

Residential Air Leakage and Insulation Installation Checklist

ECCCNYS-2020

Table 402.4.1.1

Date: _____ Name of Evaluator(s): _____

Building Name & Address: _____ Conditioned Floor Area: _____ ft²

Building Contact: Name: _____ Phone: _____ Email: _____

Compliance Approach: ☐ Prescriptive (402.1.2 or 402.1.3) ☐ UA Trade-off (402.1.4) ☐ Building Performance (405) ☐ REScheck ☐ ERI Method (R406)

State: _____ Jurisdiction: _____

Building Type: 1- and 2-Family, Detached: ☐ Single Family ☐ Modular ☐ Townhouse

Multifamily: ☐ Apartment ☐ Condominium

Project Type: ☐ New Construction ☐ Addition to existing building ☐ Existing building renovation

COMPONENT	CRITERIA*	PLAN REVIEW			SITE INSPECTION		
		Y	N	N/A	Y	N	N/A
1. Air barrier and thermal barrier	A continuous air barrier shall be installed in the building envelope.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Exterior thermal envelope contains a continuous air barrier.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Breaks or joints in the air barrier shall be sealed.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Air-permeable insulation shall not be used as a sealing material.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Ceiling/attic	The air barrier in any dropped ceiling/soffit shall be aligned with the insulation and any gaps in the air barrier sealed.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Access openings, drop down stair or knee wall doors to unconditioned attic spaces shall be sealed.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Walls	Corners and headers shall be insulated and the junction of the foundation and sill plate shall be sealed.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	The junction of the top plate and top of exterior walls shall be sealed.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Exterior thermal envelope insulation for framed walls shall be installed in substantial contact and continuous alignment with the air barrier.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Knee walls shall be sealed.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Windows, skylights and doors	The space between window/door jambs and framing, and skylights and framing, shall be sealed.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Rim joists	Rim joists shall be insulated and include the air barrier.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Floors (including built-over garage and cantilevered floors)	Insulation shall be installed to maintain permanent contact with underside of subfloor decking.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	The air barrier shall be installed at any exposed edge of insulation.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Crawl space walls	Where provided in lieu of floor insulation, insulation shall be permanently attached to the crawlspace walls.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Exposed earth in unvented crawl spaces shall be covered with a Class I vapor retarder with overlapping joints taped.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Shafts, penetrations	Duct shafts, utility penetrations, and flue shafts opening to exterior or unconditioned space shall be sealed.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Narrow cavities	Batts in narrow cavities shall be cut to fit, or narrow cavities shall be filled by insulation that on installation readily conforms to the available cavity space.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Garage separation	Air sealing shall be provided between the garage and conditioned spaces.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Recessed lighting	Recessed light fixtures installed in the building thermal envelope shall be air tight, IC rated, and sealed to the drywall.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Plumbing and wiring	Batt insulation shall be cut neatly to fit around wiring and plumbing in exterior walls, or insulation that on installation readily conforms to available space shall extend behind piping and wiring.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Shower/tub on exterior wall	Exterior walls adjacent to showers and tubs shall be insulated and the air barrier installed separating them from the showers and tubs.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. Electrical/phone box on exterior walls	The air barrier shall be installed behind electrical or communication boxes or air sealed boxes shall be installed.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. HVAC register boots	HVAC register boots that penetrate building thermal envelope shall be sealed to the subfloor or drywall.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. Concealed Sprinklers	Sprinkler systems passing through building envelope shall be sealed ONLY in a manner allowed by the sprinkler manufacturer, in order to best limit air leakage						
15. Fireplace	An air barrier shall be installed on fireplace walls. Fireplaces shall have gasketed doors.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

a. In addition, inspection of log walls shall be in accordance with the provisions of ICC-400.

Frankfort Codes Department
RESIDENTIAL DUCT & ENVELOPE TESTING (DET) FORM

House Address: _____ Permit #: _____ Date: _____

Permit holder: _____ Phone: _____

I. Building Envelope Air Leakage (mandatory):

Blower door test (Mandatory)

Test Result:

Fan Flow at 50 Pascals = _____ CFM50 Total Conditioned Volume = _____ ft³

ACH50 = CFM50 x 60 / Volume = _____ ACH50*

Testing company: _____ Phone: _____

Tester Name (print): _____ Signature: _____ Date: _____

BPI or HERS certification number: BPI no: _____ HERS Rater no: _____ HERS RFI no: _____

*For Simulated Performance Alternative and Energy Rating Index Paths, value must match IECC Energy Cost Report or Final ERI Report

II. Heating and Cooling System Duct Leakage

☐ I certify that all portions of the ducts are located entirely within the building thermal envelope. Testing is not required.

Owner or approved third party signature: _____ Date: _____

Total duct leakage test

Energy code compliance path: ☐ Prescriptive (including REScheck) ☐ Performance or Energy Rating Index

Type of test performed: ☐ Rough-in with air handler ☐ Rough-in without air handler ☐ Post construction

Test Result System 1:

Fan Flow at 25 Pascals (CFM25) _____ CFM Conditioned Floor Area (CFA) served by system = _____ ft²

CFM25 / CFA x 100 = _____ CFM/100 ft²

Test Result System 2 (if present):

Fan Flow at 25 Pascals (CFM25) _____ CFM Conditioned Floor Area (CFA) served by system = _____ ft²

CFM25 / CFA x 100 = _____ CFM/100 ft²

Testing company: _____ Phone: _____

Tester Name (print): _____ Signature: _____ Date: _____

BPI or HERS certification number: BPI no: _____ HERS Rater no: _____ HERS RFI no: _____