

Energy Calculation Worksheet

PRINT CLEARLY

Date: _____

Address: _____

Contractor: _____ Contact Person: _____

Phone Number: _____

Complete this form. Your application **will not** be processed unless all required information is available for review.

Code Type: (check one) _____ Category I _____ 2000 Energy Code (include Prescriptive Path Worksheet)

Energy Calculations: (check one) _____ Cook Book _____ MNCheck _____ Exterior Envelope

Furnace Type: (check one)

_____ Sealed Combustion _____ Power Vented _____ Direct Vented _____ Other

Furnace _____ Make _____ and _____ Model:

Water Heater: (check one) _____ Sealed _____ Power Vent _____ Natural Draft
_____ Electric

Fireplace: List _____ fuel _____ type _____ and _____ venting

List all exhausting appliances with CFM on the back (bath fans, range hood, dryer)

Heat Recovery System: (check one) _____ Yes _____ No

Ventilation: Describe how the required ventilation will be achieved. Include all make up air. Ventilation worksheet required. (Use back side if needed.)

Information required on building plans:

Elevations

Floor plans (sky light location)

Complete structural information

Footing and foundation plan

Cross section:

- Wall construction

- Rim joist detail (with air barrier detail)

- Interior and exterior air barrier detail

- Truss detail (7" heel)

- Insulation and vapor barrier

Window and door U values

Building Address: _____

Contractor: _____

House conditioned floor area (including the basement) _____ square feet

Number of bedrooms (finished) _____

Number of bedrooms (unfinished) _____

VENTILATION QUANTITY:

A. People ventilation requirement per square foot (see chart) _____ CFM

B. People ventilation (# of bedrooms x 15 + 15) _____ CFM

2 people first bedroom plus 1 person each additional bedroom.

Add 1 bedroom in each unfinished level if not on plan.

**TOTAL VENTILATION REQUIRED PER SQUARE FOOT OF AREA
.35 AC/HR PEOPLE VENTILATION**

**SIZING OF PASSIVE MAKEUP AIR OPENINGS
CATEGORY 1 CONSTRUCTION**

	8' CEILING	9' CEILING
1000 SQ FT	47CFM.....	53CFM
1100 SQ FT	52CFM.....	58CFM
1200 SQ FT	56CFM.....	63CFM
1300 SQ FT	61CFM.....	69CFM
1400 SQ FT	66CFM.....	74CFM
1500 SQ FT	70CFM.....	79CFM
1600 SQ FT	75CFM.....	84CFM
EACH ADDITIONAL 100 ADD 5 CFM		
2000 SQ FT	94CFM.....	105CFM
2500 SQ FT	117CFM.....	132CFM
3000 SQ FT	140CFM.....	158CFM
3500 SQ FT	164CFM.....	184CFM
4000 SQ FT	187CFM.....	210CFM
4500 SQ FT	210CFM.....	237CFM
5000 SQ FT	234CFM.....	263CFM

DUCT DIAMETER	
3INCH	35CFM
4INCH	60CFM
5INCH	100CFM
6INCH	140CFM
7INCH	190CFM
8INCH	250CFM
9INCH	320CFM
10INCH	400CFM

Step 1: Ventilation Equipment Requirements (check to confirm compliance).

_____ Total ventilation required (CFM) equals the larger of A or B above. **IF HRV, SKIP TO**

STEP 2.

_____ Size of passive opening (see chart).

_____ People ventilation fans listed for continuous operation and sound rating should not exceed 1.0 sone (surface mounted) or 1.5 zone (all others).

Step 2: Heat Recovery Ventilator (HRV).

_____ HRV meets UL standard 1812 or equivalent.

_____ HRV should have a permanent label of net air flow and sensible recovery efficiency.

Distribution, Installation and Certification Requirements

_____ Direct vent, power vent or sealed combustion equipment.

_____ All ducts outside the interior air barrier sealed with UL 181 or equivalent product.

_____ Controls for people ventilation are readily accessible and labeled.

_____ If passive makeup air opening ductwork is connected to furnace ductwork, or ventilation air not distributed to

_____ each room, controls are installed to run the furnace blower intermittently to distribute outdoor air to habitable

_____ rooms (i.e., fan recycler – interlock system).

CFM Kitchen Hood _____ Amount

CFM Dryer _____ Amount

CFM Bathfans _____ Amount

