FAUQUIER COUNTY

VIRGINIA

ENERGY COMPLIANCE

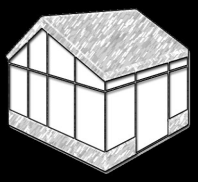
This information is the most common for how to obtain the necessary permits for your project and is not representative of all the conditions you may encounter.

NEW HOMES, ADDITIONS, SUNROOMS

Consider the following when complying with the energy conservation requirements of the 2012 Virginia Residential Code.

- A **conditioned space** is an area within a building that is heated or cooled or has a fixed opening to an area that is heated or cooled.
- A **basement wall** is more than 50 percent below grade and encloses a conditioned space.
- Windows, skylights and glass doors are considered **glazing**.
- An **R-value** is a measurement of a material's thermal resistance (the higher, the better).
- A **U-factor** measures the ability of a material (glass) or assembly (window) to transfer heat (the lower the better).
- Use the table on Page 2 to determine your insulation and glazing value requirements or submit your own energy design using RES*Check* (see below).

Have a Sunroom?



To use the sunroom design values on Page 2, all of the following conditions must be met:

- **One-story structure added to an existing home**
- **Glazing area exceeds 40 percent of the exterior walls and roof area.**
- **Sunroom is served by separate and independently-controlled heating.**
- **A closeable door separates the sunroom from the rest of house**

Determining your own R-values and U factors?

If you wish to use R-values and U-factors other than those prescribed on Page 2, you may manually design your house, addition or sunroom using RES*Check* from the U.S. Department of Energy. For more information, go to *energycodes.gov*.

Fauquier County Department of Community Development

Zoning & Development Services

Third Floor-
Court and Office Building
29 Ashby Street, Suite 310
Warrenton, Va. 20186

Zoning & Development Plans:

540-422-8220

Permitting & Building:

540-422-8230

10 Hotel Street, Suite 305
Warrenton, Va. 20186
540-422-8210
Fax: 540-422-8211

Hours of Operation

Monday—Friday:
8 a.m.—4:30 p.m.

Health Department

98 Alexandria Pike
Suite 42
Warrenton, Va. 20186
540-347-6363

Website

Publications, forms and other useful information can be found at

Fauquiercounty.gov/government

A Fauquier County, Virginia Publication

DESIGN VALUES

The table below provides the R-value and U-factor requirements for insulation and glazing, respectively. Higher insulation R-values are permitted provided their dimensions properly fit in the intended cavity without compacting its thickness. Glazing with lower U-factors than required are also permitted.

Element	New Homes, Additions	Sunrooms
U-factor (maximum)		
Windows[1]	0.35	0.45
Doors[1]	0.35	0.45
Skylights[1]	0.55	0.70
R-value (minimum)		
Ceilings	38[2]	19
Walls (wood framed)	15	13
Walls (concrete, CMU)	8/13[3]	8/13[3]
Floors	19	19
Basement Walls	10/13[4]	10/13[4]
Slab-on-grade[5]	10	10
Crawl Space Walls[6]	10/13[2]	10/13[2]

How do I show compliance on the plans?

Clearly indicate on the drawings the required R-values and U-factors from the table to the left or from a RES*Check* computation (see Page 1). Attach the RES*Check* Compliance Certificate to each set of your construction plans when used.

1 Windows, doors and skylights shall have a maximum solar heat gain coefficient (SHGC) of 0.40.

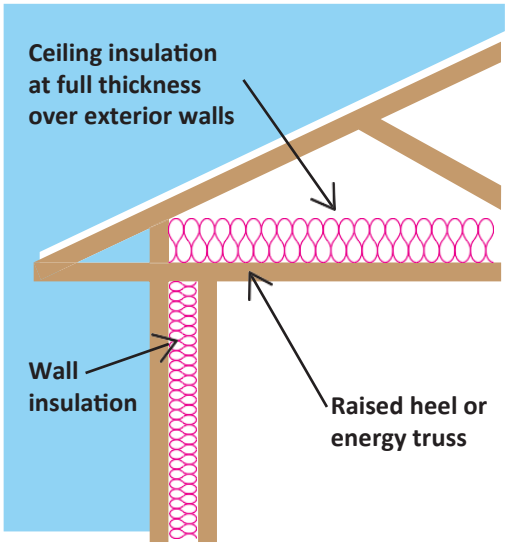
2 R-30 can be substituted for R-38 with a raised heel or energy truss where the full height of the insulation is maintained over the entire ceiling footprint and the exterior wall. See figure right.

3 Use R-8 when insulation is applied to the exterior; use R-13 when insulation is applied on the interior.

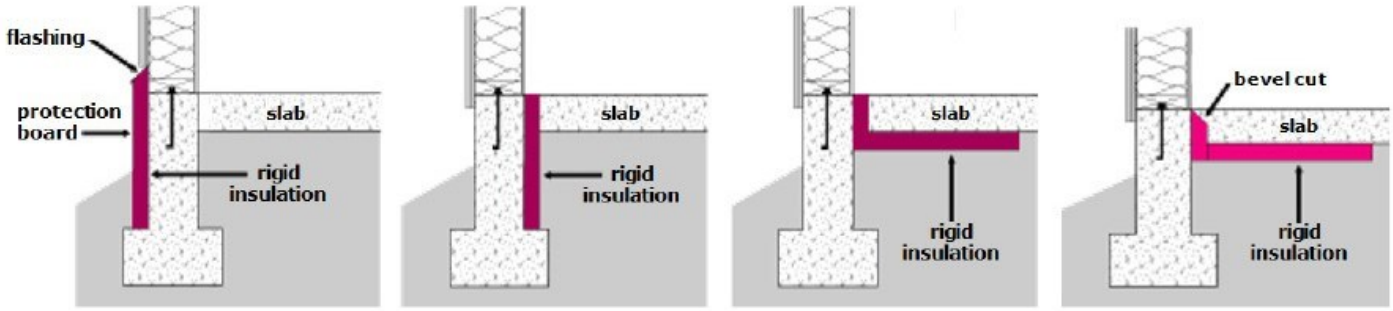
4 Use R-10 when applied continuously against the wall; use R-13 when applied between studs or furring strips.

5 Insulation must extend from the slab edge to a length of 24 inches vertically and/or horizontally; see figure below.

6 Use insulation on crawl space walls in unvented-conditioned crawl spaces with no floor insulation above.



Insulation at Raised Heel Truss



Slab-on-Grade Insulation Requirements

(Insulation must extend from slab edge to a length of 24 inches vertically and/or horizontally.)