



City of St. Louis, Missouri Professionals

The City of St. Louis has adopted an amended version of the 2018 International Energy Conservation Code (2018 IECC) as the baseline code for residential buildings in the city. You can use the checklist below to verify key residential code requirements that are easy to identify.

While this checklist doesn't include every requirement, it serves as a helpful guide for professionals as they seek or verify compliance with the local residential energy code in the field. Please refer to your local published energy code for complete documentation of all requirements and consult your local code official for questions and clarification. In Missouri, building energy codes are adopted at the local level, so these requirements may not apply to all jurisdictions in the state.

Mandatory Requirements:

Energy Certificate

- ☐ Energy certificate located on circuit breaker box is completed and signed

Air Sealing

- ☐ All holes between floors and through exterior walls/ceilings have been sealed with caulk or foam, in accordance with table 402.4.1.1.
- ☐ Air leakage rate tested and verified to be ≤ 3 ACH50

Ducts

- ☐ **All** ducts are sealed with approved materials (e.g. mastic or UL 181 tape) - duct tape is not acceptable
- ☐ All ducts outside conditioned space are tested to verify duct leakage with a total duct leakage test

Heating & Cooling

- ☐ Controls: Programmable thermostat installed
- ☐ Equipment sized per ACCA Manuals S & J

Lighting

- ☐ Minimum of **90%** high-efficacy lamps installed
- ☐ Recessed lighting in thermal envelope IC-rated and air tight

Building Cavities

- ☐ Building framing cavities shall not be used as supply ducts, return ducts or plenums

Mechanical Ventilation

- ☐ Installed according to requirements in the 2018 International Residential Code or International Mechanical Code

Windows & Doors

- ☐ Windows, skylights and sliding glass doors infiltration rate ≤ 0.3 cfm/ft²
- ☐ Swinging doors infiltration rate ≤ 0.5 cfm/ft²

Other Requirements

- ☐ Wood-burning fireplaces have tight flue dampers or doors and outdoor combustion air
- ☐ Mechanical system piping insulated to min R-3 for $>105^\circ$ F or $< 55^\circ$ F
- ☐ Circulating hot water systems shall be in accordance with section R403.5.1.1

Energy Code Compliance Paths:

Must only follow one method. See additional requirements on back.

- ☐ **Prescriptive Method:** Comply with all mandatory and prescriptive requirements and complete checklist on the back of this page
- ☐ **Total UA Method:** Comply with all mandatory requirements and submit documentation to show compliance with UA tradeoffs (e.g. DOE REScheck)
- ☐ **Simulated Performance Alternative:** Comply with all mandatory requirements and submit an energy cost report to show compliance
- ☐ **Energy Rating Index:** Comply with all mandatory requirements and submit an Energy Rating Index report to show compliance

Compliance Paths - Choose One:

Prescriptive Method Requirements

Code Section	Building Components	Prescriptive Standard	Proposed Value	Remarks
Insulation (R402.2) Prescriptive Standard is a Minimum R-Value				
R402.2.1	Ceilings with Attic Spaces	R-38		R-38 for standard truss, can be reduced to R-30 with Raised Heel/Energy Truss
R402.2.2	Ceilings without Attic Spaces	R-30		Limited to 500 SF or 20% of the total insulated ceiling area, whichever is less
Table R402.1.2	Wood Frame Wall	R-20 or 13+5		R-20 for interior cavity or R-13 for interior cavity plus R-5 continuous insulation
R402.2.8	Floors over unconditioned space	R-19		Floor insulation shall maintain permanent contact with subfloor decking
R402.2.9	Conditioned Basement Walls	R-0		Modified in St. Louis but installing insulation is still considered a best practice
R402.2.10	Slab-on-grade floors	R-10, 2 ft		Insulation shall be from top of slab to 2 feet below grade
R402.2.11	Conditioned crawl space walls	R-10 or R-13		R-10 continuous insulation on the interior or exterior, or R-13 for interior wall cavity
Fenestrations; Prescriptive Standard is Maximum U-Factor				
R402.3.1	Windows, glass, opaque and swinging doors with >50% glazing	U-0.32		An area weighted average may be used to satisfy the U-factor requirements but must include all windows, skylights, glass doors and opaque doors (provide documentation).
R402.3.1	Skylights	U-0.55		
R402.3.2	Glazed Fenestration	SHGC-0.40		
Other Prescriptive Requirements				Proposed Value
Eave Baffle (R402.2.3): Vented attics with blown-in or fiberglass insulation should have a baffle				☐ Eave Baffle Installed ☐ N/A
Attic Hatches (R402.2.4): Access doors to attic must be weather-stripped and insulated				Insulation Level _____ ☐ N/A
Duct Insulation (R403.3.1): Supply & return ducts in attic insulated to ≥ R-8 when ducts ≥3" and ≥ R-6 when ducts <3", all other ducts outside thermal envelope insulated to ≥ R-6 or ≥ R-4.2				Insulation Level _____ ☐ N/A
Duct Leakage (R403.3.4): Total duct leakage test to verify a leakage rate of 4 cfm/100 ft² or less if furnace or any duct is outside of thermal envelope				☐ Tested; Results: _____ ☐ N/A
Hot Water Pipe Insulation: (R403.5.3): Hot water piping with a thermal resistance shall be insulated to ≥ R-3 if 3/4" or larger, outside conditioned space or other instances listed				Insulation Level _____ ☐ N/A

Simulated Performance Requirements

- ☐ All mandatory requirements must be met. Submit an energy cost analysis report which demonstrates that the proposed design (as built) home is more efficient than the standard reference design home (table R405.5.2(1)). See section R405 for additional details.

Energy Rating Index Requirements

- ☐ All Mandatory requirements met. Meet or exceed 2009 IECC prescriptive envelope requirements (If solar, meet 2015 IECC)
- ☐ ERI score of **62 or lower**. Submit report demonstrating compliance.

Total UA Method Requirements

- ☐ All mandatory and prescriptive requirements (other Table R402.1.2) must be met. Include documentation to demonstrate compliance with the UA Tradeoff method.

REScheck or other compliance software submittal must include completed compliance form, inspection checklist and certificate using 2018 IECC levels.