



CITY OF BRENTWOOD PLANNING AND CODES DEPARTMENT

Residential Energy Conservation Code Declaration

*****APPLICATION MUST BE 100% COMPLETE**

Subdivision Name: _____ Lot Number: _____

Address: _____

Type of Permit: (*please check one*):

☐ New Single Family

☐ Remodel

☐ Addition

☐ Basement Build-Out

Contractor's Name: _____

Contractor's Address: _____

City/State/Zip Code: _____

Phone Number: (____) _____ Phone Number: (____) _____

Email Address _____

Tennessee State Contractor's License Number _____

DECLARATION OF ENERGY CODE METHOD

If the structure fails to meet the minimum specified "R" values or exceeds the permitted maximum percentage of openings and skylights, or the maximum glazing U-Factor using the prescriptive method, then you should consult your designer, insulation sub-contractor and your door & window supplier to assist you with compliance by methods 1 or 2 (provide documentation of compliance).

CHECK THE APPROPRIATE BOX BELOW TO INDICATE SELECTED METHOD

BUILDING THERMAL ENVELOPE (PRESCRIPTIVE)

GENERAL

INSULATION AND FENESTRATION CRITERIA. THE BUILDING THERMAL ENVELOPE SHALL MEET THE REQUIREMENTS OF TABLE BASED ON THE CLIMATE ZONE SPECIFIED IN CHAPTER 3. (CLIMATE ZONE 4A)

METHOD 1 ☐

SIMULATED PERFORMANCE ALTERNATIVE (PERFORMANCE)

SCOPE.

THIS SECTION ESTABLISHES CRITERIA FOR COMPLIANCE USING SIMULATED ENERGY PERFORMANCE ANALYSIS. SUCH ANALYSIS SHALL INCLUDE HEATING, COOLING, AND SERVICE WATER HEATER ENERGY ONLY.

METHOD 2 ☐

AFTER READING THE CONTENT OF THE SECOND PAGE, RETURN TO THIS PAGE AND SIGN AND DATE BELOW, CERTIFYING COMPLIANCE TO THE REQUIREMENTS STATED BELOW:

COMPLIANCE CERTIFICATION

This structure meets or exceeds the current Energy Conservation Code adopted by the City of Brentwood.

CONTRACTOR'S NAME

DATE

FACTORS REQUIRED BY THE CURRENTLY ADOPTED INTERNATIONAL ENERGY CONSERVATION CODE

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

CLIMATE ZONE	FENESTRATION U-FACTOR ^b	SKYLIGHT ^b U-FACTOR	GLAZED FENESTRATION SHGC ^{b,*}	CEILING R-VALUE	WOOD FRAME WALL R-VALUE	MASS WALL R-VALUE ⁱ	FLOOR R-VALUE	BASEMENT ^c WALL R-VALUE	SLAB ^d R-VALUE & DEPTH	CRAWL SPACE ^e WALL R-VALUE
1	1.2	0.75	0.30	30	13	3/4	13	0	0	0
2	0.65 ^j	0.75	0.30	30	13	4/6	13	0	0	0
3	0.50 ^j	0.65	0.30	30	13	5/8	19	5/13 ^f	0	5/13
4 except Marine	0.35	0.60	NR	38	13	5/10	19	10/13	10, 2 ft	10/13
5 and Marine 4	0.35	0.60	NR	38	20 or 13+5 ^h	13/17	30 ^g	10/13	10, 2 ft	10/13
6	0.35	0.60	NR	49	20 or 13+5 ^h	15/19	30 ^g	15/19	10, 4 ft	10/13
7 and 8	0.35	0.60	NR	49	21	19/21	38 ^g	15/19	10, 4 ft	10/13

For SI: 1 foot = 304.8 mm.

- a. R-values are minimums. U-factors and SHGC are maximums. R-19 batts compressed into a nominal 2 × 6 framing cavity such that the R-value is reduced by R-1 or more shall be marked with the compressed batt R-value in addition to the full thickness R-value.
- b. The fenestration U-factor column excludes skylights. The SHGC column applies to all glazed fenestration.
- c. "15/19" means R-15 continuous insulated sheathing on the interior or exterior of the home or R-19 cavity insulation at the interior of the basement wall. "15/19" shall be permitted to be met with R-13 cavity insulation on the interior of the basement wall plus R-5 continuous insulated sheathing on the interior or exterior of the home. "10/13" means R-10 continuous insulated sheathing on the interior or exterior of the home or R-13 cavity insulation at the interior of the basement wall.
- d. 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 through 3 for heated slabs.
- e. There are no SHGC requirements in the Marine Zone.
- f. Basement wall insulation is not required in warm-humid locations as defined by Figure 301.1 and Table 301.1.
- g. Or insulation sufficient to fill the framing cavity, R-19 minimum.
- h. "13+5" means R-13 cavity insulation plus R-5 insulated sheathing. If structural sheathing covers 25 percent or less of the exterior, insulating sheathing is not required where structural sheathing is used. If structural sheathing covers more than 25 percent of exterior, structural sheathing shall be supplemented with insulated sheathing of at least R-2.
- i. The second R-value applies when more than half the insulation is on the interior of the mass wall.
- j. For impact rated fenestration complying with Section R301.2.1.2 of the *International Residential Code* or Section 1608.1.2 of the *International Building Code*, the maximum U-factor shall be 0.75 in Zone 2 and 0.65 in Zone 3.

(All R-values shall be printed on the actual insulation)

REQUIREMENTS PRIOR TO ISSUANCE OF A CERTIFICATE OF OCCUPANCY

INTERNATIONAL ENERGY CONSERVATION CODE (IECC), 2018 (AS AMENDED) - SECTION 401.3:

"A permanent certificate shall be posted on or in the electrical distribution panel. The certificate shall not cover or obstruct the visibility of the circuit directory label, service disconnect label or other required labels.

The certificate shall be completed by the builder or registered design professional. The certificate shall list the predominant R-values of insulation installed in or on ceiling/roof, walls, foundation (slab, basement wall, crawlspace wall and/or floor) and ducts outside conditioned spaces; U-factors for fenestration; and the solar heat gain coefficient (SHGC) of fenestration.

Where there is more than one value for each component, the certificate shall list the value covering the largest area. The certificate shall list the types and efficiencies of heating, cooling and service water heating equipment.

Where a gas-fired unvented room heater, electric furnace and/or baseboard electric heater is installed in the residence, the certificate shall list "gas-fired unvented room heater," "electric furnace" or "baseboard electric heater," as appropriate. An efficiency shall not be listed for gas-fired unvented room heaters, electric furnaces or electric base board heaters."

SUBMIT