

BENZIE COUNTY BUILDING SAFETY and CODE ENFORCEMENT DEPARTMENT

448 Court Place,
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Beulah, Michigan 49617
Fax. 231-882-0033

Building Owner: _____ Builder Name: _____
 Site Address _____ Township: _____
 _____ Permit # _____
 General Building Description _____ Parcel # _____
 _____ Phone _____ Date _____

MUEC PRESCRIPTIVE COMPLIANCE APPROACH WORK SHEET 2009 Code (ZONE 6A)

| Rule | MINIMUM BUILDING ENVELOPE INSULATION CRITERIA | Cavity | Cont | YES | NO |
|----------|---|---------------|-------------------|-----|----|
| 402.1.1 | WOOD FRAME WALL INSULATION | R-20 | 13+5 ^e | | |
| 402.2.4 | MASS WALLS ^f | R-19 | R-15 | | |
| 402.2.1 | ROOF / CEILING INSULATION Minimum over wall R-30 limited to 20% or 500 sq ft of assembly CONTINUOUS WITH ENERGY SEAL | R-49 | | | |
| | SKYLIGHTS EQUAL U - .60 | | R-38 | | |
| 402.3.1 | PERCENT OF FENESTRATION (WINDOWS) FENESTRATION R-VALUE - 2.85 U-. 35 15% OR LESS OF GROSS WALL AREA* | | | | |
| 402.3.4 | OPAQUE DOORS EXEMPTION – one door up to 24 sq ft OTHERWISE R-2.85 U - . 35 | | | | |
| | FOUNDATION/BASEMENT INSULATION | | | | |
| T402.1.1 | FLOORS OVER UNCONDITIONED SPACES | R-30 | | | |
| 402.2.8 | SLAB – ON – GRADE FLOORS ^c | R-10, 4 ft. | | | |
| 402.2.9 | CRAWL SPACE WALLS (NO VENTING & A CONTINUOUS VAPOR BARRIER) | R-13 | R-10 | | |
| T402.1.1 | UNCONDITIONED CRAWL SPACE (INSULATED FLOOR ABOVE) | R-30 R-15 | | | |
| 402.2.7 | BASEMENT WALLS; CONTINUOUS INSULATION | R-15 exterior | | | |
| 402.2.7 | BASEMENT WALLS; CAVITY INSULATION | R-19 | | | |

Home owner/Builder Signature _____ License Number _____

- a. The fenestration U-factor column excludes skylights.
- b. The first R-value applies to continuous insulation, the second to framing cavity insulation; either insulation meets the requirement.
- c. R-5 shall be added to the required slab edge R-values for heated slabs. Insulation depth shall be the depth of the footing or 2 feet, whichever is less, in zones 1-3 for heated slabs.
- d. Or insulation sufficient to fill the framing cavity, R-19 minimum.
- e. "13+5" means R-13 cavity insulation plus R-5 insulated sheathing. If structural sheathing covers 25% or less of the exterior, R-5 sheathing is not required where structural sheathing is used. If structural sheathing covers more than 25% of exterior, structural sheathing shall be supplemented with insulated sheathing of at least R-2.
- f. The second R-value applies when more than half the insulation is on the interior.

**TABLE 402.1.1
INSULATION AND FENESTRATION REQUIREMENTS BY COMPONENT**

| CLIMATE ZONE | FENESTRATION U-FACTOR | SKYLIGHT ^a U-FACTOR | CEILING R-VALUE | WOOD FRAME WALL R-VALUE | MASS WALL R-VALUE ^f | FLOOR R-VALUE | BASEMENT ^b WALL R-VALUE | SLAB ^c R-VALUE & DEPTH | CRAWL SPACE ^c WALL R-VALUE |
|--------------|-----------------------|--------------------------------|-----------------|-------------------------|--------------------------------|-----------------|------------------------------------|-----------------------------------|---------------------------------------|
| 6A | 0.35 | 0.60 | 49 | 20 or 13+5 ^e | 15/19 | 30 ^d | 15/19 | 10, 4 ft | 10/13 |

Cont = Continuous
T = Table