

## Section 6: Airsealing Protocols & Order of Operations

### Required Airsealing Protocols in Site-Built Homes

#### Priority 1 | Perform Required Airsealing Measures

Priority # 1 -  
Airsealing  
Top of Building &  
Attached Garages

**Program Standard:**

Unless written permission from OEO is attained for a specific project, airsealing measures targeting “Top of Building” surfaces and/or any surfaces that separate a garage from living space must be performed regardless of (a) cost-effectiveness or (b) the proximity of the actual blower door reading to any form of a building tightness limit or infiltration threshold.

The Infiltration Threshold

5 ACH50

Note that old building science standards often established building tightness limits and 0.35 ACH was a commonly used building tightness limit. No decisions in Vermont’s WAP can be based on the old 0.35 ACH building tightness limit.

Install  
Mechanical  
Ventilation

**Order of Operations & Measure Prioritization:**

It is essential to prioritize weatherization work that will tighten up the top of the building and isolate garages from living space. Performing this important work first and using the blower door routinely while a weatherization job is in progress is a great way to:

- ✓ Verify effectiveness of priority airsealing measures as they are performed
- ✓ Ensure that the infiltration threshold is only intentionally crossed for the highest priority measures

After all required weatherization measures are completed, no additional general airsealing measures shall be intentionally performed once the blower door reading is at or below the 5 ACH50 infiltration threshold.

Mechanical ventilation must be added as needed to satisfy the local ventilation alternative compliance path requirements of ASHRAE 62.2-2016. This applies regardless of if a blower door reading is above or below the 5 ACH50 infiltration threshold.



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### Required Airsealing Protocols in Site-Built Homes

#### Priority 2 | Perform Required Insulation Measures

Priority # 2 -  
Insulate  
All Empty Walls &  
Insulate All Boxsills

**Program Standard:**

Unless written permission is attained from OEO for a specific project, all empty/uninsulated wall cavities and all boxsill areas shall be insulated in accordance with the policies outlined in this manual, regardless of the proximity of the actual blower door reading to any form of a building tightness limit or infiltration threshold.

The Infiltration Threshold

5 ACH50

Note that old building science standards often established building tightness limits and 0.35 ACH was a commonly used building tightness limit. No decisions in Vermont's WAP can be based on the old 0.35 ACH building tightness limit.

Install  
Mechanical  
Ventilation

**Order of Operations & Measure Prioritization:**

Prior to performing generalized airsealing work targeting the sides and bottom of the building shell it is important to install high priority insulation measures like wall insulation and boxsill insulation. During and after the installation of required weatherization insulation measures, job-in-progress blower door testing should be done. This is a great way to:

- ✓ Verify effectiveness of wall and boxsill weatherization measures as they are performed
- ✓ Ensure that the infiltration threshold is only intentionally crossed for the highest priority airsealing measures (*top of building airsealing + garage isolation*) and/or for the highest priority insulation measures (*insulate empty walls and insulate the boxsill*).

After all required weatherization measures are completed, no additional general airsealing measures shall be intentionally performed once the blower door reading is at or below the 5 ACH50 infiltration threshold.



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**Required Airsealing Protocols in Site-Built Homes**

**Priority 3 | Perform General Airsealing Measures**

Priority # 3 -  
General Airsealing  
Measures

**Program Standard:**

General Airsealing Measures targeting the bottom & sides of the building shell shall only be performed **AFTER** all required WAP measures have already been (a) completed & (b) visually verified to be installed in an effective manner with the aid of blower door assisted smoke testing.

At this point in the project, when the remaining airsealing opportunities are located at the bottom & sides of the building, priority must be given to bottom of building airsealing work. For example, air sealing the perimeter of a rubble foundation with single-part foam or mortar.



when either...

- (A) 100 (+) CFM50 reductions per technician hour worked are no longer being attained.
- or --
- (B) The 5 ACH50 Infiltration Threshold for the building is reached.

**The Infiltration Threshold**

**5 ACH50**

Note that old building science standards often established building tightness limits and 0.35 ACH was a commonly used building tightnes limit. No decisions in Vermont’s WAP can be based on the old 0.35 ACH building tightness limit.

**Order of Operations & Measure Prioritization:**

After all required weatherization measures are completed, no additional generalized airsealing measures targeting the sides or bottom of the building shell can be intentionally performed once the blower door reading is at or below the 5 ACH50 infiltration threshold.



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**Summary**

