

2021 IECC PERSCRIPTIVE COMPLIANCE PATH

- R301.1 Climate zone 4A
- R401.2 Compliance Method:
Mandatory and Prescriptive Provisions
- R402.1.1 Vapor Retarder:
Wall assemblies in the building thermal envelope shall comply with vapor retarder requirements of Section R702.7 of the International Residential Code, 2021 Edition.
- R402.1.3 Attic Insulation: Raised Heel Truss
R-60 R-49
- R402.1.3 Wood Frame Wall:
R-30 or R20 + R5 continuous insulation (CI) or R13 + R10 CI or R20 CI
- R402.1.3 Basement Wall Insulation:
R-13/R-10 Foil faced Continuous uninterrupted Batts Full Height
- R402.1.3 Crawl Space Wall Insulation:
R-13/R-10 Foil faced Continuous uninterrupted Batts Full Height extending from floor above to finish grade level.
- R402.1.3 Floor Insulation over Unconditioned Space:
R-19 batt insulation.
- R402.1.3 Window U-Value/SHGC
.35(U-Value)
.40(SHGC)
- R402.2.9.1 Slab on Grade Floors:
R-10 continuous insulation Extending 4' -0" vertically, or any combination of vertical and horizontal insulation to equal 4'-0".
- R402.2.4 Attic Access:
Attic access scuttle will be weather-stripped and insulated R-60
- R402.4 Air Leakage:
Exterior walls and penetrations will be sealed per this section of the 2021 IECC with caulk, gaskets, weatherstripping or an air barrier of suitable material. Sealing methods between dissimilar materials shall allow sealing for differential expansion and contraction.
- R402.4.1.2 Testing (Thermal Envelope Tightness Test):
Building envelope shall be tested and verified as having an air leakage rate of not exceeding 3 air changes per hour (5 ACH if following alternative path outlined in IECC section R402.4.1.2). Testing shall be conducted in accordance with ASTM E 779 or ASTM E 1827 with (blower door) at a pressure of 0.2 inches w.g. (50 pascals). Testing shall be conducted by an approved third party. A written report of the results of the test shall be signed by the party conducting the test and provided to the building inspector.
- R402.4.2 Fireplaces: New wood burning fireplaces will have tight-fitting flue dampers or doors, and outdoor combustion air. Fireplace doors shall be listed and labeled in accordance with UL 127 (factory-built fireplace) and UL 907 (masonry fireplace).

- R402.4.4 Rooms containing fuel-burning appliances where open combustion air ducts provide combustion air to open combustion fuel burning appliances, the appliances and combustion air shall be located outside the building thermal envelope or enclosed in a room isolated from inside the thermal envelope.
Exceptions: 1. Direct vent appliances with both intake and exhaust pipes installed continuous to the outside. 2. Fireplaces and stoves complying with Section R402.4.2 and Section R1006 of the IRC.
- R402.4.5 **Recessed Lighting**
Recessed luminaires installed in the building thermal envelope shall be sealed to limit air leakage between conditioned and unconditioned spaces. All recessed luminaires shall be IC-rated and labeled as having an air leakage rate not more than 2.0 cfm (0.944 L/s) when tested in accordance with ASTM E 283 at a 1.57 psf (75 Pa) pressure differential. All recessed luminaires shall be sealed with a gasket or caulk between the housing and the interior wall or ceiling covering.
- R403.1.1 **Thermostat**
All dwelling units will have at least (I) programmable thermostat for each separate heating and cooling system per 2021 IECC Section 403. I. I.
- R403.1.2 Where a Heat pump system having supplementary electric resistance heat is used (except during defrost) the thermostat shall prevent the supplementary heat from coming on when heat pump can meet heating load.
- R403.3.1 **Ducts Located Outside Conditioned Space**
Supply and Return Ducts outside of conditioned spaces shall be insulated to R-8 minimum, R-6 when duct is less than 3 inches.
- R403.3.4 **Duct Sealing**
All ducts, air handlers, filter boxes will be sealed. Joints and seams will comply with 2021 IRC or 2021 IMC as applicable.
- R403.3.5 **Duct Testing**
A duct test shall be performed in accordance with ANSI/RESNET/ICC 380 or ASTM E1554 to determine air leakage and shall be verified by either a post construction test or rough-in test. Test not required for ducts serving ventilation systems not integrated with ducts serving heating and cooling systems.
- R403.6 **Mechanical Ventilation**
Outdoor, make-up, and exhausts air ducts to be provided with automatic or gravity damper that close when the ventilation system is not operating. Ventilation system shall comply with section M1505 of the 2021 IRC or the 2021 IMC.
- R403.6.2 **Whole-Dwelling Mechanical Ventilation System Fan Efficacy**
System shall meet requirements of TABLE R403.6.2.
- R403.7 **Equipment Sizing shall comply with R403.7.**
- R404.1 **Lighting Equipment**
All lights (excluding kitchen appliance lights) must contain high efficacy lighting sources.

R404.1

Interior Lighting Controls

Lighting fixtures shall be controlled with either a dimmer or occupant sensor (not required for bathrooms, hallways, or security lighting).

The contractor is responsible for generating the Certificate of Compliance and affixing it to the electrical panel or within 6 feet of the electrical panel and be readily visible.