within an individual dwelling unit, the alarm devices shall be interconnected in such a manner that activation of one alarm will activate all the other alarms.

☐ In existing conditions, alarms may be battery operated when the repairs or alterations do not result in the removal of the wall and ceiling finishes or there is no access by means of an attic, basement or crawlspace.

☐ Multipurpose alarms that combine both a smoke alarm and carbon monoxide alarm shall comply with all applicable standards of both CRC sections R314 and R315 and be listed by the office of the state fire marshal.

PLUMBING

Alteration and/or renovation of the kitchen are required to meet the current plumbing codes. Although each project is unique, the basic requirements consist of the following:

☐ A gas test is required on piping modifications (5 PSI for 15 minutes). A maximum 15 PSI gauge is required for the gas test. A lower gas pressure test may be performs when using a recording test gauge. As provided for in CPC section 1214.3

☐ Gas lines that run under a slab shall run through an approved, vented, gas tight conduit. CPC 1211.1.6

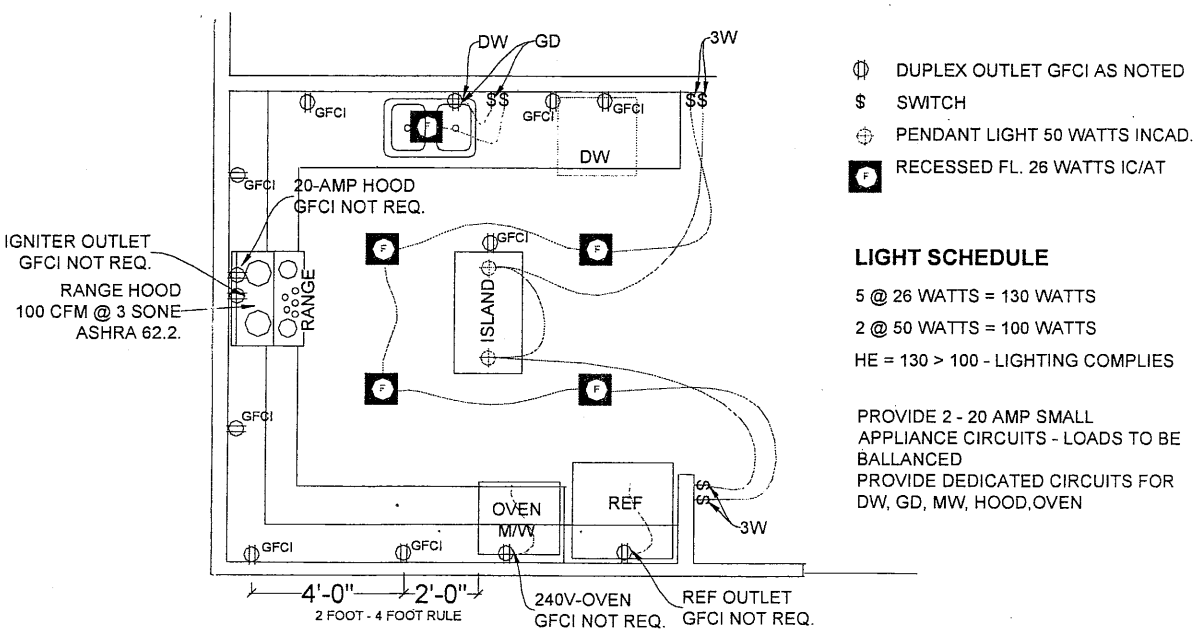
☐ An accessible shutoff valve shall be installed outside each appliance and ahead of the union connected thereto and in addition to any valve on the appliance. CPC1212.5

☐ Provide maximum 6' long listed gas flexible connector and shut off to a free standing range. CPC1215.5

☐ A listed air gap is required for the dishwasher drain. CPC 807.4 a loop provided inside the cabinet is not approved.

☐ The maximum flow rate for the sink faucets is 2.2 GPM. Town Ord.

☐ An air admittance valve is not approved for installation or use inside the dwelling.

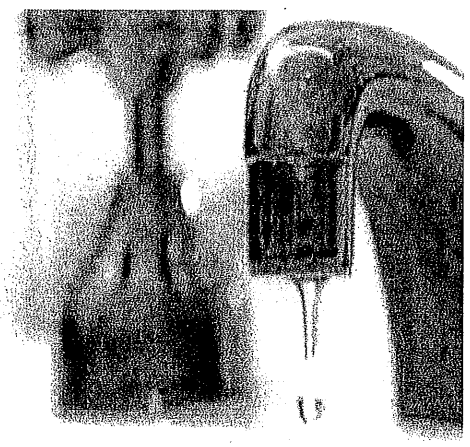


SAMPLE PLAN

2013 Green Building Standards Code
Non-Compliant Plumbing Fixture Replacement Requirements
Effective January 1, 2014

2013 California Green Building Code 301.1.1
Effective January 1, 2014 all residential buildings undergoing permit alteration, additions, or improvements shall replace non-compliant plumbing fixtures with water-conserving plumbing fixtures. Plumbing fixture replacement is required prior to issuance of final completion, certificate of occupancy, or final permit approval by the local Building Department. See Civil Code Section 1101.1, et seq. for the definition of a non-compliant plumbing fixture, types of residential buildings affected and important enactment dates. **Applies to all structures finaled prior to January 1st, 1994.**

Civil Code Section 1101.3(c)
"Noncompliant plumbing fixture means"
(1) Any toilet manufactured to use more than 1.6 gallons of water per flush.
(2) Any urinal manufactured to use more than one gallon of water per flush.
(3) Any showerhead manufactured to have a flow capacity of more than 2.5 gallons of water per minute.
(4) Any interior faucet that emits more than 2.2 gallons of water per minute.



Bathroom Faucets: _____qty

Shower / Bathtub: _____qty

Toilets / Urinals: _____ qty

Kitchen & all Other Faucets: _____ qty

I hereby certify that I have replaced o r tested, or have had an individual under my direction replace or test all plumbing fixtures, covered by Civil Code Section 1101.3(c) for the address and permit number listed below:

Address:_____

Permit Number:_____

_____ _____
Property Owner's or Contractor's Name Date

_____ _____
Signature Owner or Contractor Date

INSTALLATION CERTIFICATE		CF-6R-LTG-01
Residential Lighting		**(Page 1 of 3)**
Site Address:	**Enforcement Agency:**	**Permit Number:**

1. Kitchen Lighting

Does project include kitchen lighting?

☐ Yes, complete section 1 ☐ No, go on to section 2
☐ Yes §150(k)3: The wattage of permanently installed luminaires (lighting fixtures) has been determined as specified by §130(d).
☐ Yes ☐ No §150(k)3: In the kitchen, are there electrical boxes finished with a blank cover or where no electrical equipment has been installed, and where the electrical box can be used for a luminaire or a surface mounted ceiling fan? If yes, the following row must also be yes:
☐ Yes ☐ NA Wattage has been calculated as 180 watts of low efficacy lighting per blank electrical box.

§150(k)8 Kitchen Lighting must comply with either method (a), (b), or (c) below:

(a) All high efficacy luminaires

☐ Yes, complies because only high efficacy luminaires have been installed in the kitchen.
☐ No, complies with method (b) or (c).

(b) ≥ 50% watts used by high efficacy luminaires

☐ Yes, complies because at least 50% of the installed watts are from permanently installed high efficacy luminaires as demonstrated in the table below: Total A ≥ Total B.
☐ No, complies with method (a) or (c).

Fill out the following table if complying with either method (b) or (c).

Table (b)

Luminaire Type	Efficacy High	Efficacy Low	Watts	x	Quantity	=	High Efficacy Watts	or	Low Efficacy Watts
	☐	☐		x		=		or	
	☐	☐		x		=		or	
	☐	☐		x		=		or	
	☐	☐		x		=		or	
	☐	☐		x		=		or	
Complies with method (b) if A ≥ B					Total:	A:		≥	B:

(c) Additional Kitchen Low Efficacy Lighting

☐ Yes, complies because the kitchen lighting qualifies for additional low efficacy lighting and as demonstrated in table in (b) (above) and the table in (c) (below) that (A + C) ≥ B
☐ No, complies with method (a) or (b).

Additional kitchen low efficacy lighting is available only if all of the following are true:

☐ Yes. All low efficacy luminaires in the kitchen are controlled by a vacancy sensor Dimmer energy management control system (EMCS) or a multi-scene programmable control system.
☐ Yes. Permanently installed luminaires in garages laundry rooms closets greater than 70 square feet and utility rooms are high efficacy luminaires AND are controlled by a vacancy sensor.

Table (c)

From the Table in (b)		Use 50 W for dwelling units ≤ 2,500 ft² Use 100 W for dwelling units > 2,500 ft²	Add	Yes/No ?
A	B	C	A + C	Is (A+C) ≥ B ?

2. Lighting Internal to Cabinets

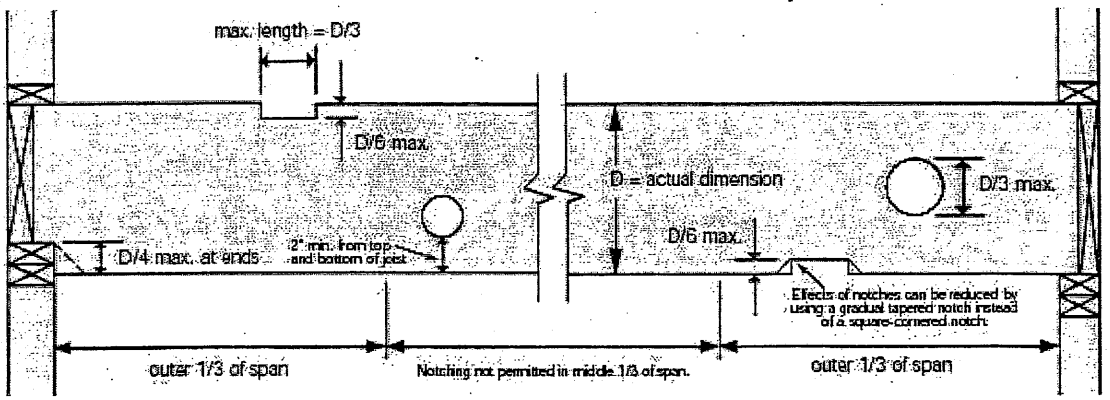
Does project includes lighting internal to cabinets?

☐ Yes, complete section 2 ☐ No, go on to section 3
☐ Yes, §150(k)9: Permanently installed lighting internal to cabinets uses ≤ 20 watts of power per linear foot of illuminated cabinet.

MAXIMUM SIZE FOR CUTS IN FLOOR JOISTS

Joist Size	Max. Hole	Max. Notch Depth	Max End Notch
2X4	None	None	None
2X6	1-½"	7/8"	1-$^{3}/_{8}$"
2X8	2-$^{3}/_{8}$"	1-¼"	1-$^{7}/_{8}$"
2X10	3"	1-½"	2-$^{3}/_{8}$"
2X12	3-$^{3}/_{4}$"	1-$^{7}/_{8}$"	2-$^{7}/_{8}$"

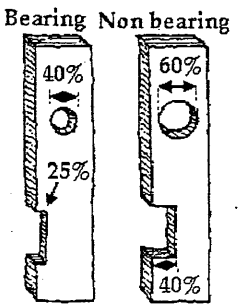
PLACEMENT OF CUTS IN FLOOR JOISTS



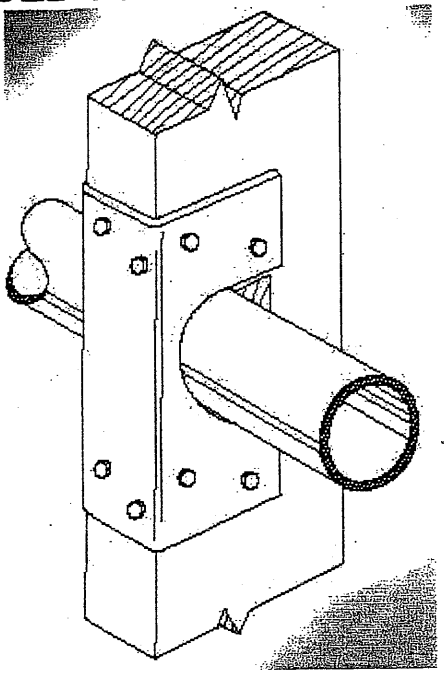
CUTTING, NOTCHING AND BORING WOOD STUDS

	Maximum Diameter of Hole	Distance From Hole to Edge of Stud	Location	Maximum Depth of Cut or Notch
Bearing/Exterior Studs[1]	40% of Stud Width	5/8" Minimum	Not same section as cut or notch	25% of Width of Stud
Interior Nonbearing Studs	60% of Stud Width	5/8" Minimum	Not same section as cut or notch	40% of Width of Stud

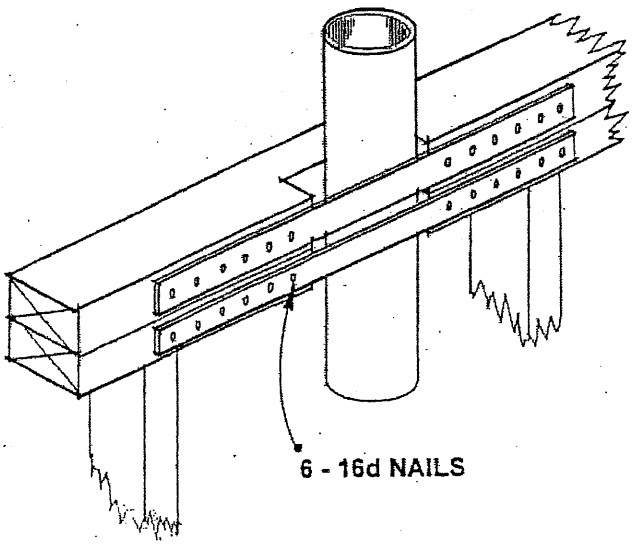
1. ***Exterior or bearing studs*** may be bored or drilled provided that the diameter of the resulting hole is not greater than 60 percent of the stud width and provided that the studs are doubled and not more than two successive studs are bored, the edge of the hole is no closer than 5/8 inch to the edge of the stud, and the hole is not located in the same section as a cut or notch.
2. Approved stud shoes may be used when installed in accordance with the manufacturers recommendations.



STUD SHOE USED TO REINFORCE NOTCHED STUD



CUTTING OF PLATES



Where plumbing, heating or other pipes necessitate the cutting of the soles or plates, a metal tie not less than .058 inch, (16 galvanized gage) and 1 ½ inches wide shall be fastened to <u>each</u> plate across and to each side of the opening with not less than (6) 16(d) nails.