



RESIDENTIAL FURNACE INSTALLATION AND REPLACEMENT

COMMUNITY DEVELOPMENT DEPARTMENT • BUILDING DIVISION
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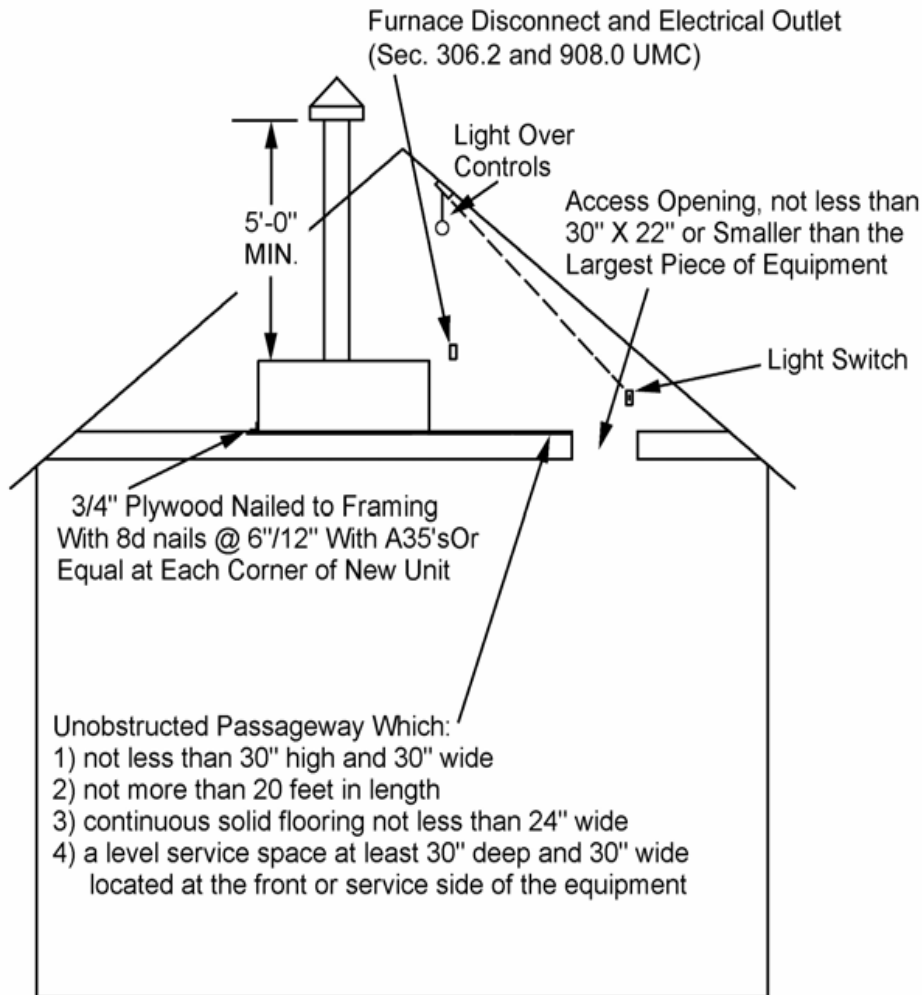
GENERAL INFORMATION

A building permit is required for furnace installations or replacements. A permit is required to replace an existing furnace and is required prior to installation. Following is a listing of the general requirements for furnace replacements based on the 2016 California Mechanical Code, 2016 California Plumbing Code, and the 2016 California Electrical Code.

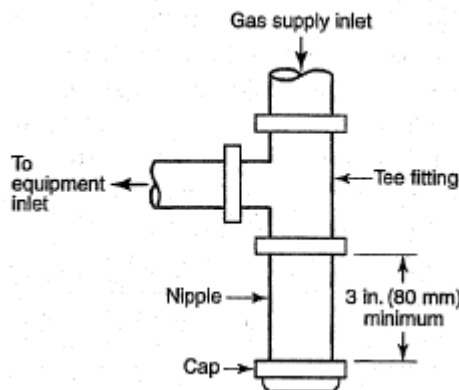
- An approved, independent means of disconnect for the electrical supply to each piece of equipment shall be provided in sight of the equipment served when the supply voltage exceeds 50 volts. [CMC 308, CEC 422.31(A&B), CEC 422.33(A)]
- A dedicated circuit shall be provided for the furnace. [CEC 422.12]
- A 120-volt service receptacle shall be located within 25 feet of, and on the same level as, the equipment for maintenance. The service receptacle shall not be connected on the load side of the required means of disconnect. [CMC 310.1]
- A permanent switch controlled lighting fixture shall be installed for maintenance of equipment is required and shall be accessible. Such fixture shall provide sufficient illumination to safely approach the equipment and perform the tasks for which access is provided. Control of the lighting shall be provided at the access entrance. (CMC 904.10.4 and CEC 210.70))
- Combustion air must be maintained per California Mechanical Code. [CMC Chapter 7]
- The clear space and distance to combustible materials around the furnace unit shall comply with the manufacturer's installation instructions. [CMC 904.2(1)]
- A sediment trap shall be installed on the gas line downstream of the appliance shut-off valve and as close to inlet of the equipment as practical. Refer to diagram on the reverse side of this page for installation details. [CPC 1211.8]
- Appliances generating a glow, spark or flame capable of igniting flammable vapors may be installed in a garage provided the pilots and burners or heating elements and switches are at 18 inches above floor level. [CMC 308.1]
Exception: Sealed combustion system appliances may be installed at floor level.
- When located in a garage and subject to vehicular damage, adequate barriers must be installed (e.g. 4" diameter steel pipe filled with concrete installed in a footing measuring 12" in diameter and 3' deep). [CMC 308.1.1]
- The furnace shall be properly anchored and supported to sustain vertical and horizontal loads within the stress limitations specified in the California Building Code. [CMC 303.5]
- All new installations and replacements require a completed Certificate of Compliance from the California Energy Commission (simplified prescriptive form CF-1R-ALT-HVAC based on the 2008 Building Energy Code until 7/1/14).

- Furnaces located in an attic area shall comply with the diagram on the reverse side of this page. Additionally, if the attic and roof is conventionally framed, ceiling joist under the location of the FAU unit shall be doubled with a minimum 2x6 joists. If the attic and roof framing is a pre-fabricated engineered truss system, an engineering report (wet stamped and signed by a licensed engineer) shall be submitted for review and approval prior to issuance of a building permit. [CMC Chapter 9]

ATTIC FURNACE DIAGRAM



SEDIMENT TRAP DIAGRAM



FEE ESTIMATE

Please refer to Cupertino's [Fee Estimator](#) to calculate permit fees. Use the following parameters for this type of permit:

VALUATION = Cost of unit and installation

PERMIT TYPE = Mechanical Permit

APPLIANCE / EQUIP TYPE = Furnace (Floor, Forced-Air or Gravity Type)

UNITS = Number of furnaces to be installed