Residential Envelope Air Leakage Verification Form

Project Address: _____ Permit #: _____

Builder/Owner: _____ Builder/Owner Phone Number: _____

Choose a building envelope air leakage verification method per 2015 IECC 402.4.1.2:

- □ Testing option
- □ Visual inspection option – see reverse for required installation elements [Optional text: The visual inspection must be performed by an approved party independent of the installer of the insulation. See attached for a list of approved contractors.]

Conditioned floor area: _____ ft^2

Average ceiling height: _____ ft

Volume of conditioned space: _____ ft^3

Blower door test result: _____ CFM50

Show CFM50 to ACH50 conversion:

ACH50 = CFM50 x 60 / conditioned volume

_____ CFM50 x 60 / _____ ft^3 = _____ ACH50

□ Pass □ Fail

Testing company name: _____ Test date: _____

A blower door test has been performed has been performed for the location above, and the building envelope air leakage was measured to be under the maximum leakage rate as outlined in the 2015 International Energy Conservation Code/Chapter 11 of the 2015 International Residential Code/Pennsylvania's Alternative Residential Energy Provisions (2018).

Signature: _____ Date: _____

Air Barrier and Insulation Inspection Checklist (Table 402.4.2)

Component	Criteria	Complies	Does not Comply
Air barrier and thermal barrier	Exterior Thermal envelope insulation for framed walls is installed in substantial contact and continuous alignment with building envelope air barrier.	☐	☐
	Breaks or joints in the air barrier are filled or repaired.	☐	☐
	Air-permeable insulation is not used as a sealing material.	☐	☐
	Air-permeable insulation is inside of an air barrier.	☐	☐
Ceiling/attic	Air barrier in any dropped ceiling/soffit is substantially aligned with insulation and any gaps are sealed.	☐	☐
	Attic access (except unvented attic), knee wall door, or dropdown stair is sealed.	☐	☐
Walls	Corners and headers are insulated.	☐	☐
	Junction of foundation and sill plate is sealed.	☐	☐
Windows and doors	Space between window/door jams and framing is sealed.	☐	☐
Rim joists	Rim joists are insulated and include an air barrier.	☐	☐
Floors (including above-garage and cantilevered floors)	Insulation is installed to maintain permanent contact with underside of subfloor decking.	☐	☐
	Air barrier is installed at any exposed edge of insulation.	☐	☐
[Unvented] Crawl space walls	Insulation is permanently attached to walls.	☐	☐
	Exposed earth in unvented crawl spaces is covered with Class I vapor retarder with overlapping joints taped.	☐	☐
Shafts/penetrations	Duct shafts, utility penetrations, knee walls, and flue shafts opening to exterior or unconditioned space are sealed	☐	☐
Narrow cavities	Batts in narrow cavities are cut to fit, or narrow cavities are filled by sprayed/blown insulation.	☐	☐
Garage separation	Air sealing is provided between the garage and conditioned spaces.	☐	☐
Recessed lighting	Recessed light fixtures are air tight, IC rated, and sealed to drywall. Exception- fixtures in conditioned space.	☐	☐
Plumbing and wiring	Insulation is placed between outside and pipes.	☐	☐
	Batt insulation is cut to fit around wiring, plumbing, or sprayed/blown insulation extends behind piping and wiring.	☐	☐
Shower/tub on exterior wall	Showers and tubs on exterior walls have insulation and an air barrier separating them from the exterior wall.	☐	☐
Electrical/phone box on exterior wall	Air barrier extends behind boxes or air-sealed-type boxes are installed.	☐	☐
Common wall	Air barrier is installed in common wall between dwelling units.	☐	☐
HVAC register boots	HVAC register boots that penetrate building envelope are sealed to subfloor or drywall.	☐	☐
Fireplace	Fireplace walls include an air barrier.	☐	☐

Residential Energy Code Duct Leakage Verification Form

Project Address: _____ Permit #: _____

Builder/Owner: _____ Builder/Owner Phone Number: _____

Unless all ducts are located within conditioned space, one of the following must be verified (indicate one):

- ☐ The air handler and all ducts are located completely within conditioned space. Testing is not required. Builder/Owner signature required below.
- ☐ Rough-in total duct leakage with air handler installed is ≤ 6 cfm per 100 ft^2 @25 Pa
- ☐ Rough-in total duct leakage without air handler installed is ≤ 4 cfm per 100 ft^2 @25 Pa
- ☐ Post-construction duct leakage to outdoors is ≤ 8 cfm per 100 ft^2 @25 Pa
- ☐ Post-construction total duct leakage is ≤ 12 cfm per 100 ft^2 @25 Pa

Duct leakage testing exception:

I _____ certify that the air handler and all ducts are located completely within conditioned space.

Signature: _____ Date: _____

Duct leakage test result:

Square footage of conditioned floor area served by HVAC system: _____ ft^2

Tested leakage rate: _____ cfm_{25}

Formula: cfm_{25} / ft^2 of conditioned floor area served x 100 = Duct Leakage Result

_____ cfm_{25} / _____ ft^2 of conditioned floor area x 100 = _____ cfm per 100 ft^2 @25 Pa

☐ Pass ☐ Fail

Testing company name: _____ Test date: _____

A duct leakage test has been performed has been performed on the HVAC system for the location above, and the duct system meets the minimum leakage requirements outlined in the 2015 International Energy Conservation Code/Chapter 11 of the 2015 International Residential Code/Pennsylvania's Alternative Residential Energy Provisions (2018)

Signature: _____ Date: _____