City of Mountain View

COMMUNITY DEVELOPMENT DEPARTMENT
BUILDING DIVISION
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Mountain View, CA 94039-7540
650-903-6313 | MountainView.gov

FURNACE INSTALLATION AND REPLACEMENT GUIDE

FOR ONE-TO-TWO FAMILY DWELLINGS

SUBMITTAL REQUIREMENTS

A permit is required for all furnace installation and/or replacements. Permit shall be obtained prior to the start of the work.

Plans are usually not required. However, if the new furnace is in a new location, plans shall be provided. One electronic set of plans, digitally signed by the designer/architect, contractor, or homeowner responsible for preparing the plans. All plans submitted *(at minimum, include existing and new floor plans)* shall be a minimum plan size of 11" x 17" and **must be legible** to facilitate digital imaging as a permanent record after the project is completed.

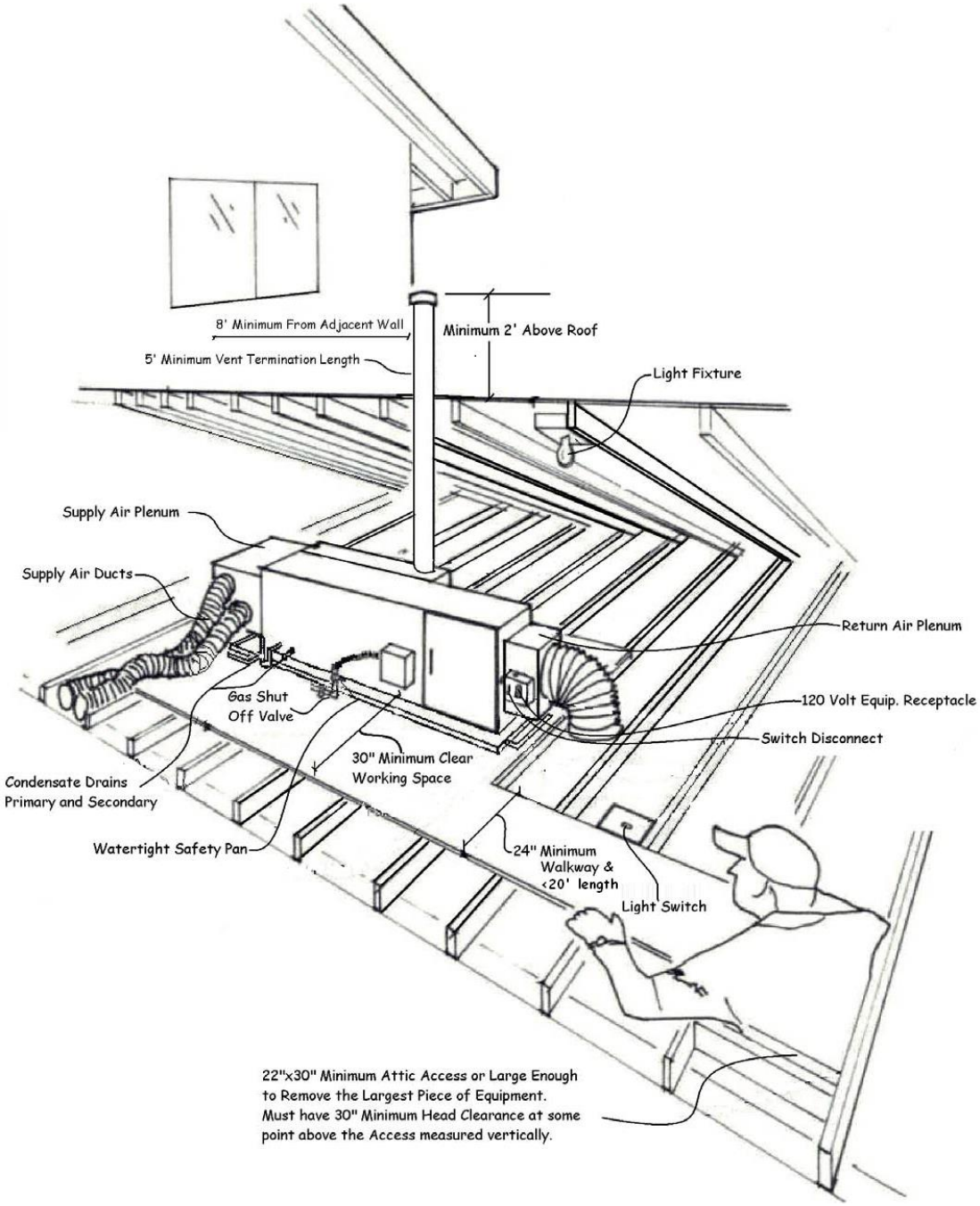
Exterior modifications to buildings require Planning review and approval prior to submittal to the Building Division.

If the property is overseen by a Homeowners Association *(and the scope of work is in the common area, exterior of a building or includes the alteration of walls)* a letter of authorization signed by the HOA, is required.

The following is a listing of the general code requirements based on the **2022** California Codes & Mountain View Municipal Code. This handout is intended to provide general information. If you have additional questions, please contact the Building Division at (650) 903-6313 or email us at building@mountainview.gov

BASIC CODE REQUIREMENTS

1. Appliances located in flood zones shall be elevated at or above the base flood elevation (CRC 322.1.6).
2. All new equipment shall be installed in accordance with manufacturer's specifications.
3. For equipment installed in attics, underfloor spaces, utility rooms and basements, at least one lighting outlet containing a switch or controlled by a wall switch or listed wall-mounted control device shall be installed for maintenance of equipment and shall be accessible. Control of the lighting shall be provided at the access entrance (CEC 210.70(3)).
4. An approved, independent means of disconnect for the electrical supply to each piece of the equipment shall be provided in sight of the equipment served (CEC 422.33(A) & CMC 301.4).
5. A dedicated circuit shall be provided for the central heating equipment (CEC 422.12).
6. Per the Mountain View City Code SEC. 8.51(C) a minimum of 200 amps service disconnect shall be required for one family dwelling and SEC. 8.51(D) a minimum of 125 amps service disconnect shall be required for other than one family dwelling.
7. Where a sediment trap is not incorporated as a part of the appliance, a sediment trap shall be provided on the gas line downstream of the appliance shut-off valve, as close to the inlet of the appliance as practical at the time of appliance installation (CPC 1212.9).
8. A 120-volt receptacle shall be located within 25 feet of the equipment for service and maintenance purposes. The receptacle outlet shall be on the supply side of the disconnect switch. The receptacle need not be located on the same level as the equipment (CMC 301.4).
9. Anchorage of equipment. Appliances designed to be fixed in position shall be securely fastened in place in accordance with the manufacturer's installation instructions. Support for appliances shall be designed and constructed to sustain vertical and horizontal loads within the stress limitations specified in the building code (CMC 303.4).
10. Furnaces located in an attic area shall comply with the figure below (CMC 304.4). Additionally, if new furnace is installed in attic, and the roof is conventionally framed, ceiling joists under the location of the FAU unit shall be doubled with minimum 2X6 joists. If the attic and roof framing is a prefabricated engineered truss system, an engineering report (wet stamped and signed by a licensed architect/engineer) shall be submitted for review and approval prior to issuance of a building permit.



FURNACE LOCATED IN ATTICS

11. Furnaces located in under-floor spaces shall comply with similar to appliances in attic (CMC 304.4). See figure above:
    - Minimum access of 22”x30”and not less than the largest component of the appliance
    - Where working height is less than 6’, the distance from the passageway access to the appliance shall not exceed 20’ length and minimum 24” wide
    - A level working area not less than 30”x30” is required in front of the service side of the appliance
    - A permanent 120-volt receptacle outlet and a luminaire shall be installed near the appliance. The switch controlling the luminaire shall be located at the entrance of the passageway.
12. Unless listed as flammable vapor ignition resistant the furnace located in a garage must be elevated so all burners and burner-ignition devices are located at not less than 18" above the floor (CMC 305.1).
13. If subject to vehicular damage, elevate or locate the furnace out of the normal path of vehicles or install protective barriers (e.g. 4” diameter steel pipe filled with concrete installed in a footing measuring 12” in diameter and 3’ deep and a minimum of 2’-9” above the finished floor) (CMC 305.1.1).
14. Combustion air must be provided/maintained as required by the California Mechanical Code (Chapter 7).

15. Plastic pipe and fittings used to vent appliances shall be installed in accordance with the appliance manufacturer's installation instructions. Where primer is required, it shall be of contrasting color (CMC 802.4.2).

16. Central heating furnaces shall be permitted to be installed in a closet located in the bedroom or bathroom, provided the closet is equipped with a listed, gasketed door assembly and a listed self-closing device; the door assembly shall be installed with a threshold and bottom door seal; all combustion air shall be obtained from the outdoors; and the closet shall be used for exclusive use of the furnace (CMC 904.1).

17. The clear space and distance to combustible materials around the listed units shall comply with the manufacturer's installation instructions (CMC 904.2).

18. In all climate zones, when a space-conditioning system is altered by the installation or replacement of space-conditioning system equipment (replacement of the air handler, outdoor condensing unit of a split system air conditioner or heat pump or cooling or heating coil) a Duct Air Leakage Test - An air leakage test, performed by a HERS rater, is required for altered existing ducts (CEnerC, Subchapter 9, 150.2(b)(1)(E)).

    Exceptions:

    - Duct systems that are documented to have been previously sealed as confirmed through field verification and diagnostic testing in accordance with procedures in the reference Residential Appendix Table RA3.1.
    - Duct system with less than 40 linear feet as determined by visual inspection.
    - Existing duct system constructed, insulated, or sealed with asbestos.

    If Duct Air Leakage Test, the HERS report completed by a HERS rater is required to be provided to the building inspector at the final inspection.

OTHER RELATED HANDOUTS

- Smoke Detector & Carbon Monoxide requirements
- Self-Certification - Smoke and Carbon Detectors
- Self-Certification – Plumbing Fixtures
- GFCI & AFCI requirements