



CITY OF DIXON  
600 EAST A ST.  
DIXON, CA 95620-3697  
PHONE (707) 678-7000

Building Info [Building@cityofdixonca.gov](mailto:Building@cityofdixonca.gov)

## Residential Furnaces and HVAC

Please visit the Dixon Civic Access Portal [City of Dixon, CA](#) to apply for a residential HVAC changeout permit. Please see the bottom of page 2 if you are replacing your traditional Split Sytem (gas furnace) with a new all electric heat pump and/or mini-split.

The following items represent the most common correction items found by the City of Dixon Inspection staff when inspecting HVAC changeouts/replacements. Please review and use this checklist to save both yourself and the City of Dixon Inspection Staff from performing additional inspections.

### Common corrections include

- ✓ Provide the proper clearance between vent piping and combustible materials, e.g. wood, gypsum wallboard, etc. CMC 907.2
- ✓ Single-wall metal piping shall be secured with at least 3 sheet metal screws at each joint. CMC 603.9
- ✓ Provide protection of appliances from mechanical damage as indicated in Section CMC 305.1.1
- ✓ Single-wall connector max horizontal length shall be 75% height of chimney/vent. CMC 802.10.8.1
- ✓ Electrical disconnect within sight CMC 301.4. The branch-circuit overcurrent device shall be permitted to serve as the disconnecting means where the switch or circuit breaker is within sight of the appliance or be capable of being locked in the open position (lockable breaker). If manufacturer allows cord-and-plug for the appliance then a lockable main panel is acceptable. CEC 422.31 & CEC110.25
- ✓ Provide an electrical outlet within 25 feet (same level) of the appliance for service and maintenance purposes. 301.4 CMC.
- ✓ Tamper-resistant caps on outdoor refrigeration ports CMC 1105.11
- ✓ All outdoor equipment shall be seismically braced and secured in place CMC 303.4 and raised min 3 inches above ground. CMC 1105.2
- ✓ Provide required accessibility for inspection, service, repair, and replacement of all equipment and appliances. CMC 304
- ✓ All plastic piping that terminates to the exterior shall be protected by paint or other approved method to avoid deterioration from U.V. rays. Rodent proofing is required at penetrations per CMC 316.10.
- ✓ Primary drain lines trapped per manufacturer requirements CMC 310.5 and secondary drains to be in readily observed location CMC 310.2
- ✓ Sediment trap (drip leg) installed between gas shut-off valve and flex connector - typical. CPC 1312.9

- ✓ Where any equipment or appliance is installed in a space where damage is capable of resulting from condensate overflow, a drain line shall be provided and shall be drained by a waste pipe with a slope not less than 1/8<sup>th</sup> inch per foot (or 1%) of approved corrosion resistant material not sized smaller than the appliance outlet. Condensate or wastewater shall not drain over the public way.
  - In addition to the above one of the four (below) is required for condensate control. CMC 310.2(1),(2),(3) & (4)
  - A water level detecting device that will shut off the equipment or appliance in the event the primary drain is blocked
  - An additional watertight pan of corrosion-resistant material, with a separate drain line, installed beneath the cooling coil, unit, or the appliance to catch the overflow condensate due to a clogged primary condensate drain.
  - An additional drain line at a level that is higher than the primary drain line connection of the drain pan.
  - An additional watertight pan of corrosion-resistant material with a water level detection device installed beneath the cooling coil, unit, or the appliance to catch the overflow condensate due to a clogged primary condensate drain and to shut-off the equipment.
    - The additional pan or the additional drain line connection shall be provided with a drain line not less than 3/4 of an inch nominal pipe size, discharging at a point that is readily observed.
- ✓ Condensate drains require cleanouts CMC 310.3.1
- ✓ Listed (UL 2158A) transition ducts (flex) CMC 504.4 limited to 6 feet CMC 504.2.2, shall be single piece and not concealed CMC 504.2.2 & Manufacturers installation. Max 14 total horizontal and vertical feet including (2) 90 degree elbows. CMC 504.4.2.1
- ✓ Attach installation requirements to appliance CMC 303.1
- ✓ Gas utilization appliances in garages and in adjacent spaces open to the garage shall be installed so that burners and burner-ignition devices are located not less than 18-inches above the floor unless listed as flammable vapor ignition resistant. 305.1 CMC.
- ✓ Provide air for combustion and ventilation. 701.0 CMC.
- ✓ Provide working space 30x30 on the service side of the equipment CMC 304.1
- ✓ Structural calculations may be required for any attic or rooftop mounted equipment that requires framing.

## Heat Pumps

**Important Note:** If your permit is going to involve removing a gas-fired furnace and installing an electric heat pump (including mini-splits) then specific requirements will apply that are not included above. A newly installed heat pump permit will require the following items for submittal.

- 1) Residential load calculations\* please visit [Welcome to the Official Website of the City of Dixon, CA - Forms, Fees, and Permits](#)
- 2) An alternative to this would be the calculation as required in CEC 228.83(B) also located [Welcome to the Official Website of the City of Dixon, CA - Forms, Fees, and Permits](#). Look for SFR Existing L-Cal No HVAC
- 3) Manufacturers Installation requirements
- 4) Project to be submitted to an approved registry such as [CHEERS](#) and a CF-1R submitted with your permit application
- 5) Site plan will be required to show working clearance (ie. 3 feet) and location of unit.
- 6) When used we will require the complete listing and manufacturers installation requirements for Energy Management Systems including the requirements of CEC 220.60, CEC750, UL916, etc for Smart Panels, Span Panels. etc. Additional information may be required.
- 7) This type of permit will require plan review and is not available for "over-the-counter"
- 8) From the Dixon Access Portal [City of Dixon, CA](#) enter/create a log-in as required
- 9) **Select Permit Type:** Mechanical (Residential)
- 10) **Select Work Class:** HVAC Changeout (Fuel Source Change)
- 11) Further information can be found [Welcome to the Official Website of the City of Dixon, CA - Forms, Fees, and Permits](#)