



## City of Glenwood Springs Building Department

### Heat Load Calculation Design Conditions, Equipment Sizing & System Design Requirements

Heating and cooling load calculations shall be made using approved software or manuals, for any heating or cooling equipment installations for both new and existing buildings

Residential loads may be calculated using Manual J or software by Wrightsoft, Elite Software, Nitek HVAC, Adtek or other software programs as they become accredited by the ACCA.

Commercial loads may be calculated using ASHRAE/ACCA Standard 183 or software noted above that utilized Commercial Design Modules.

Heat and cooling load reports shall be provided and must meet the following requirements:

Indoor Conditions	Outdoor Conditions
Summer Temp: 75°F	Summer Temp: 90°F
Winter Temp: 72°F	Winter Temp: -2°F
Inside Humidity: 50% design for cooling with a summer grains of moisture difference of <41; humidification during heating season shall not cause visible or concealed condensation	Daily Range: High

The contractor shall ensure that the Construction Code Numbers are representative of the actual construction of the thermal envelope for existing buildings or proposed construction for new buildings, glazing and opaque doors shall be assigned proper U-values.

Equipment shall be sized based on the provisions of Manual S; Contractors must provide equipment specifications to the Building Department.

Design / Build contractors will be responsible to design heating and cooling systems that will meet the requirements specified in the reports generated during the calculation process.