



CITY OF MANTECA COMMUNITY DEVELOPMENT DEPARTMENT

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Building Safety Division (209) 239-8421 • Planning Division (209) 239-8427 • Public Works/Engineering (209) 239-8460

Heating and Air Conditioning

NOTE: Check with your homeowners' association and architectural review committee for Conditions, Covenants & Restrictions (CC&R's). The City of Manteca has no regulatory authority to enforce or notify permit applicants of CC&R requirements, nor deny permits for non-compliance of CC&R's.

WHEN IS A PERMIT REQUIRED?

Except as permitted in Section 112.2, no mechanical system regulated by the California Mechanical Code shall be **installed, altered, repaired, replaced, or remodeled** unless a separate mechanical permit for each separate building or structure has first been obtained.

Examples include (but are not limited to):

- New HVAC installation on an existing home or business
- HVAC change-out/remodel/replacement including the air handler, coil, FAU, or condenser
- Relocation of an existing HVAC unit
- Removal of an HVAC unit or system
- Adding ducting to a business/residence



WHEN IS A PERMIT NOT REQUIRED?

A building permit is not required for the following types of mechanical work (per California Mechanical Code, Section 108.4):

HVAC permits are not required for the following:

1. Portable heating appliances, portable ventilating equipment, portable cooling unit, or a portable evaporative cooler.
2. Steam, hot water, or chilled water piping within any heating or cooling equipment regulated by the Mechanical Code.
3. Replacement of any minor part of an appliance that does not alter the original approval of equipment or make such equipment unsafe.
4. A self-contained refrigeration system containing 10 (ten) pounds or less of refrigerant or actuated by motors of 1 (one) horsepower or less, i.e. window air conditioners or cord and plug connected movable air conditioner.

HVAC INFORMATION

The California Energy Commission requires sealing of all conditioned air ducts and a refrigerant charge measurement or the installation of a thermal expansion valve (TXV). Duct leakage testing verification by a third-party HERS rater, independent from the installing company, is required for replacing HVAC equipment or certain components.

Duct Leakage testing is required when any of the following occurs:

- Complete HVAC replacement
- Heat Exchanger replacement
- Coil replacement
- Condenser Replacement
- Air Handler Replacement
- Any time more than 40 lineal feet of duct is added or replaced in an unconditioned space.

PERMIT APPLICATION REQUIREMENTS

1. **Completed Building Permit Application**
2. **All necessary and required California Energy Commission Documents (see following pages).**
3. **Any new installation will require plumbing, electrical, and structural documentation at the time of submittal.**
4. **Reverse side of this document completed and signed.**

Heating and Air Conditioning

Residential:

The Following State Energy Requirements (Title 24) apply to New HVAC systems installed in existing structure's systems & change-outs:

- 1) Title 24 CF1R and MF1R (MF1R if new construction or an addition) are required at the time of submittal for new construction; Re-model/Change-outs will be required the CF1R at the time of submittal. Please fill out all portions that are applicable to project. All projects will always require both the CF-6R, and, if duct testing is required, CF-4R at the time of inspection.
- 2) Heating equipment rating to be min. 78% efficient (Exception: Wall & floor furnaces; room heaters)
- 3) Central air conditioners & heat pumps less than 65k btu to be rated at min. 13 S.E.E.R.
- 4) Duct insulation to be min. R-6.
- 5) Set-back type thermostat required.
- 6) Sizing of equipment shall be performed using one of the following methods: ASHREA Handbook; SMACNA Installation Manual, or The Air Conditioning Contractors of America (ACCA) Manual J.
- 7) Duct testing is required if existing or new ducts of lengths 40' or more are located in unconditioned space and not insulated with asbestos. Exceptions:
 - a) 0.92 AFUE furnace installed (heaters only) **OR**
 - b) S.E.E.R 14/E.E.R 12 (cooling component), TXV, 0.92 AFUE furnace **OR**
 - c) S.E.E.R 14/E.E.R 12 (cooling component), TXV, 0.82 AFUE furnace, R-8 new ducts, R-4 existing ducts.

8) All unit weights shall be listed below when they are being installed on a ROOF or in an ATTIC. UNITS OF GREATER WEIGHT OR SIZE than the unit being replaced will require structural analysis and/or engineering.

Commercial:

The Following State Energy Requirements (Title 24) apply to new Commercial HVAC systems installed in existing buildings or change-outs of existing HVAC systems require the following documentation:

- 1) Title 24 Mech 1-C, Mech 2-C, Mech 3-C, and Mech 4-C forms are required at time of submittal. Mech 1-A through Mech 8-A forms are required at time of inspection. Please fill out all portions that are applicable to project.
- 2) Complete mechanical drawings are required to clearly indicate mechanical unit's location and duct/register location.
- 3) If it is a new installation a complete set of electrical and plumbing drawings will be required. The electrical drawing will show all wire sizes, conduit size, conduit type, lengths, locations, etc for the new unit being installed. The plumbing drawing will show all gas pipe sizing, location, lengths, and the listed btu of the HVAC system being installed.
- 4) Also, engineering calculations for seismic forces will be required to justify support of mechanical units being placed on roofs or in attics.
- 5) Duct testing is required when: (Duct testing requires Mech 5-A form at time of inspection)
 - a) Constant Volume System used; not Variable Air Volume (VAV) **AND**
 - b) Each HVAC system serves 5,000 sq. ft. or less of floor area **AND**
 - c) More than 25% of duct surface area located in unconditioned area/space
- 6) Elevations of the existing building will be required for verification that no rooftop mounted equipment will be visible from any public right-of-way. If it is visible from the public right away then it must be effectively screened per the City of Manteca Planning Department.
- 7) All unit weights shall be listed below when they are being installed on a ROOF or in an ATTIC. Units of greater weight than the unit being replaced will require structural analysis and/or engineering.

I have read the foregoing and understand and agree to what has been stipulated above. I also acknowledge that the information above represents only the general requirements of the 2005 California Energy Code.

Signature Block
Owner/Agent Signature:
Printed Name:
Company/Firm:
Date:

**Note:
This form is to be attached to inspection record card for review by job site inspector.**

For units to be located at ROOF or ATTIC:
Weight of each NEW and EXISTING Unit:
Size of each NEW and EXISTING Unit:
Spacing of rafter/joist:
Size of rafter/joist:
Spacing of rafter/joist:
Span of rafter/joist:
Slope of rafter/joist: