

\_\_\_\_\_ **"S PERMIT" FROM COUNTY:** If you have water and/or sewer available you must obtain a "S" Permit This is a County Capital Improvement fund. This permit must be acquired before your building permit is pulled in the township. You must show proof of purchase by giving us a copy of the receipt. **732-7870**

\_\_\_\_\_ **TWO COMPLETE SETS OF CONSTRUCTION PRINTS:** Detailed construction prints containing stair detail and a cross section.

\_\_\_\_\_ **BUILDING PERMIT APPLICATION FILLED OUT COMPLETELY**

\_\_\_\_\_ **DETAILED PLOT PLAN:** This must be on a standard size sheet of paper showing all side, rear, and front setback distances, also show location of curb and/or driveway cuts.

\_\_\_\_\_ **WATER & SEWER PERMIT:** if public sewer and/or water are available to property, a permit is to be obtained with the building permit. A licensed sewer contractor is required to make the tap in.

**SEWER CONTRACTOR** \_\_\_\_\_ **WATER METER SIZE** \_\_\_\_\_

\_\_\_\_\_ **SEWER PERMIT BOND:** Everyone is required to post this bond when a sewer tap is purchased.

\_\_\_\_\_ **SEPTIC PERMIT:** If no public sewer is available, a septic permit from the Genesee County Health Department is required. It must be the actual permit, not the application form. **257-3612**

\_\_\_\_\_ **WELL PERMIT:** If no city water is available, a well permit from the Genesee County Health Department if required. It must be the actual permit, not the application form. **257-3612**

\_\_\_\_\_ **SOIL EROSION:** A copy of the Soil Erosion Control Permit (SECP) or a waiver of the SECP by the Genesee County Drain Commission located at 4610 Beecher Road, phone# 732-1590

\_\_\_\_\_ **LEGAL DESCRIPTION:** We must have a copy of legal description

\_\_\_\_\_ **STREET ADDRESS:** You must supply us with a street address. Street address must be in Numbers not less than 5" in height and clearly visible from the road. Said numbers shall be in Place before final inspection for occupancy. See attached form.

\_\_\_\_\_ **DRIVEWAY PERMIT:** Must apply at **County Road Commission, 211 West Oakley St., Flint, (810)767-4920**

\_\_\_\_\_ **PROOF OF OWNERSHIP:** A copy of the recorded Warranty deed or Land contract. If you have not received the recorded copy back from County yet , you may submit the unrecorded copy of the Warranty Deed or Land Contract along with a list of the Government recording and transfer charges showing that it was submitted for recording. (All of this paperwork should be included in your closing paperwork).

\_\_\_\_\_ **ENERGY CODE WORKSHEET:** homeowner or contractor must fill these out.

\_\_\_\_\_ **PERFORMANCE BOND:** You need to be aware that a performance bond will have to be posted if there is any site work that is unfinished; before a certificate of occupancy can be issued

\_\_\_\_\_ **STREET TREE PER SITE PLAN –** All residential developments must have street trees placed every 25 lineal feet. (Most residential lots in subdivisions will require 1 tree, please see approved site plan landscaping page.)

\_\_\_\_\_ **10,000 BOND –** is a 10,000 bond required along with metes & bounds legal description with ingress & egress for this site.

PLEASE SEND COMPLETED PACKET TO: DAVISON TOWNSHIP 1280 N IRISH RD, DAVISON MI 48423 TELEPHONE (810) 653-4166 FAX (810) 658-3435

# Davison Township Building Permit Application

## Commercial/Residential

**Building Department:** 1280 N Irish Rd – Davison 48423

**Ph:** 810-653-4156 **Fax:** 810-658-3435 **Scheduling:** 810-653-4156

Job Site Address _____
Lot/Parcel# _____

Permit To: <input type="checkbox"/> New <input type="checkbox"/> Addition <input type="checkbox"/> Alter/Remodel <input type="checkbox"/> Code Compliance
<input type="checkbox"/> Demo <input type="checkbox"/> Other (Describe): _____

Permit To: <input type="checkbox"/> Residential Built Home <input type="checkbox"/> Pre-Manufactured Home
<input type="checkbox"/> Commercial/Industrial <input type="checkbox"/> Apartments
<input type="checkbox"/> Other _____

<b>Foundation Type</b> <input type="checkbox"/> Basement Block/Foam <input type="checkbox"/> Basement Poured <input type="checkbox"/> Basement Wood/Steel <input type="checkbox"/> Reinforced Mat <input type="checkbox"/> 42" Footings (Trench/Spread) <input type="checkbox"/> 42" Footings (Pole) <input type="checkbox"/> Crawl Space <input type="checkbox"/> Piers <input type="checkbox"/> Existing	<b>Construction Information</b> Commercial Sq Ft _____ Deck Sq Ft _____ Covered <input type="checkbox"/> Enclosed <input type="checkbox"/> Building Height _____ 1 <sup>st</sup> floor _____ 2nd Floor _____ Garage Sq Ft _____ Finished Basement _____  Estimated Construction Value _____
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**CONTINUE APPLICATION ON NEXT PAGE**

**BOX BELOW FOR OFFICE USE ONLY**

Building Inspector Approval _____ Date _____	Remarks: _____ _____ _____ _____ _____
1 <sup>st</sup> Floor _____ 2 <sup>nd</sup> Floor _____ Finished Basement _____ Attached Building _____ Detached Building _____ Porch: Open _____ Covered _____ Enclosed _____	
Plan Review Fee _____	

## PLOT PLAN TO BE COMPLETED BY ALL APPLICANTS

Please submit Approved Septic Site Plan From Health Department: Include the Following:

1. Location & dimensions of all property lines regardless of acreage, include North Point.
2. Location of public streets, highways, private drives, driveways, easements
3. Location, dimensions, and square footage of all existing and proposed buildings or other permanent structures; ie. pools, decks, etc.
4. Distances from all property lines to the proposed building or structure.
5. Location of all underground utilities, well, septic, storm or sanitary sewer, etc.
6. Location of any natural features ie. ponds, rivers, streams, drains.

Property Owner Name \_\_\_\_\_ Phone ( ) \_\_\_\_\_

Current Address \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Owners Drivers License# \_\_\_\_\_ or Date of Birth \_\_\_\_\_

**Property Owner Affidavit:** I hereby certify the work described on this permit application shall be installed in accordance with the State Code and shall not be enclosed, covered up, or put into operation until it has been inspected and approved by the inspector. I will cooperate with the inspector and assume the responsibility to arrange for the necessary inspections.

Section 23a of the State Construction Code Act of 1972, Act No. 230 of the Public Acts of 1972, being Section 125.1523a of the Michigan Compiled Laws, prohibits a person from conspiring to circumvent the licensing requirements of the state relating to persons who are to perform work on a residential building or a residential structure. Violators of Section 23a are subject to civil fines.

Property Owner's Signature \_\_\_\_\_ Date \_\_\_\_\_

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Contractor Name on License \_\_\_\_\_ Phone( ) \_\_\_\_\_

Contractor License Number \_\_\_\_\_ Expiration Date \_\_\_\_\_

Current Address \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Federal ID Number (or reason for exemption) \_\_\_\_\_

Workman's Comp. Carrier (or reason for exemption) \_\_\_\_\_

MESC Number (or reason for exemption) \_\_\_\_\_

**Contractor Affidavit:** I hereby certify that the proposed work is authorized by the owner to make this application as his authorized agent, and we agree to conform to all applicable laws of the State of MI and the local jurisdiction. All information on this application is accurate to the best of my knowledge.

Section 23a of the State Construction Code Act of 1972, Act NO. 230 of the Public Acts of 1972, being Section 125.1523a of the Michigan Compiled Laws, prohibits a person from conspiring to circumvent the licensing requirements of the state relating to persons who are to perform work on a residential building or a residential structure. Violators of Section 23a are subject to civil fines.

Contractor's Signature \_\_\_\_\_ Date \_\_\_\_\_

Print Name \_\_\_\_\_ Date \_\_\_\_\_

Architect or Engineer Name \_\_\_\_\_ Phone( ) \_\_\_\_\_

Address \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Signature \_\_\_\_\_ Date \_\_\_\_\_

June 14, 2005

Re: Street trees on Site Plans within developments

Dear Developers/Builder/Property Owner:

All developments within Davison Township are required by the Zoning Ordinance to have street trees. Please refer to the landscaping page of the site plan for the development in which you are building for specifications. If you are the developer you need to be informing your purchasers of this requirement. If you are the builder/property owner you need to be installing them.

This ordinance will be enforced upon your request for an Occupancy Permit. If conditions are not favorable for planting at the time of final inspection the value of the tree will be requested to be placed in escrow with the Township.

If you have any questions please contact the Building Department.

Sincerely,  
Davison Township  
Building/Planning Department



# DAVISON TOWNSHIP

1280 NORTH IRISH ROAD  
DAVISON, MICHIGAN 48423-2213  
TELEPHONE (810) 653-4156  
FAX (810) 653-2770  
[www.davison township-mi.org](http://www.davison township-mi.org)



KAREN M. MILLER, Clerk  
TIMOTHY W. ELKINS, Trustee

KURT D. SOPER, Supervisor

PATRICK R. MILLER, Treasurer  
MATTHEW D. KARR, Trustee

February 22, 2005

To Whom It May Concern:

As of March 1, 2005 Davison Township will be requiring a \$500 cash bond be posted for each sewer permit issued.

This bond must be posted at the same time the building permit is signed and paid for.

Bond money posted is to insure that ground water is not drained into the Township sewer system. At the time of installation the sewer lead will be sealed and only a Davison Township inspector shall be allowed to remove the seal. If the seal is broken, the bond shall be forfeited. Should you have any additional questions please contact this office. This bond may be posted by the builder or the homeowner.

Sincerely,

*Randy V. Stewart*  
Building/Planning Administrator

RVS:lp

October 22, 1999

## NOTICE AMENDED SURVEY REQUIREMENT

Any wall or attachments thereto are to be shown in relation to Lot Lines after the footings are poured.

This survey is to be done by a STATE REGISTERED SURVEYOR and dimensions are to be shown exactly WITHOUT plus or minus estimates.

The survey *MUST* be received by the building department *PRIOR* to scheduling the backfill inspection. *The backfill inspection will not be scheduled until a copy of the survey is in the Building Department.*

NOTE: Surveys to the outside dimensions of the footings will be acceptable except in situation where side set backs are within 5 feet of the required setbacks. In these instances surveys must be given to show dimensions to foundation walls without plus or minus dimensions.

This may eliminate the need for a separate mortgage survey and will assure that buildings are where they are supposed to be.

The Building Inspector will still do the footing inspection before footings are poured.

PLEASE CALL DAVISON TOWNSHIP BUILDING DEPT IF YOU HAVE ANY QUESTIONS, REGARDING THIS REQUIREMENT. BUILDING DEPT. (810)653-4156.

BACKLET.DOC

## DAVISON TOWNSHIP BUILDING BLUE PRINT REQUIREMENTS

- 1\_\_\_\_ Safety glazing required if less than 60" above drain
- 2\_\_\_\_ Safety glazing required if vertical edge is with 24" arc of door
- 3\_\_\_\_ Safety glazing required if pane is 9 square feet or greater, bottom edge is 18" or less above finished floor and within 36" of walking area
- 4\_\_\_\_ Minimum width of a hallway or exit access is 36" (3 feet)
- 5\_\_\_\_ Tread and risers, maximum riser height 8 1/4", minimum tread run 9", stair cross section
- 6\_\_\_\_ headroom of minimum 6'8" required in all parts of stairway
- 7\_\_\_\_ Guardrails required when floor 30" or more above floor or grade, guardrails not to be less than 36" in height
- 8\_\_\_\_ Anchor system – 1/2" bolts 1' from corners, 6' on center, anchor straps to installed per manufacturer's Specifications
- 9\_\_\_\_ Perimeter tile – Sock or membrane covered tile with 6" pea rock and 2" under tile
- 10\_\_\_\_ 6 mil vapor barrier required under basement slab vapor barrier between masonry and wood
- 11\_\_\_\_ Show attic ventilation; ridge vent or can vent
- 12\_\_\_\_ Attic Access – Provide not less than 22" x 30" to all accessible areas garage and house
- 13\_\_\_\_ Ice Shield – Required from eaves to line 24" inside exterior wall line, also, 15# felt Under layment required on roof
- 14\_\_\_\_ Door sizes interior and exterior
- 15\_\_\_\_ Window sizes and type, casement, slider, double hung, cross sections of wall, floor, stairs u-values of all windows and doors
- 16\_\_\_\_ Footing size
- 17\_\_\_\_ Wall size
- 18\_\_\_\_ All wood headers sizes over garage door and point loads
- 19\_\_\_\_ All steel must be sized by the steel company
- 20\_\_\_\_ Brick flashing details
- 21\_\_\_\_ House wrap detail
- 22\_\_\_\_ Show all insulation R-values
- 23\_\_\_\_ Egress window in basement
- 24\_\_\_\_ Foundation insulation

## Land Stabilization

Before a Certificate of Occupancy can be released the land must be stabilized with 97% coverage and 1" of growth.

If conditions do not permit this, a \$500 bond must be posted to Davison Township, by the new homeowners, a time limit will be set according to the time of year and weather conditions.

Once growth and coverage are established, a final inspection will be done and the bond will be released upon approval.

Builders are responsible for the stabilizing and posting of bonds for all spec homes.

This is done in coordination with Genesee County in order to enforce the State of Michigan Soil Erosion Act.

Davison Township Building Department  
May 2, 2003

- (1) Directory signs shall not exceed a height of five (5) feet and a width of four (4) feet.
  - (2) The directory sign shall consist of individual sign panels, each of which is no greater than eight (8) inches in height and forty (40) inches in width.
  - (3) The design of directory signs shall be in accordance with Township specifications for such signs, as may be adopted by resolution of the Township Board.
  - (4) Directory signs shall not count toward the total number of signs permitted per business or maximum sign surface area permitted per business as specified in Section 1723.6. (Ordinance No. 80-3)
- c. Nonaccessory signs in the Industrial Districts shall be regulated as follows:
- (1) They shall be located a minimum of one thousand (1,000) feet from adjacent residentially zoned property;
  - (2) They shall be located a minimum of one thousand (1,000) feet from other freestanding signs or billboards on the same side of the right-of-way;
  - (3) They shall have the same setbacks as other principal structures in the zone in which they are situated, except that they shall be located no closer than two hundred (200) feet from any abutting public right-of-way;
  - (4) They shall not exceed three hundred (300) square feet in area;
  - (5) They shall not exceed forty (40) feet in height; and
  - (6) They shall be freestanding ground signs. No sign shall project over the roof of any building, nor have any (1) sign above another. (Ordinance No. 80-3)
12. Sign Permits
- a. Prior to the erection or structural alteration of a sign, a building permit shall be secured from the Building Department.
  - b. Application for initial sign permits shall be made upon forms provided by the Building Department and shall contain or have attached thereto the following information:
    - (1) Name, address, and telephone number of the applicant.
    - (2) Location of building, structure, or lot to which or upon which the sign or other advertising structure is to be attached or erected.
    - (3) Position of the sign or other advertising structure in relation to nearby buildings or structures.

- (4) Blueprints or ink drawings, in a number specified by the Building Department, of the plans and specifications and method of construction and attachment to the building or in the ground.
    - (5) Name of person, firm, corporation or association erecting the structure.
    - (6) Written consent of the owner of the building, structure, or land to which or on which the structure is to be erected.
    - (7) Any electrical permit required and issued for said sign. Application requesting the electrical permit for the proposed sign must accompany the sign application.
    - (8) Such information as the Building Department shall require to show full compliance with the Township Ordinance.
  - c. Every applicant, before being granted a permit hereunder, shall pay to the Building Department a permit fee for each sign or other advertising structure regulated by this chapter as may be established, by resolution, by the Township Board of Trustees.
  - d. It shall be the duty of the Building Department, upon the filing of an application for an erection permit, to examine such plans and specifications and other data and the premises upon which it is proposed to erect the sign or other advertising structure, and if it shall appear that the proposed structure is in compliance with all the requirements of this chapter and all other laws and ordinances of the Township, it shall then issue the erection permit. If the construction authorized under an erection permit has not been initiated within ninety (90) days after date of issuance, the permit shall become null and void.
13. Residential Address Signs (Ordinance No. 80-10)
- a. Prior to the occupancy of any residential dwelling unit, there shall be posted a residential address sign.
  - b. The residential address sign shall consist of numbers which are clearly visible from the adjoining street or road. In no instance shall the numbers be less than five (5) inches in height.
  - c. The color of the numbers shall sufficiently contrast with the color of the building or plate to which they are attached to make them readily distinguishable by passersby.
  - d. Only block numbers shall be used.
14. Maintenance of Signs
- a. All signs and sign components thereof, including without limitation supports braces, and anchors, shall be kept in a state of good repair. With respect to freestanding signs, components (supporting structures, backs, etc.) not bearing a message shall be constructed of materials that blend with the natural environment or shall be painted a neutral color to blend with the natural environment.

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

Builder's Name: ALTERNATIVE HOUSE ROOF = R 30 WALL = R 13, R 11 BASEMENT.  
 Project Address: GLASS @ 14% U = .35, 94% AFUE FURNACE.  
 City/Township/County:

PROPOSED ALTERNATIVE HOUSE		STANDARD DESIGN HOUSE	
ROOF/CEILING (INC. SKYLIGHTS)	SUBTOTALS	ROOF/CEILING (INC. SKYLIGHTS)	SUBTOTALS
$A_1$ 1350 / $R_1$ 30 = $A_1/R_1$ _____ $A_2$ _____ / $R_2$ _____ = $A_2/R_2$ _____ $A_3$ _____ / $R_3$ _____ = $A_3/R_3$ _____  $A_1/R_1 + A_2/R_2 + A_3/R_3$ = <u>45</u> $R$ = _____ Total Roof/Ceiling Area <u>Line 1</u>		1350 _____ x 0.0204 = <u>27.54</u> Total Roof/Ceiling Area (all zones) <u>Line A</u>	
GROSS WALL		GROSS WALL	
Opaque Wall (Does not include band joist, windows, doors, etc.) $A_1$ 2064 / $R_1$ 13 = $A_1/R_1$ _____ $A_2$ _____ / $R_2$ _____ = $A_2/R_2$ _____ $A_1/R_1 + A_2/R_2 =$ <u>158.8</u> <u>Line 2</u>		[RENDERED AS A SHADY RECTANGLE IN THE ORIGINAL IMAGE]	[RENDERED AS A SHADY RECTANGLE IN THE ORIGINAL IMAGE]
Band Joist (INCLUDED IN WALL) $A$ _____ / $R$ _____ = $A/R$ _____ = _____ <u>Line 3</u>			
Fenestration and Doors, Windows @ 14% $A_1$ 336 / $R_1$ .35 = $A_1/R_1$ _____ $A_2$ _____ / $R_2$ _____ = $A_2/R_2$ _____ $A_3$ _____ / $R_3$ _____ = $A_3/R_3$ _____ $A_1/R_1 + A_2/R_2 + A_3/R_3$ = <u>117.6</u> $R_3 =$ _____ <u>Line 4</u>			
Doors (INCLUDED IN WINDOW AREA) $A_1$ _____ / $R_1$ _____ = $A_1/R_1$ _____ $A_2$ _____ / $R_2$ _____ = $A_2/R_2$ _____ $A_1/R_1 + A_2/R_2 =$ _____ <u>Line 5</u>			
Other (NONE) $A$ _____ / $R$ _____ = $A/R$ _____ = _____ <u>Line 6</u>			
Total Gross Wall Area <u>Line 6</u>			
GROSS WALL SUBTOTAL A/R (Lines: 2+3+4+5+6) <u>276.4</u> <u>Line 7</u>			

FOUNDATION/FLOOR	SUBTOTALS	FOUNDATION/FLOOR	SUBTOTALS
Floors Over Unconditioned Spaces A <u>0</u> /R _____ = A/R _____ =	<u>0</u> Line 8	Floors Over Unconditioned Spaces <u>0</u> x 0.0478 = Total Floor Area (all zones)	<u>0</u> Line C
Slab on Grade Floors (Area = Perimeter x 2) A <u>0</u> /R _____ = A/R _____ =	<u>0</u> Line 9	Slab on Grade (Unheated) <u>0</u> Z <sub>1</sub> 0.0809 x Z <sub>2</sub> 0.0789 = Total Slab Edge Area Z <sub>3</sub> 0.050	<u>0</u> Line D
Slab on Grade (Heated) <u>0</u> Z <sub>1</sub> 0.0789 x Z <sub>2</sub> 0.0867 = Total Slab Edge Area Z <sub>3</sub> 0.050	<u>0</u> Line E	Crawl Space <u>0</u> x 0.050 = Total Crawl Space Wall Area (all zones)	<u>0</u> Line F
Crawl Space Walls (Area: Top foundation wall to average finished grade) A <u>0</u> /R _____ = A/R _____ =	<u>0</u> Line 10	Basement Walls <u>1248</u> Z <sub>1</sub> 0.090 x Z <sub>2</sub> 0.090 = Total Gross Basement Wall Area Z <sub>3</sub> 0.055	<u>112.3</u> Line G
Basement Walls (Area: Top foundation wall to average finished grade) A <sub>1</sub> <u>1248</u> /R <sub>1</sub> <u>11</u> = A <sub>1</sub> /R <sub>1</sub> <u>113.45</u> 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> =	<u>113.45</u> Line 11	Basement Windows A _____ /R _____ = A/R _____ =	<u>0</u> Line 12
Basement Windows	<u>0</u> Line 12	Total Gross Basement Wall Area	
FOUNDATION/FLOOR SUBTOTAL A/R (Lines: 8+9+10+11+12)	<u>113.45</u> Line 13	FOUNDATION/FLOOR SUBTOTAL A/R (Lines: C+D+E+F+G)	<u>112.3</u> Line H
PROPOSED ALTERNATIVE HOUSE SUB-TOTAL A/R (Lines: 1+7+13)	<u>434.85</u> Line 14	STANDARD DESIGN HOUSE SUB-TOTAL A/R (Lines: A+B+H)	<u>363</u> 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: <u>94</u> % Line 14: <u>434.85</u> Adjusted A/R = AFUE: 0. <u>94</u>	<u>462.6</u> Line 15	HEATING EQUIPMENT EFFICIENCY (Oil or Gas Fired) AFUE: 78% Line I: <u>363</u> = Adjusted A/R = AFUE: 0.78	<u>465.4</u> Line J
AIR LEAKAGE RATE (If the same as Standard House, go to line 17) <u>27,500</u> ACH x <u>.55</u> ft <sup>3</sup> x 0.018 = Air Changes per Hour Volume of House	<u>272.25</u> Line 16	AIR LEAKAGE RATE 0.55 ACH x <u>27,500</u> ft <sup>3</sup> x 0.018 = Volume of House	<u>272.2</u> Line K
PROPOSED ALTERNATIVE HOUSE TOTAL (Lines: 15+16) Equal to or less than line I to pass	<u>734.85</u> Line 17	STANDARD DESIGN LIMIT TOTAL (Lines: J+K)	<u>737.6</u> Line L

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

734.85 < 737.6  
COMPLIES

**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
$A_1 \quad /R_1 = A_1 /R_1$ $A_2 \quad /R_2 = A_2 /R_2$ $A_3 \quad /R_3 = A_3 /R_3$ $A_1 /R_1 + A_2 /R_2 + A_3 /R_3 =$ $/R =$ Total Roof/Ceiling Area	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.) $A_1 \quad /R_1 = A_1 /R_1$ $A_2 \quad /R_2 = A_2 /R_2$ $A_1 /R_1 + A_2 /R_2 =$	Line 2		
Band Joist $A \quad /R = A /R =$	Line 3		
Fenestration and Doors, Windows $A_1 \quad /R_1 = A_1 /R_1$ $A_2 \quad /R_2 = A_2 /R_2$ $A_3 \quad /R_3 = A_3 /R_3$ $A_1 /R_1 + A_2 /R_2 + A_3 /R_3 =$	Line 4		
Doors $A_1 \quad /R_1 = A_1 /R_1$ $A_2 \quad /R_2 = A_2 /R_2$ $A_1 /R_1 + A_2 /R_2 =$	Line 5		
Other $A \quad /R = A /R =$			
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 <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 = Total Crawl Space Wall Area (all zones)	Line F
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
Basement Windows A _____ /R _____ = A/R _____ =	Line 12	Total Gross Basement Wall Area Z <sub>3</sub> 0.055	
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.