

**Abbreviated Report Form N1107.1  
Heating Energy Analysis Comparison Report**

Builder's Name: \_\_\_\_\_  
 Project Address: \_\_\_\_\_  
 City/Township/County: \_\_\_\_\_

PROPOSED ALTERNATIVE HOUSE		STANDARD DESIGN HOUSE	
ROOF/CEILING (INC. SKYLIGHTS)	SUBTOTALS	ROOF/CEILING (INC. SKYLIGHTS)	SUBTOTALS
$A_1 \text{ _____ } / R_1 \text{ _____ } = A_1 / R_1 \text{ _____}$ $A_2 \text{ _____ } / R_2 \text{ _____ } = A_2 / R_2 \text{ _____}$ $A_3 \text{ _____ } / R_3 \text{ _____ } = A_3 / R_3 \text{ _____}$ $A_1 / R_1 + A_2 / R_2 + A_3 / R_3 =$ $\text{_____} / R =$ Total Roof/Ceiling Area	Line 1	$\text{_____} \times 0.0204 =$ Total Roof/Ceiling Area (all zones)	Line A
GROSS WALL		GROSS WALL	
Opaque Wall (Does not include band joist, windows, doors, etc.) $A_1 \text{ _____ } / R_1 \text{ _____ } = A_1 / R_1 \text{ _____}$ $A_2 \text{ _____ } / R_2 \text{ _____ } = A_2 / R_2 \text{ _____}$ $A_1 / R_1 + A_2 / R_2 =$ $\text{_____}$	Line 2		
Band Joist $A \text{ _____ } / R \text{ _____ } = A / R \text{ _____ } =$ $\text{_____}$	Line 3		
Fenestration and Doors, Windows $A_1 \text{ _____ } / R_1 \text{ _____ } = A_1 / R_1 \text{ _____}$ $A_2 \text{ _____ } / R_2 \text{ _____ } = A_2 / R_2 \text{ _____}$ $A_3 \text{ _____ } / R_3 \text{ _____ } = A_3 / R_3 \text{ _____}$ $A_1 / R_1 + A_2 / R_2 + A_3 / R_3 =$ $\text{_____}$	Line 4		
Doors $A_1 \text{ _____ } / R_1 \text{ _____ } = A_1 / R_1 \text{ _____}$ $A_2 \text{ _____ } / R_2 \text{ _____ } = A_2 / R_2 \text{ _____}$ $A_1 / R_1 + A_2 / R_2 =$ $\text{_____}$	Line 5		
Other $A \text{ _____ } / R \text{ _____ } = A / R \text{ _____ } =$ $\text{_____}$			
Total Gross Wall Area $\text{_____}$	Line 6		
GROSS WALL SUBTOTAL A/R (Lines: 2+3+4+5+6) $\text{_____}$	Line 7	$\text{_____} \times 0.093 =$ Total Gross Wall Area (all zones)	Line B

FOUNDATION/FLOOR	SUBTOTALS	FOUNDATION/FLOOR	SUBTOTALS
Floors Over Unconditioned Spaces A _____ /R _____ = A/R _____ =	_____ Line 8	Floors Over Unconditioned Spaces _____ x 0.0476 =	_____ Line C
Slab on Grade Floors (Area = Perimeter x 2') A _____ /R _____ = A/R _____ =	_____ Line 9	Slab on Grade (Unheated) Z <sub>1</sub> 0.0909 _____ x Z <sub>2</sub> 0.0769 =	_____ Line D
		Total Slab Edge Area Z <sub>3</sub> 0.050	
		Slab on Grade (Heated) Z <sub>1</sub> 0.0769 _____ x Z <sub>2</sub> 0.0667 =	_____ Line E
		Total Slab Edge Area Z <sub>3</sub> 0.050	
Crawl Space Walls (Area: Top foundation wall to average finished grade) A _____ /R _____ = A/R _____ =	_____ Line 10	Crawl Space _____ x 0.050 =	_____ Line F
		Total Crawl Space Wall Area _____ (all zones)	
Basement Walls (Area: Top foundation wall to average finished grade) A <sub>1</sub> _____ /R <sub>1</sub> _____ = A <sub>1</sub> /R <sub>1</sub> _____ A <sub>2</sub> _____ /R <sub>2</sub> _____ = A <sub>2</sub> /R <sub>2</sub> _____ A <sub>1</sub> /R <sub>1</sub> + A <sub>2</sub> /R <sub>2</sub> =	_____ Line 11	Basement Walls Z <sub>1</sub> 0.090 _____ x Z <sub>2</sub> 0.090 =	_____ Line G
		Total Gross Basement Wall Area Z <sub>3</sub> 0.055	
Basement Windows A _____ /R _____ = A/R _____ =	_____ Line 12		
Total Gross Basement Wall Area			
FOUNDATION/FLOOR SUBTOTAL A/R (Lines: 8+9+10+11+12)	_____ Line 13	FOUNDATION/FLOOR SUBTOTAL A/R (Lines: C+D+E+F+G)	_____ Line H
PROPOSED ALTERNATIVE HOUSE SUB-TOTAL A/R (Lines: 1+7+13)	_____ Line 14	STANDARD DESIGN HOUSE SUB-TOTAL A/R (Lines: A+B+H)	_____ Line I

N1107.1.1 Alternative design constants. The alternative design constants of table N1107.1 may be used for

HEATING EQUIPMENT EFFICIENCY (If the same as Standard House, go to line 16 or 17) (Oil or Gas Fired) AFUE: _____ % Line 14: _____ = Adjusted A/R = AFUE: 0. _____	_____ Line 15	HEATING EQUIPMENT EFFICIENCY (Oil or Gas Fired) AFUE: 78% Line I: _____ = Adjusted A/R = AFUE: 0.78	_____ Line J
AIR LEAKAGE RATE (If the same as Standard House, go to line 17) _____ ACH x _____ ft <sup>3</sup> x 0.018 = Air Changes per Hour Volume of House	_____ Line 16	AIR LEAKAGE RATE 0.55 ACH x _____ ft <sup>3</sup> x 0.018 =Volume of House	_____ Line K
PROPOSED ALTERNATIVE HOUSE TOTAL (Lines: 15+16) Equal to or less than line L to pass	_____ Line 17	STANDARD DESIGN LIMIT TOTAL (Lines: J+K)	_____ Line L

the specific site weather data (heating degree days) for the proposed alternative design.