

## Alabama Residential Energy Code Duct and Envelope Testing Results\*

Address: \_\_\_\_\_

Builder/Designer: \_\_\_\_\_

Phone: \_\_\_\_\_

Date: \_\_\_\_\_

### Envelope Summary: Building Envelope Tightness (BET)

BET test conducted by: \_\_\_\_\_ Phone: \_\_\_\_\_

Fan Flow at 50 Pascals = \_\_\_\_\_ CFM<sub>50</sub> Total Conditioned Volume = \_\_\_\_\_ ft<sup>3</sup>

ACH<sub>50</sub> = CFM<sub>50</sub> x 60 / Volume = \_\_\_\_\_ ACH<sub>50</sub> (not to exceed 5 ACH<sub>50</sub>)

	COMPONENT	AIR BARRIER CRITERIA	INSULATION INSTALLATION CRITERIA
1	General Requirements	A continuous air barrier shall be installed in the building envelope. The exterior thermal envelope contains a continuous air barrier. Breaks or joints in the air barrier shall be sealed.	Air-permeable insulation shall not be used as a sealing material.
2	Ceiling/attic	Air barrier in any dropped ceiling/soffit shall be aligned with the insulation and any gaps in the air barrier shall be sealed. Access openings, drop down stairs or knee wall doors to unconditioned attic spaces shall be sealed.	The insulation in any dropped ceiling/soffit shall be aligned with the air barrier.
3	Walls	The junction of the foundation and sill plate shall be sealed. The junction of the top plate and the top of exterior walls shall be sealed. Knee walls shall be sealed.	Cavities within corners and headers of frame walls shall be insulated by completely filling the cavity with a material having a thermal resistance of R-3 per inch minimum. Exterior thermal envelope insulation for framed walls shall be installed in substantial contact and continuous alignment with the air barrier.
4	Windows, skylights & doors	Space between window/door jambs and framing, and skylights and framing shall be sealed.	
5	Rim joists	Rim joists shall include the air barrier.	Rim joists shall be insulated.
6	Floors (including above-garage and cantilevered floors)	The air barrier shall be installed at any exposed edge of insulation.	Floor framing cavity insulation shall be installed to maintain permanent contact with the underside of subfloor decking, or floor framing cavity insulation shall be permitted to be in contact with the top side of sheathing, or continuous insulation installed on the underside of floor framing and extends from the bottom to the top of all perimeter floor framing members.
7	Crawl space walls	Exposed earth in unvented crawl spaces shall be covered with a Class I vapor retarder with overlapping joints taped.	Where provided instead of floor insulation, insulation shall be permanently attached to the crawlspace walls.
8	Shafts, penetrations	Duct shafts, utility penetrations, and flue shafts opening to exterior or unconditioned space shall be sealed.	
9	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.
10	Garage separation	Air sealing shall be provided between the garage and conditioned spaces.	
11	Recessed lighting	Recessed light fixtures installed in the building thermal envelope shall be sealed to the drywall.	Recessed light fixtures installed in the building thermal envelope shall be air tight and IC rated.
12	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.
13	Shower/tub on exterior wall	The air barrier installed at exterior walls adjacent to showers and tubs shall separate them from the showers and tubs.	Exterior walls adjacent to showers and tubs shall be insulated.
14	Electrical/phone box on exterior walls	The air barrier shall be installed behind electrical or communication boxes or air-sealed boxes shall be installed.	
15	HVAC Register boots	HVAC register boots that penetrate building thermal envelope shall be sealed to the subfloor or drywall.	
16	Concealed Sprinklers	When required to be sealed, concealed fire sprinklers shall only be sealed in a manner that is recommended by the manufacturer. Caulking or other adhesive sealants shall not be used to fill voids between fire sprinkler cover plates and walls or ceilings.	

### Mechanical Summary: Duct Tightness Verification (DTV)

DTV Test Conducted by: \_\_\_\_\_ Phone: \_\_\_\_\_

Tool used to conduct the duct tightness test: duct blower (DB).

Unless all ducts are located within conditioned space, builder must verify one of the following:

- Post-construction total duct leakage (PCT) is ≤ 4%
- Rough-in total duct leakage (RIT) with air handler installed is ≤ 4%
- Rough-in total duct leakage without air handler installed (RITnah) is ≤ 3%

% Duct Leakage Result = CFM<sub>25</sub> x 100 / Conditioned floor area served

System	Tool (DB)	Test (PCT, RIT, RITnah)	CFM <sub>25</sub>	Area served (ft <sup>2</sup> )	Result (%)	Pass (Yes or No)
1						
2						
3						

\*Note: This document to be posted on or in the electrical distribution panel.