



RESIDENTIAL HEAT LOSS AND HEAT GAIN CERTIFICATION FORM FOR FORCED AIR SYSTEMS (PER ZONE)

Property Address (Masterfile house type): _____

Masterfile options: _____

Building Permit #: _____ Total Floor Area (SF): _____ Zone: _____

1. Winter Design Conditions:

- A. Temperature: Outside: _____ °F (0° - 10°F) Inside: _____ °F (68° - 72°F)
- B. Total calculated heat loss = _____ Btuh
- C. Heat Factor = $\frac{\text{cfm capacity of equipment in heating mode}}{\text{total heat loss of the zone}} = \frac{3H}{1B} =$ _____

2. Summer Design Conditions:

- A. Temperature: Outside: _____ °F DB (92° - 95°F) _____ °F WB (74° - 77°F)
Inside: _____ °F DB (75° - 78°F)
- B. Total calculated heat gain = _____ Btuh
- C. (Structure) Total sensible gain = _____ Btuh
- D. Cooling factor = $\frac{\text{cfm capacity of equipment in cooling mode}}{\text{total sensible heat gain of the zone}} = \frac{4F}{2C} =$ _____

3. Heating Equipment Data:

- A. Manufacturer: _____
- B. Furnace Model No.: _____
- C. Input: _____ Btuh
- D. Output: _____ Btuh
- E. Air Handler Model No.: _____
- F. Fuel Type _____ Heat Strip _____ Btuh
- G. Heat Pump Output @ 0°-10°F: _____ Btuh
- H. Actual Fan CFM: _____ @ 0.5 ESP

4. Cooling Equipment Data:

- A. Manufacturer: _____
- B. A/C Model No.: _____
- C. Heat Pump Model No.: _____
- D. Total Capacity @ Evaporator: _____ Btuh
- E. Sensible Capacity (equipment): _____ Btuh
- F. Actual Fan CFM: : _____ @ 0.5 ESP

5. Air Distribution: Please note: all ductwork shall be designed and installed per the *Virginia Uniform Statewide Building Code*. Separate certification and air distribution forms are required for each zone in multiple zone houses.

A	B	C	D	E	F	G	H	I	J
Room/Area	Area SF	Heating CFM	Cooling CFM	Quantity & Outlet Size	Quantity & Feeder Duct Size	Heat Loss Btu/h	Sensible Heat Gain Btu/h	Return Air Duct	Return Air Grille
Basement									
Rec Room									
Foyer									
Kitchen									
Family Room									
Living Room									
Dining Room									
Den									
Bedroom 1									
Bedroom 2									
Bedroom 3									
Bedroom 4									
Hall 1									
Hall 2									
Walk-in Closet									
Bath 1									
Bath 2									
Bath 3									
TOTAL									

I hereby certify as the architect/engineer, owner, master tradesman, that the above information is accurate and in conformance with ACCA's Manual J, the ASHRAE Handbook of Fundamentals or other recognized methods.

Name: _____ License #: _____

Company: _____ Telephone: _____