



# ENERGY STAR Certified Homes, Version 3 / 3.1 (Rev. 09) 2019 Rater Quality Assurance Checklist

Home Address: _____ City: _____ State: _____ Zip Code: _____						
<b>Action Items / Summary of QA</b>			<b>Yes</b>	<b>No</b>		
If any Item marked "Must Correct," an action summary document shall be attached.			<input type="checkbox"/>	<input type="checkbox"/>		
<b>Rater Design Review Checklist</b>						
<b>4. Review of HVAC Design Report</b>			<b>Passed</b>	<b>Must Correct</b>	<b>Not Visible</b>	<b>N/A</b>
4.1 HVAC Design Report collected for records, with no Items left blank			<input type="checkbox"/>	<input type="checkbox"/>	-	<input type="checkbox"/>
4.2 HVAC Design Report reviewed by Rater for the following parameters (HVAC Design Report Item # indicated in parenthesis):						
4.2.2 Number of occupants used in loads (3.4) is within $\pm 2$ of the home to be certified			<input type="checkbox"/>	<input type="checkbox"/>	-	<input type="checkbox"/>
4.2.3 Conditioned floor area used in loads (3.5) is between 100 sq. ft. smaller and 300 sq. ft. larger than the home to be certified			<input type="checkbox"/>	<input type="checkbox"/>	-	<input type="checkbox"/>
4.2.4 Window area used in loads (3.6) is between zero and 15 sq. ft. smaller and 60 sq. ft. larger than the home to be certified or, for homes to be certified with > 500 sq. ft. of window area, between 3% smaller and 12% larger			<input type="checkbox"/>	<input type="checkbox"/>	-	<input type="checkbox"/>
4.2.5 Predominant window SHGC (3.7) is within 0.1 of predominant value in the home to be certified			<input type="checkbox"/>	<input type="checkbox"/>	-	<input type="checkbox"/>
<b>Rater Field Checklist</b>						
<b>1. High-Performance Fenestration &amp; Insulation</b>						
1.2 Insulation meets or exceeds levels specified in Item 3.1 of the Rater Design Review Checklist, where Item 3.1 requires that specified ceiling, wall, floor, and slab insulation levels comply with one of the following options:			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.1.1 Meets or exceeds 2009 IECC levels <b>OR</b> ;			-	-	-	-
3.1.2 Achieves $\leq 133\%$ of the total UA resulting from the U-factors in 2009 IECC Table 402.1.3, per guidance in Footnote 4d, AND specified home infiltration does not exceed the following: 3 ACH50 in CZs 1,2      2.5 ACH50 in CZs 3,4      2 ACH50 in CZs 5,6,7      1.5 ACH50 in CZ 8			-	-	-	-
1.3 All insulation achieves Grade I install. per ANSI / RESNET / ICC Std. 301., or alternative per Footnote 4 of Rater Field Checklist			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2. Fully-Aligned Air Barriers</b>						
2.3 At attic knee walls and skylight shaft walls, a complete air barrier provided that is fully aligned at exterior vertical surface of wall insulation in all climate zones; also at interior vertical surface of wall insulation in CZ 4-8			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3. Reduced Thermal Bridging</b>						
3.1 For insulated ceilings with attic space above (i.e., non-cathedralized), Grade I insulation extends to the inside face of the exterior wall below and is $\geq R-21$ in CZ 1-5; $\geq R-30$ in CZ 6-8			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.3 Insulation beneath attic platforms (e.g., HVAC platforms, walkways) $\geq R-21$ in CZ 1-5; $\geq R-30$ in CZ 6-8			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4. Air Sealing (Unless otherwise noted below, "sealed" indicates the use of caulk, foam, or equivalent material)</b>						
4.1 Bathroom & kitchen exhaust fans that penetrate unconditioned space sealed, with blocking / flashing as needed. <sup>1</sup>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.2 Recessed lighting fixtures adjacent to unconditioned space ICAT labeled and gasketed. Also, if in insulated ceiling without attic above, exterior surface of fixture insulated to $\geq R-10$ in CZ 4-8.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.9 Doors adjacent to unconditioned space (e.g., attics, garages, basements) or ambient conditions made substantially air-tight with weatherstripping or equivalent gasket			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.10 Attic access panels, drop-down stairs, & whole-house fans equipped with durable $\geq R-10$ cover that is gasketed (i.e., not caulked). Fan covers either installed on house side or mechanically operated.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>6. Duct Quality Installation</b>						
6.1 Ductwork installed without kinks, sharp bends, or excessive coiled flexible ductwork. <sup>1</sup>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.2 Bedrooms pressure-balanced (e.g., using transfer grilles, jump ducts, dedicated return ducts, undercut doors) to achieve a Rater-measured pressure differential $\geq -3$ Pa and $\leq +3$ Pa with respect to the main body of the house when all air handlers are operating, or alternative per Footnote 34 of Rater Field Checklist			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.3 All supply and return ducts in unconditioned space, including connections to trunk ducts, are insulated to $\geq R-6$ .			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.4 Rater-measured total duct leakage meets one of the following two options. See Footnote 37 of Rater Field Checklist for alternative:						
6.4.1 <u>Rough-in</u> : The greater of $\leq 4$ CFM25 per 100 sq. ft. of CFA or $\leq 40$ CFM, with air handler & all ducts, building cavities used as ducts, & duct boots installed. In addition, <u>all</u> duct boots sealed to finished surface, Rater-verified at final.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.4.2 <u>Final</u> : The greater of $\leq 8$ CFM25 per 100 sq. ft. of CFA or $\leq 80$ CFM, with the air handler & all ducts, building cavities used as ducts, duct boots, & register grilles atop the finished surface (e.g., drywall, floor) installed.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.5 Rater-measured duct leakage to outdoors the greater of $\leq 4$ CFM25 per 100 sq. ft. of CFA or $\leq 40$ CFM25.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>7. Whole-House Mechanical Ventilation System</b>						
7.7 Air inlet location (Complete if ventilation air inlet location was specified (2.12, 2.13); otherwise check "N/A"):						



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7.7.1 Inlet pulls ventilation air directly from outdoors & not from attic, crawlspace, garage, or adjacent dwelling unit.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.7.2 Inlet is ≥ 2 ft. above grade or roof deck; ≥ 10 ft. of stretched-string distance from known contamination sources (e.g., stack, vent, exhaust, vehicles) not exiting the roof, and ≥ 3 ft. distance from dryer exhausts and sources exiting the roof. <sup>1</sup>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>8. Local Mechanical Exhaust</b>			<b>Passed</b>	<b>Must Correct</b>	<b>Not Visible</b>	<b>N/A</b>
In each kitchen & bathroom, system is installed that exhausts directly to outdoors & meets one of the following Rater-measured airflow standards:						
<b>Location</b>	<b>Continuous Rate</b>	<b>Intermittent Rate</b>				
8.1 Kitchen <sup>1</sup>	≥ 5 ACH, based on kitchen volume	≥ 100 CFM and, if not integrated with range, also ≥ 5 ACH based on kitchen volume	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.2 Bathroom <sup>1</sup>	≥ 20 CFM	≥ 50 CFM	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>9. Filtration</b>						
9.1 At least one MERV 6 or higher filter installed in each ducted mechanical system in a location that facilitates access and regular service by the occupant			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.2 Filter access panel includes gasket or comparable sealing mechanism and fits snugly against the exposed edge of filter when closed to prevent bypass			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.3 All return air and mechanically supplied outdoor air passes through filter prior to conditioning			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>10. Combustion Appliances</b>						
10.1 Furnaces, boilers, and water heaters located within the home's pressure boundary are mechanically drafted or direct-vented. See Footnote 56 of Rater Field Checklist for alternatives.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10.3 If unvented combustion appliances other than cooking ranges or ovens are located inside the home's pressure boundary, the Rater has followed Section 802 of RESNET's Standards, encompassing ANSI/ACCA 12 QH-2014, Appendix A, Section A3 (Carbon Monoxide Test), and verified the equipment meets the limits defined within.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

QA Designee: \_\_\_\_\_ Rater RTIN #: \_\_\_\_\_  
 Status of home at time of inspection (e.g., under construction, occupied) : \_\_\_\_\_ Date of Inspection: \_\_\_\_\_  
 Rater Company Name: \_\_\_\_\_  
 Rater Name: \_\_\_\_\_ Rater RTIN #: \_\_\_\_\_ Rater Pre-Drywall Inspection Date: \_\_\_\_\_  
 Rater Name: \_\_\_\_\_ Rater RTIN #: \_\_\_\_\_ Rater Final Inspection Date: \_\_\_\_\_

Note: Additional checklist items may be inspected for quality insurance and included in the additional checklist items report.

Additional Checklist Items - Use this space to list additional items reviewed (attach additional pages, if needed)						
Checklist Name	Item #	Notes	Passed	Must Correct	Not Visible	N/A
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### Footnotes

1. This represents a subset of the Revision 09 Item, rather than the complete Item.