

<b>CITY &amp; COUNTY OF DENVER</b> <b>COMMUNITY PLANNING &amp; DEVELOPMENT</b> <b>BUILDING PERMIT POLICY</b>		
<b>Subject: IECC, IMC Clarification on R-2 Ventilation Requirements</b>		
<b>Approved by: Scott V. Prisco, AIA, Building Official</b>		<b>Drafted by: Bartel</b>
<b>Number: 2018 IECC, 2018 IMC</b>	<b>Effective Date: April 25, 2016</b> <b>Revised Date: January 15, 2020</b>	<b>Page: 1</b>

**Reference: 2018 International Energy Conservation Code (IECC)**  
**2018 International Mechanical Code (IMC)**  
**2019 Denver Building Code Amendments (DBCA)**

**Scope:**

The 2018 IECC and 2019 DBCA were adopted on December 26, 2019. With this adoption, all Group R-2 dwelling units are now required to comply with the *commercial provisions* of the IECC.

This move has resulted in an unintended disconnect between the IECC and the IMC as it relates to ventilation strategies in Group R-2 occupancies. The scope of this policy is to clarify intent.

**Applicability:**

Per IMC Section 401.2, every occupied space shall be ventilated by natural means in accordance with Section 402, or by mechanical means in accordance with Section 403. Mechanical ventilation is required for dwelling units where the air infiltration rate in the dwelling unit is less than ACH/hour when tested with a blower door at a pressure of 0.2-inch water column (50 Pa), in accordance with IECC Section R402.4.1.2.

Group R-2 three stories and less in height above the grade plane has moved from the IECC Residential Provisions to the Commercial Provisions, thus all buildings in Group R-2 will now follow the Commercial Provisions of the IECC.

Per 2019 DBCA C402.5.1.3, commercial buildings now require a leakage rate of less than 0.40cfm/sqft when tested with a blower door at a pressure of 0.3-inch water column (75 Pa).

Per IMC Section 403.1, mechanical ventilation shall be provided by a method of supply air, and return or exhaust air, **except** for Group R-2, R-3, and R-4 occupancies three stories and less in height above the grade plane shall be provided by an exhaust system, supply system, or combination thereof.

Section 403.3 requires Group R-2, R-3 and R-4 occupancies three stories and less in height above grade plane to be provided with outdoor air and local exhaust per Section 403.3.2. Other buildings intended to be occupied shall be provided with outdoor air and local exhaust per Section 403.3.1.

**Intent:**

The link from Section 401.2 of the IMC to section R402.4.1.2 of the IECC no longer exists per DBCA to the IECC, however blower door testing and air infiltration rates which would result in less than 5 air changes per hour are required per Section C402.5.1.3 of the IECC. Mechanical ventilation will continue to be required for dwelling units in buildings 3 stories and less in height above the grade plane.

Ventilation strategies for dwelling units in buildings more than three stories in height were unaffected by the DBCA to the IECC and IMC, therefore ventilation can be provided by using natural means per Section 402 or by mechanical means per Section 403.