



# RESIDENTIAL HVAC SYSTEM DESIGN FORM

KOOTENAI COUNTY COMMUNITY DEVELOPMENT  
451 Government Way, Coeur d'Alene, ID 83814 (208) 446-1070

## AGENCY USE ONLY

MECHANICAL PERMIT #: \_\_\_\_\_  
BUILDING PERMIT #: \_\_\_\_\_  
ELECTRONIC SUBMITTAL: YES: \_\_\_\_\_ NO: \_\_\_\_\_

PLEASE **COMPLETE ALL** APPLICABLE FIELDS BELOW

## DESIGNATED CONTACT PERSON

NAME: \_\_\_\_\_  
PHONE: \_\_\_\_\_ CELL: \_\_\_\_\_  
EMAIL: \_\_\_\_\_

## MECHANICAL CONTRACTOR

CONTRACTOR NAME: \_\_\_\_\_  
LICENSE NUMBER: \_\_\_\_\_ PHONE: \_\_\_\_\_ EMAIL: \_\_\_\_\_

## ATTACHMENTS

### REQUIRED ATTACHMENTS

\_\_\_\_ MANUFACTURER'S PERFORMANCE DATA SHEET  
\_\_\_\_ MANUAL D WORKSHEETS  
\_\_\_\_ DUCT DISTRIBUTION LINE DRAWINGS

### CHOOSE ONE (1) OF THE FOLLOWING:

\_\_\_\_ MANUAL J1 FORM & WORKSHEET:  
OR \_\_\_\_ MJ1AE FORM & WORKSHEET:  
OR \_\_\_\_ OTHER APPROVED FORM & WORKSHEETS:

## HVAC LOAD CALCULATIONS (FROM WORKSHEET; PER 2012 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: \_\_\_\_\_ BTU  
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: \_\_\_\_\_  
# OF SKYLIGHTS: \_\_\_\_\_  
DIRECTION ORIENTATION OF FRONT DOOR: \_\_\_\_\_

## HVAC EQUIPMENT SELECTION (PER 2012 IRC M1401.3)

### HEATING EQUIPMENT DATA:

EQUIPMENT TYPE: \_\_\_\_\_  
MANUFACTURER: \_\_\_\_\_  
MODEL NUMBER: \_\_\_\_\_  
HEATING CAPACITY: \_\_\_\_\_

### COOLING EQUIPMENT DATA:

EQUIPMENT TYPE: \_\_\_\_\_  
MANUFACTURER: \_\_\_\_\_  
MODEL NUMBER: \_\_\_\_\_  
TOTAL COOLING CAPACITY: \_\_\_\_\_

### BLOWER DATA:

HEATING CFM: \_\_\_\_\_  
COOLING CFM: \_\_\_\_\_  
STATIC PRESSURE: \_\_\_\_\_

## HVAC DUCT DISTRIBUTION DESIGN (PER 2012 IRC M1601.1)

DESIGN AIRFLOW: \_\_\_\_\_ LONGEST SUPPLY RUN: \_\_\_\_\_  
EXTERNAL STATIC PRESSURE: \_\_\_\_\_ LONGEST RETURN RUN: \_\_\_\_\_  
COMPONENT PRESSURE LOSSES: \_\_\_\_\_ TOTAL EFFECTIVE LENGTH: \_\_\_\_\_  
AVAILABLE STATIC PRESSURE: \_\_\_\_\_ FRICTION RATE: \_\_\_\_\_  
TRUNK TYPE (SELECT 1) DUCT BOARD: \_\_\_\_\_ SHEET METAL: \_\_\_\_\_ FLEX: \_\_\_\_\_ OTHER: \_\_\_\_\_  
BRANCH TYPE (SELECT 1) DUCT BOARD: \_\_\_\_\_ SHEET METAL: \_\_\_\_\_ FLEX: \_\_\_\_\_ OTHER: \_\_\_\_\_

(AVAILABLE STATIC PRESSURE = ESP-CPL) (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 EQUIPMENT AND DUCT DESIGN AS APPROVED WILL BE INSTALLED IN THE FIELD

OWNER OR AUTHORIZED AGENT SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_

(PRINT NAME)

- IF HOME QUALIFIES FOR MJ1AE FORM BASE ON ABRIDGE EDITION CHECKLIST