



City of Santa Barbara  
Building & Safety Division  
**Minimum Residential FAU  
Requirements**

Community Development  
630 Garden Street  
805-564-5485

Owner \_\_\_\_\_ Address \_\_\_\_\_

Phone # \_\_\_\_\_ Parcel # \_\_\_\_\_

Contractor \_\_\_\_\_ Permit # BLD20 \_\_\_\_\_

Project description \_\_\_\_\_

Check the appropriate installation type below:

New  Replacement  Repair  Relocated

Check the appropriate location type below:

Roof  Attic  FAU closet  Under-floor  Garage

All work, design, equipment, materials and labor shall be in conformance with current federal, state, local laws and ordinances; C.B.C., C.M.C., C.P.C., C.E.C., S.B.M.C. Install equipment per manufactures specifications and provide manufactures instructions during inspection.

All work shall be subject to field verification by the City Inspectors. Additional permits shall be required if work exceeds the description above.

### Electrical Requirements

- 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. [CMC310, CEC 422.31(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. (CEC 210.70)

### Duct Air Leakage Test [CEES 150.2(b)(1)(E)].

An air leakage test, performed by a HERS rater, is required for existing ducts whenever the existing furnace is replaced, a new one is installed or an existing system is expanded. A completed CF1R form registered with CalCerts is required at the time of permit application. At the final inspection, the CF3R form completed by a HERS rater is required to be provided to the building inspector. A listing of certified HERS raters maybe found at: <http://www.energy.ca.gov/HERS/providers.html>

### Furnace Equipment Efficiency [CEES 110.2(a)]

Warm-air furnaces and unit heaters rated at less than 225,000 Btu/h shall have a minimum efficiency rating of 78% AFUE (Annual Fuel Utilization Efficiency).

**Clearance from Combustible Materials (CMC 904.2)**

The clear space and distance to combustible materials around the furnace unit shall comply with the manufacturer's installation instructions.

**Anchorage of Equipment (CMC 303.5)**

The furnace shall be properly anchored and supported to sustain vertical and horizontal loads within the stress limitations specified in the California Building Code.

**Plastic Vent Piping (CMC 802.4.2)**

Plastic pipe and fittings used to vent appliances shall be installed in accordance with the appliance manufacturer's installation instructions. When primer is required, it shall be of a contrasting color.

**FAU Located in a Garage (CMC 308.1)**

Furnaces located in a garage must be elevated so the pilot light and controls are at least 18" above the garage floor surface (unless the unit is listed as flammable vapor ignition resistant). If 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 and a minimum of 2'-9" above the finished floor).

**FAU Located in an Attic**

Attic access, service space (C.M.C 904, CRC R807) & ventilation:

- a) 30x22x30 inch high minimum unobstructed access, but not less than the largest equipment size.
- b) 30x30 inch minimum unobstructed passage to remove equipment, but not less than the largest equipment & maximum 20' distance from access to unit.
- c) 30x30 inch deep level service space located at the equipment service side.
- d) Provide additional combustion air in attic space where FAU is located as required per C.M.C. Chapter 7 or note special combustion air venting per manufactures design (verify availability from manufacture).
- e) FAU access flooring shall provide a minimum 24 wide solid surface to & a level 30"x30" surface in front of service side.
- f) Mechanical equipment area shall have required switching & lighting.
- g) Furnaces located in an attic area shall comply with the diagram at the bottom 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 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 engineer) shall be submitted for review and approval prior to issuance of a building permit.

**FAU Located Under-Floor**

Provide under-floor access, service space (C.M.C 307, CRC R408.4) & ventilation:

- h) 30x22 inch minimum unobstructed access with equipment, not less than largest equipment size.
- i) 30x30 inch minimum unobstructed passage to remove equipment, but not less than the largest equipment & maximum 20' distance from access to unit.
- j) 30x30 inch deep level service space located at the equipment service side.
- k) Provide additional combustion air in attic space where FAU is located as required per C.M.C. Chapter 7 or note special combustion air venting per manufactures design (verify availability from manufacture).
- l) Provide concrete or masonry lining where the passageway or service space exceeds 12" below grade.

**\*\*\*PLEASE NOTE \*\*\*** The installation of a new FAU may require the installation of a backwater device, smoke detectors and or carbon monoxide detectors. The installation of any of these may also require a separate permit and the work must be completed before any of the permits can be finalized. For further information, please contact the Building & Safety Division at 630 Garden St, SB CA or by calling (805) 564-5485.

Signature of Applicant \_\_\_\_\_ Date \_\_\_\_\_

Project Address \_\_\_\_\_ Permit # BLD20 \_\_\_\_\_