



Residential Plans Examiner Review Form For HVAC System Design (Loads, Equipment, Ducts)

Form
RPER 2.0

County, Town, Municipality, Jurisdiction - Header Information

Contractor _____

Mechanical License # _____

Building Plan # _____

Home Address (Street or Lot #, Block, Subdivision) _____

Applicable Attachments

Manual J1 Form and Worksheet A: Yes No
 OEM performance data (heating, cooling, blower): Yes No
 Duct distribution sketch Yes No
 IRC Table R301.2 (climatic & geographic design criteria) Yes No

HVAC LOAD CALCULATION (IRCM1401.3)

Manual J Design Criteria and Loads

Location

Elevation _____ ft
 Altitude Correction Factor _____ ACF
 Latitude _____ ° N

Summer Design Conditions

Outdoor Cooling Temp _____ °F
 Indoor Cooling Temp _____ °F
 Cooling Temp Diff _____ °F
 Indoor Summer Design RH _____ %
 Coincident Wet Bulb Temp _____ °F

Manual J Loads

Total Heat Loss _____ Btu
 Sensible Heat Gain _____ Btu
 Latent Heat Gain _____ Btu
 Total Heat Gain _____ Btu

Winter Design Conditions

Outdoor Winter Temp _____ °F
 Indoor Winter Temp _____ °F
 Heating Temp Diff _____ °F

The heat loss / gain was calculated in accordance with ACCA Manual J? Y N

HVAC EQUIPMENT SELECTION (IRCM1401.3)

Heating Equipment

Furnace Boiler Electric Heat
 Single Stage Multi-Stage Modulating

Cooling Equipment

Air Conditioner Heat Pump
 Air-to-Air Geothermal Open Loop Geothermal Closed Loop
 Single Speed Multi-Stage Variable Speed

Model _____

Output _____ Btu Sizing Value _____ Btu
 Supplemental _____ Btu Size Limit _____ %
 Heat Load: Capacity _____ %

Model _____

Sensible _____ Btu Sizing Value _____ Btu
 Latent _____ Btu Size Limit _____ %
 Total _____ Btu Load: Capacity _____ %

Size Factor is within Manual S Size Limit? Y N

Size Factor is within Manual S Size Limit? Y N

HVAC DUCT DISTRIBUTION DESIGN (IRCM1601.1)

Design Airflow _____ Cfm Longest Supply Duct _____ Ft
 External Static Pressure (ESP) _____ IWC Longest Return Duct _____ Ft
 Component Pressure Loss (CPL) _____ IWC Total Effective Length (TEL) _____ Ft
 Available Static Pressure (ASP) _____ IWC Friction Rate _____ IWC
 ESP - CPL = ASP _____ (ASP x 100) / TEL = Friction Rate _____

Duct Materials Used

Trunk Duct: Duct Board Sheet metal
 Flex Lined Sheet metal Other
 Branch Duct: Duct Board Sheet metal
 Flex Lined Sheet metal Other

Ducts are sized per Manual D? Y N

I declare the load calculation, equipment selection, and duct system design were rigorously performed based on the building plan listed above and understand the claims made on these forms may be subject to review and verification.

Date _____

Contractor's Printed Name _____

Contractor's Signature _____