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## **HVAC Load Calc and Duct Design Requirements for Single-family Permit Submittal**

***June 13, 2006***

1. City of Fort Collins adopted 2009 International Residential Code (IRC); amendment M1401.3 requires HVAC load calculations from a licensed mechanical contractor or engineer be submitted with each single-family permit application. The calculations must comply with ACCA manual J, 8th edition.
2. The load calculations above must be designed using the following climate design parameters:
  - a. Winter outdoor design dry-bulb= 4°F
  - b. Winter indoor design dry-bulb= 72°F
  - c. Summer outdoor design dry-bulb= 89°F
  - d. Summer indoor design dry-bulb= 75°F
  - e. Summer design wet-bulb= 62°F
  - f. Degree days heating= 6368
  - g. Degree days cooling= 479
3. Code amendment section M1601.1 requires duct sizing must conform to ACCA Manual D and be listed on the above load calculations. Keep in mind if the load calc specifies a certain duct size and the contractor plans to use an alternate standard size, the area of the duct in square inches must be equal to the designed size and be identified as "field installation" .
4. Data shown on the HVAC load calcs must match the values shown on whatever energy code compliance method is chosen and submitted with house plans. Examples of this are AFUE%, Seer, R-values, and U-factors.