



# CITY OF COEUR D'ALENE Residential HVAC System Design Form

Building Permit No. \_\_\_\_\_

Please **COMPLETE** "**ALL**" Fields Below  
(For new dwellings submitted for building permits  
after 01-01-2010)

### DESIGNATED CONTACT PERSON

Name: \_\_\_\_\_  
Phone: \_\_\_\_\_ Cell: \_\_\_\_\_  
E-mail: \_\_\_\_\_

Mechanical Contractor: \_\_\_\_\_

License Number: \_\_\_\_\_

Phone Number: \_\_\_\_\_

E-mail: \_\_\_\_\_

Job Address: \_\_\_\_\_

### REQUIRED ATTACHMENTS

### ATTACHED

- |   |     |                          |
|---|-----|--------------------------|
| 1. Manufacturer's Performance Data Sheets | Yes | <input type="checkbox"/> |
| 2. Manual D Worksheets                    | Yes | <input type="checkbox"/> |
| 3. Duct Distribution Line Drawing         | Yes | <input type="checkbox"/> |
| 4. Choose one (1) of the following:       |     |                          |
| a) Manual J1 Form & Worksheets            | Yes | <input type="checkbox"/> |
| b) MJ1AE Form & Worksheets*               | Yes | <input type="checkbox"/> |
| c) Other Approved Form & Worksheets       | Yes | <input type="checkbox"/> |

### HVAC LOAD CALCULATIONS (from worksheet; Per 2018 IRC M1401.3)

Design Conditions:

#### Winter Design Conditions:

Outdoor Temperature \_\_\_\_\_  
Indoor Temperature \_\_\_\_\_  
Total Heat Loss \_\_\_\_\_ btu

#### Summer Design Conditions:

Outdoor Temperature \_\_\_\_\_  
Indoor Temperature \_\_\_\_\_  
Latent Heat Gain \_\_\_\_\_  
Total Heat Gain \_\_\_\_\_ btu

Building Construction Information:

#### Building:

Number of Bedrooms \_\_\_\_\_  
Conditioned Floor Area \_\_\_\_\_ sq ft  
Number of Occupants \_\_\_\_\_ bedrooms + 1

#### Windows:

Eave Overhang Depth \_\_\_\_\_ ft  
U - Factor \_\_\_\_\_

#### # Skylights: \_\_\_\_\_

Direction Orientation of Front Door: \_\_\_\_\_

### HVAC EQUIPMENT SELECTION (Per 2018 IRC M1401.3)

#### Heating Equipment Data:

Equipment Type \_\_\_\_\_  
Manufacturer \_\_\_\_\_  
Model Number \_\_\_\_\_  
Heating Capacity \_\_\_\_\_

#### Cooling Equipment Data:

Equipment Type \_\_\_\_\_  
Manufacturer \_\_\_\_\_  
Model Number \_\_\_\_\_  
Cooling Capacity \_\_\_\_\_

#### Blower Data:

Heating cfm \_\_\_\_\_  
Cooling cfm \_\_\_\_\_  
Static Pressure \_\_\_\_\_

### HVAC DUCT DISTRIBUTION DESIGN (Per 2018 IRC M1601.1)

Design Airflow _____	Longest Supply Run _____	Trunk Type (circle 1):	Branch Type (circle 1):
External Static Pressure _____	Longest Return Run _____	duct board, flex,	duct board, flex,
Pressure Losses _____	Total Effective Length _____	sheet metal, other:	sheet metal, other:
Available Static Pressure _____	Friction Rate _____		

(Available Static Pressure = ESP-CP) (Friction Rate = ASP x 100 / TEL)

The load calculations, equipment selection, and duct system design were performed based on the plans as submitted for a Building Permit. The system will be installed in the field per the approved equipment and duct design.

CONTRACTOR (Please Print) \_\_\_\_\_

Contractor Signature: \_\_\_\_\_ Date \_\_\_\_\_

\* If Home qualifies for MJ1AE form base on Abridged Edition Checklist