



**CITY OF DANA POINT**  
COMMUNITY DEVELOPMENT, BUILDING  
AND SAFETY

**DESIGN REQUIREMENTS FOR  
RESIDENTIAL KITCHEN ALTERATIONS**



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# INTRODUCTION

Kitchen alterations and renovations generally require a Building Permit. The following information can be used as a guideline for the kitchen requirements.

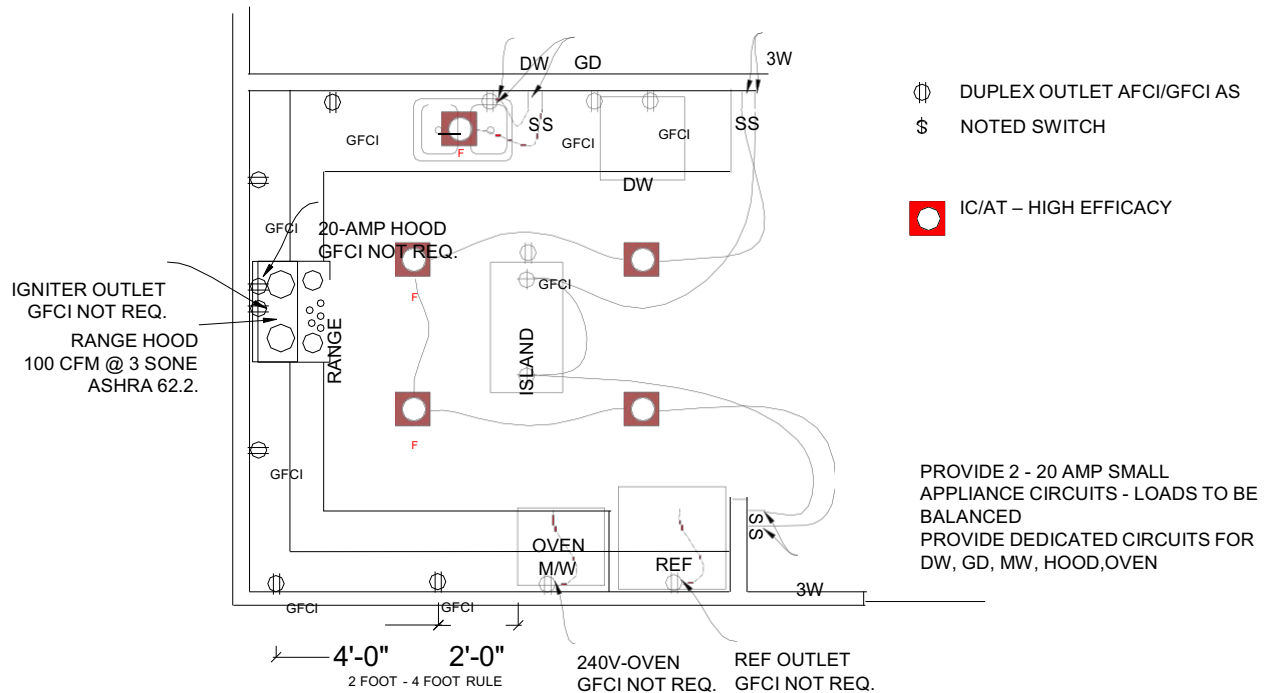


A kitchen renovation includes, but is not limited to, the removal and/or relocation of base cabinets, counter tops, sinks, dishwasher, installed appliances, changes to the lighting, removal & replacement of any wall board, modifications to the structural elements of the dwelling and changes to the electrical, 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.

The City of Dana Point requires, at a minimum, a floor plan depicting the layout of the alteration/renovation. The minimum size is 11" x 17". A sample plan and graph style work sheet is available for homeowner/builder use. The following details the minimum requirements of the kitchen electrical, mechanical and plumbing systems and may be attached to your plan as general compliance notes:



## SAMPLE PLAN

## CODES

Kitchen alterations and renovations require compliance with the:

- 2022 California Residential Code (CRC);
- 2022 California Plumbing Code (CPC);
- 2022 California Mechanical Code (CMC);
- 2022 California Electric Code (CEC);
- 2022 California Energy Code;
- 2022 California Green Building Standards (CGBS);
- and City of Dana Point Local Ordinances.

## 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 not 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.

## 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 & ARC-FAULT** protected (CEC 210.8(A)(6) & 210.12(A)).
- Receptacles and replacement receptacles shall be listed as tamper-resistant (CEC 406.4(D)(5) and 210.1.2).
- 12" or wider countertops require an outlet (CEC 210.52(C)).
- Outlets are required within 24" of any location along the countertop (CEC210.52(C)(1)).
- Kitchen outlets must be positioned a maximum 20" above countertop (CEC 210.52(C)(3)(1)).
- Appliance garage outlets are not counted as a required countertop outlets (CEC 210.52)(C)(3)).
- Appliances and sinks break up the countertop run, requiring each side to comply individually (CEC210.52(C)4).
- Islands are to have a minimum of one receptacle for first 9 square feet and a second receptacle for every additional 18 square feet.

- 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 (CEC 210.52(C)(2), (3)).
- 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 78" long. Sheathed cable (Romex) may not be installed with a plug. It is not an approved flexible cord (CEC 422.16(B)(2)).
- A 20 amp branch circuit may be provided for the dishwasher and disposal (CEC 210.23). This receptacle shall be GFCI and AFCI protected (CEC 422.5(A)(7)).
- 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 (CEC 210.7(B)).
- Residential Kitchen Lighting is required to meet the energy efficiency standards. Provide a lighting schedule to verify compliance (150(k) California Energy Code).
- 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. (Exception from 150(k)(1)(cii and iii))
- High-Efficacy 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.

## **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 or steel flex duct not approved. Provide a back draft damper (CMC 504.3).
- Ducts for domestic downdraft grill/range ventilation installed under a concrete slab may be of approved schedule 40 PVC provided:
  - o The under floor trench in which the duct is installed shall be completely backfilled with sand or gravel.
  - o Not more than 1" of 6" diameter the PVC coupling may protrude above the floor surface.
  - o PVC pipe joints shall be solvent cemented to provide an air and grease tight duct.
  - o 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 (CMC 920.3.2).
- Kitchen local exhaust ventilation requires a minimum rate of 100 Cfm meeting the requirements of ASHRA 62.2. This includes a maximum sound rating of 3 sone @ 100 Cfm

(Table 403.7). Recirculation types are not allowed by code.

- 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.

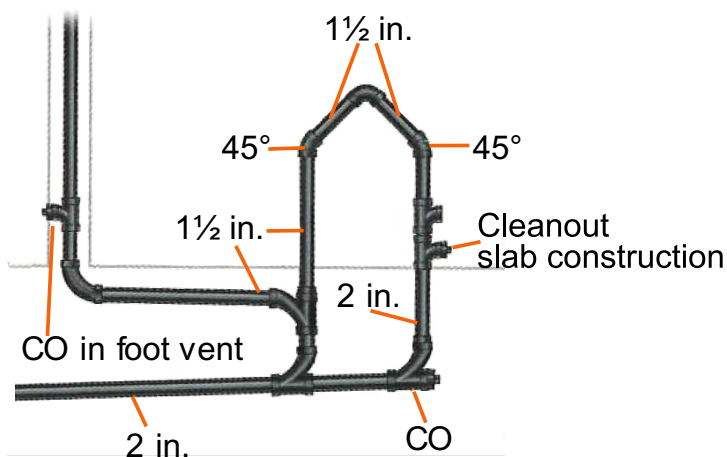
In some cases, the design of the structure will not allow the installation of a duct, typically in a multi-family unit (condo). In these cases an exemption may be applied for using the residential Request for Modification application and approval is based on a review by the Building Official.

## 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 (10 PSI for 15 minutes). A maximum 15 PSI gauge is required for the gas test.
- Gas lines that run under a slab shall run through an approved, vented, gas tight conduit (CPC 1210.1.6).
- An accessible shutoff valve, flex gas appliance connector followed by a “tee” sediment tap is the order of installation prior to each appliance in addition to any valve on the appliance (CPC 1212.6 and 1212.9).
- Provide maximum 6' long listed gas flexible connector and shut off to a free standing range (CPC1212.6).
- A listed air gap is required for the dishwasher drain (CPC 807.3); a loop provided inside the cabinet is not approved within the City of Dana Point.
- The maximum flow rate for the sink faucets is 1.8 GPM @ 60 psi (CGC 4.303.1.4.4).
- An air admittance valve is not approved for installation or use inside the dwelling.

## ISLAND VENT



Additional information is available from the following sources:

- The City of Dana Point, Building and Safety [www.danapoint.org](http://www.danapoint.org)
- The California Building Code series is available for review at the City of Dana Point, Building & Safety counter.
- California Energy Commission [www.energy.ca.gov/title24](http://www.energy.ca.gov/title24)
- California Lighting Technology Center [www.cltc.ucdavis.edu](http://www.cltc.ucdavis.edu)
- Advanced lighting Guidelines [www.newbuildings.org/lighting](http://www.newbuildings.org/lighting)
- California Association of Building Energy Consultants [www.cabec.org/abouttitle24.php](http://www.cabec.org/abouttitle24.php)
- Energy Star [www.energystar.gov](http://www.energystar.gov)
- Energy Videos available at [www.energyvideos.com](http://www.energyvideos.com)