



2018 IECC Residential Energy Efficiency Code Requirements Flow Chart

In accordance with Maryland Building Performance Standards and the currently adopted Carroll County Building Code all residential structures must comply with the 2018 International Energy Conservation Code. All of the Mandatory provisions and either the Prescriptive or Performance based approach must be followed.



Building Thermal Envelope Compliance Exception

R101.5.2 Low energy buildings. The following buildings, or portions thereof, separated from the remainder of the building by *building thermal envelope* assemblies complying with this code shall be exempt from the *building thermal envelope* provisions of this code:

1. Those with a peak design rate of energy usage less than 3.4 Btu/h · ft² (10.7 W/m²) or 1.0 watt/ft² (10.7 W/m²) of floor area for space conditioning purposes.
2. Those that do not contain *conditioned space*.



Mandatory Requirements

Section R401.3	Certificate
Section R402.4	Air Leakage
Section R402.5	Maximum fenestration U-factor and SHGC
Section R403.1	HVAC Controls
Section R403.1.2	Heat Pump Supplementary Heat
Section R403.3.2	Duct Sealing
Section R403.3.5	Building Cavities as ducts or plenums
Section R403.4	Mechanical system piping insulation
Section R403.5.1	Circulating hot water systems
Section R403.6	Mechanical ventilation
Section R403.7	Equipment sizing
Section R403.8	Systems serving multiple dwelling units
Section R403.9	Snow melt systems controls
Section R403.10	Pools and inground permanently installed spas
Section R404.1	Lighting Equipment
Section R404.1.1	Fuel Gas Lighting Equipment

and either the Prescriptive or Performance provisions



Prescriptive Option Requirements

Section R402.1	General
Section R402.2	Specific insulation requirements
Section R402.3	Fenestration
Section R403.3.1	Duct insulation
Section R403.5.2	Hot Water Pipe Insulation



Performance Option Requirements

Section R405	Simulated performance alternative
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Additional information regarding the requirements of the 2018 IECC as adopted by Carroll County can be obtained by calling Permits and Inspections at (410) 386-2674. Local amendments and the 2018 I-codes can be referenced at www.ccgovernment.carr.org.



PERMIT# _____

✓ File Copy _____ Field Copy _____

2018 IECC Residential Energy Efficiency Code

All new residential one and two family dwellings and additions to existing one and two family dwellings must comply with the residential provisions of the 2018 IECC. Additions, alterations, renovations or repairs to single family dwellings can comply with the code without requiring the unaltered portion(s) to comply. An addition shall be deemed to comply with the code if the addition alone complies or if the existing building and addition comply with the code as a single building.

In addition to the mandatory provisions of the code, the department must be advised by the applicant of the chosen compliance path by checking the applicable box. Additional detailed information on the mandatory provision and the provisions within each compliance path can be found in the Carroll County Energy Code Compliance Check List. If the Prescriptive UA Alternative path or Performance Path is chosen additional documentation must be attached to demonstrate compliance.

Mandatory Requirements

All provisions must be complied with regardless of the compliance path that is chosen.

☐

Prescriptive Compliance Path
Choose one of the three available options

OR

Performance Option Requirements
Must submit compliance Documentation

☐
☐

Prescriptive R- value

OR

☐

Prescriptive U- value

OR

☐

Prescriptive UA Alternative
Must Submit Compliance Documentation

Table R402.1.2 Insulation and Fenestration Requirements by Component (2018 IECC)										
Climate Zone	Fenestration U-Factor	Skylight U-Factor	Glazed Fenestration SHGC	Ceiling R-value	Wood Frame Wall R-value	Mass Wall R-value	Floor R-value	Basement Wall R-value	Slab R-value & Depth	Crawl Space Wall R-value
4 Except Marine	0.32	0.55	0.4	49	20 or 13+5	8/13	19	10/13	10, 2ft	10/13

Table R402.1.4 Insulation and Fenestration Requirements by Component (2018 IECC)								
Climate Zone	Fenestration U-Factor	Skylight U-Factor	Ceiling U-Factor	Wood Frame Wall U-Factor	Mass Wall U-Factor	Floor U-Factor	Basement Wall U-Factor	Crawl Space Wall U-Factor
4 Except Marine	0.32	0.55	0.026	0.060	0.098	0.047	0.059	0.065

Plan review at time of permit application

In field inspections to verify compliance

Applicant/Project Information

New Single Family Dwelling: ☐ or Addition: ☐
Addition is thermally isolated ☐ from existing construction.

Permit Applicant: _____ Date: _____

(Signature)

(Print Name)

Additional documentation received for Prescriptive UA Alternative Path or Performance Compliance Path Option: ☐

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