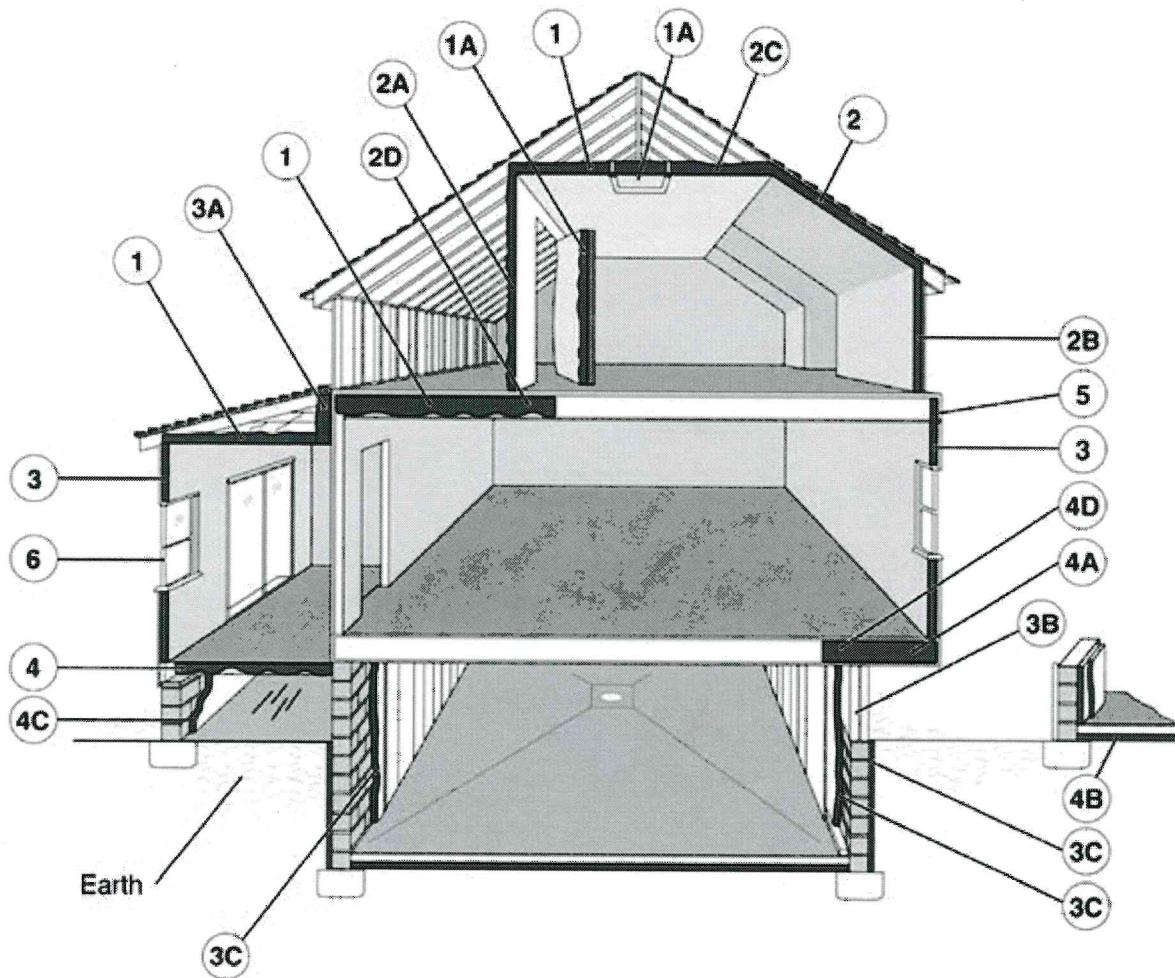


# **Methods of Compliance with the 2015 MRC**

## **Montcalm County – Zone 5A**

- **Prescriptive method:** Follow the chart and sections of the 2015 MRC for R Values of insulation on foundations, floors, walls, ceilings and the U values for doors, windows, skylights, etc.
  - Basements – Minimum R10 continuous insulation or R13 framed cavity insulation around the inside of the foundation.
  - Crawlspaces – Minimum R15 using continuous insulation, or R19 framed cavity insulation around the perimeter of the foundation.
  - Floor slab – Minimum R10 2' depth
  - Floors – Minimum R30 over any unconditioned spaces.
  - Walls – Minimum R20 framed cavity insulation or a combination of minimum R13 framed cavity insulation + minimum R5 foam sheathing.
  - Ceilings – Minimum R49 (R38 allowed if full R38 extends out over wall exterior wall plates. Promotes the use of energy heal trusses).
  - Door and window U Value equal to or less than .32
  - Skylight U Value equal to or less than .55
  - Replacement windows, doors, skylights – same as for new construction.
  - Building thermal envelope sealed – joints caulked, doors and windows sealed and/or flashed, openings around doors, windows, skylights, etc, utility penetrations, walls and ceilings separating garages from conditioned spaces, behind tubs and showers on exterior walls, attic access openings, rim joist junctions, other possible sources of air infiltration.
  - Air sealing verification by third party blower door test.
  - Wood burning fireplaces to have tight fitting doors and outdoor combustion air.
  - Recessed lighting to be of an approved type.
  - Programmable thermostat for forced air heating systems
  - Duct insulation in unconditioned spaces, attics – R8, all other locations R6.
  - Mechanical piping systems – Minimum R3 if carrying fluids above 105 degrees F. or below 55 degrees F.
  - Circulating hot water systems – Minimum R3 insulation
  - Mechanical ventilation intakes and exhausts to have automatic or gravity dampers that close when system is not in operation.
  - Minimum 75% of lamps installed in permanently installed fixtures to be high efficacy lamps.
- **Simulated Performance Alternative (Performance)**
  - Building shall be provided with all of the prescriptive requirements considered to be mandatory in accordance with Section 401.2, all supply and return air ducts not completely inside the building thermal envelope are insulated to a minimum R6, and the proposed design to be shown to have an annual energy cost that is less than or equal to the annual energy cost of the standard design for the same building.
  - Show compliance through a software based compliance program such as ResCheck (free download from Dept. Of Energy website).
  - Energy Star rated certificate of compliance.
  - HERS rated certificate of compliance.
- **Commercial Buildings** – Required to meet ASHRAE/IESNA Standard 90.1 2007

*Based on the requirements of the 2015 Michigan Residential Code – effective February 8, 2016.*



- 1 R-38
- 1A Weather Stripped and insulated to a level equivalent to the insulation in the surrounding surfaces.
- 2 R-38 (Sky Light U-Factor .55)
- 2A R-20 or R-13 + 5
- 2B R-20 or R-13 + 5
- 2C R-38
- 2D R-38
- 3 R-20 or R-13 + 5
- 3A R-38
- 3B Window U-Factor .32
- 3C R-13
- 3D R-10
- 4 R-30 or Fill Cavity
- 4A R-30 or Fill Cavity
- 4B Slab on grade R-10 Floor, Heated add R-5 to perimeter
- 4C R-15
- 4D R-30 or Fill Cavity
- 5 R-20 or R-13 + 5
- 6 Windows U-Factor .32

\*Insulation under hydronic piping--R-5

\*Plans shall also state type of insulation being used  
Cellulose, Fiberglass, Type of Foam, Etc.

**INSULATION CERTIFICATE**  
**BATT/ SPRAY APPLIED / LOOSE FILL INSULATION**

***In accordance with Section N1101.12.1 of the 2015 Michigan Energy Code:***

N1101.12.1 (R303.1.1) Building thermal envelope insulation. An R-value identification mark shall be applied by the manufacturer to each piece of building thermal envelope insulation 12 inches (305 mm) or greater in width. Alternately, the insulation installers shall provide a certification listing the type, manufacturer and R-value of insulation installed in each element of the building thermal envelope. For blown or sprayed insulation (fiberglass and cellulose), the initial installed thickness, settled thickness, settled R-value, installed density, coverage area and number of bags installed shall be listed on the certification. For sprayed polyurethane foam (SPF) insulation, the installed thickness of the areas covered and R-value of installed thickness shall be listed on the certification. The insulation installer shall sign, date and post the certification in a conspicuous location on the job site.

**Complete all information below that is applicable to the project, post a copy on site  
and provide a copy to your local Building Inspection department for their records.**

***Job Site Information:***

Owner Name: \_\_\_\_\_ Building Permit Number: \_\_\_\_\_

Project Address: \_\_\_\_\_ City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

***Insulation Contractor Information:***

Insulation Contractor: \_\_\_\_\_ Date: \_\_\_\_\_

Phone: \_\_\_\_\_ Contractor Signature: \_\_\_\_\_

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

<b>INSULATION INFORMATION</b>	<b>ROOF/CEILING</b>	<b>EXTERIOR WALLS</b>	<b>CRAWLSPACE/ BASEMENT</b>
A) Type of insulation installed			
B) Insulation manufacturer			
C) R Value of insulation installed			
D) Initial installed thickness			
E) Settled thickness/provided by manufacturer			
F) Settled R-value			
G) Installed density			
H) Square footage of insulation coverage			
I) Number of bags of insulation installed			