

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
$A_1 \text{ ______ } / R_1 \text{ ______ } = A_1 / R_1 \text{ ______ }$ $A_2 \text{ ______ } / R_2 \text{ ______ } = A_2 / R_2 \text{ ______ }$ $A_3 \text{ ______ } / R_3 \text{ ______ } = A_3 / R_3 \text{ ______ }$ $A_1 / R_1 + A_2 / R_2 + A_3 / R_3 =$	Line 1		
Total Roof/Ceiling Area $\text{______} / R =$	Line 1	Total Roof/Ceiling Area $\times 0.0204 =$ (all zones)	Line A
GROSS WALL		GROSS WALL	
Opaque Wall (Does not include band joist, windows, doors, etc.) $A_1 \text{ ______ } / R_1 \text{ ______ } = A_1 / R_1 \text{ ______ }$ $A_2 \text{ ______ } / R_2 \text{ ______ } = A_2 / R_2 \text{ ______ }$ $A_1 / R_1 + A_2 / R_2 =$	Line 2		
Band Joist $A \text{ ______ } / R \text{ ______ } = A / R \text{ ______ } =$	Line 3		
Fenestration and Doors, Windows $A_1 \text{ ______ } / R_1 \text{ ______ } = A_1 / R_1 \text{ ______ }$ $A_2 \text{ ______ } / R_2 \text{ ______ } = A_2 / R_2 \text{ ______ }$ $A_3 \text{ ______ } / R_3 \text{ ______ } = A_3 / R_3 \text{ ______ }$ $A_1 / R_1 + A_2 / R_2 + A_3 / R_3 =$	Line 4		
Doors $A_1 \text{ ______ } / R_1 \text{ ______ } = A_1 / R_1 \text{ ______ }$ $A_2 \text{ ______ } / R_2 \text{ ______ } = A_2 / R_2 \text{ ______ }$ $A_1 / R_1 + A_2 / R_2 =$	Line 5		
Other $A \text{ ______ } / R \text{ ______ } = A / R \text{ ______ } =$			
Total Gross Wall Area	Line 6		
GROSS WALL SUBTOTAL A/R (Lines: 2+3+4+5+6)	Line 7	Total Gross Wall Area $\times 0.093 =$ (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 = Total Floor Area (all zones)	Line C
Slab on Grade Floors (Area = Perimeter x 2') A _____ /R _____ = A/R _____ =	Line 9	Slab on Grade (Unheated) _____ Z ₁ 0.0909 _____ x Z ₂ 0.0769 = Total Slab Edge Area Z ₃ 0.050	Line D
Crawl Space Walls (Area: Top foundation wall to average finished grade) A _____ /R _____ = A/R _____ =	Line 10	Slab on Grade (Heated) _____ Z ₁ 0.0769 _____ x Z ₂ 0.0667 = Total Slab Edge Area Z ₃ 0.050	Line E
Basement Walls (Area: Top foundation wall to average finished grade) A ₁ _____ /R ₁ _____ = A ₁ /R ₁ _____ A ₂ _____ /R ₂ _____ = A ₂ /R ₂ _____ A ₁ /R ₁ + A ₂ /R ₂ =	Line 11	Crawl Space _____ x 0.050 = Total Crawl Space Wall Area (all zones)	Line F
Basement Windows A _____ /R _____ = A/R _____ =	Line 12	Basement Walls _____ Z ₁ 0.090 _____ x Z ₂ 0.090 = Total Gross Basement Wall Area Z ₃ 0.055	Line G
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 ³ x 0.018 = Air Changes per Hour Volume of House	Line 16	AIR LEAKAGE RATE 0.55 ACH x _____ ft ³ 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.