| v3 - LEED 2008

Outdoor air ventilation

EQc4 | Possible 3 points

Glossary

Intent

Reduce occupant exposure to indoor pollutants by ventilating with outdoor air.

Requirements

Prerequisites

4.1 **Basic outdoor air ventilation**. Design and install a whole building ventilation system that complies with ASHRAE Standard 62.2-2007. A summary of alternatives is provided below, but the HVAC contractor should review and follow the requirements of ASHRAE Standard 62.2-2007, Sections 4 and 7.

1. Mild climate exemption. A home built in a climate with fewer than 4,500 infiltration degree-days[3] is exempt from this prerequisite.
2. Continuous ventilation. Meet the ventilation requirements in **Table 1** below.
3. Intermittent ventilation. Use Equation 4.2 of ASHRAE Standard 62.2-2007 to demonstrate adequate ventilation air flow.
4. Passive ventilation. Have a passive ventilation system approved and verified by a licensed HVAC engineer as providing ventilation equivalent to that achieved by continuous ventilation systems as described in **Table 1**.

Credits

4.2 **Enhanced outdoor air ventilation** (2 points). Meet one of the following:

a. In mild climates (fewer than 4,500 infiltration degree-days), install a whole-building active ventilation system that complies with ASHRAE Standard 62.2-2007.

OR

b. Install a system that provides heat transfer between the incoming outdoor air stream and the exhaust air stream, such as a heat-recovery ventilator (HRV) or energy-recovery ventilator (ERV). The heat recovery system must be listed by a certified testing lab (e.g., UL, ETL).

4.3 **Third-party performance testing** (1 point). Have a third-party test the flow rate of air brought into the home, and verify that the requirements of ASHRAE Standard 62.2-2007 are met. In exhaust-only ventilation systems, install exhaust ducts according to Table 7.1 of ASHRAE Standard 62.2-2007, and either test the flow rate out of the home or conduct air flow tests to ensure back-pressure of ≤ 0.20 inches w.c.

Table 1 Minimum Air Flow Requirements for Continuous Ventilation Systems, in cfm

Conditioned floor area (ft2)	Bedrooms				
	0, 1	2, 3	4, 5	6, 7	> 7
≤ 1,500	30	45	60	75	90
1,501–3,000	45	60	75	90	105
3,001–4,500	60	75	90	105	120
4,501–6,000	75	90	105	120	135
6,001–7,500	90	105	120	135	150
> 7,500	105	120	135	150	165

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