

Public Review Draft

Proposed Addendum q to Standard 189.1-2017

Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings

First Public Review (March 2019)
(Draft Shows Proposed Changes to Current Standard)

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Foreword: This addendum identifies a number of requirements from Section 8 of Standard 189.1 as being appropriate for local jurisdictions to consider excluding from their adopting ordinances. A new Table 4.2 is added which lists these requirements in a format intended to simplify review by the jurisdiction. The new table is modeled on Table 302.1 of the 2015 IgCC and is not applicable to compliance with the standard, but is intended to be normative in the IgCC. Compliance with all requirements, including those listed in Table 4.2, remain required for compliance with Standard 189.1.

Note: In this addendum, changes to the current standard are indicated in the text by underlining (for additions) and ~~strikethrough~~ (for deletions) unless the instructions specifically mention some other means of indicating the changes. Only these changes are open for review and comment at this time. Additional material is provided for context only and is not open for comment except as it relates to the proposed substantive changes.

Addendum q to 189.1-2017

Add a new informative Section 4.2 including a new informative Table 4.2, and move Sections 4.1.1 through 4.1.4 to a new Section 4.3:

4. ADMINISTRATION AND ENFORCEMENT

4.1 General. Building projects shall comply with Sections 4 through 11. Within each of those sections, building projects shall comply with all mandatory provisions (x.3) and, where offered, either the

- a. Prescriptive Option (x.4) or
- b. Performance Option (x.5).

Informative Note – to become normative in IgCC:

4.2 Requirements determined by the jurisdiction. The jurisdiction shall indicate the following information in Informative Table 4.2 for inclusion in its code adopting ordinance:

1. Where “No” boxes are provided, the jurisdiction shall check the box to indicate where that section is not to be enforced as a requirement in the jurisdiction. Where the “No” box is not checked, that section is to be enforced.

2. Where a numerical value is required to specify the level of performance required, the jurisdiction shall indicate the required value. Where a numerical value is not indicated, the value in the text is to be enforced.

***Informative Note:** The jurisdictional requirements listed in Table 4.2 are formatted to afford jurisdictions the flexibility to adapt the code in a manner that is best suited to meet their unique environmental and regional goals and needs. Enforcement of these jurisdictional requirements will result in higher performing buildings, but may go beyond the needs of specific jurisdictions. Jurisdictional option provisions are indicated in the body of the standard with the symbol [JO] after the section number.*

**INFORMATIVE TABLE 4.2 – to become normative in IgCC
REQUIREMENTS DETERMINED BY THE JURISDICTION**

SECTION	SECTION TITLE OR DESCRIPTION AND DIRECTIVES	Jurisdictional Requirement
<u>8.3.1.5.1</u>	<u>Vented Combustion</u>	___ No
<u>8.3.1.10</u>	<u>Preoccupancy Ventilation Control</u>	___ No
<u>8.3.3.4</u>	<u>Interior Sound Reverberation</u>	___ No
<u>8.4.1.3</u>	<u>Shading for Offices</u>	___ No

4.3 References and Appendices.

4.13.1 Referenced Standards. The standards referenced in this standard and listed in Section 11 shall be considered part of the requirements of this standard to the prescribed extent of such reference. Where differences exist between provisions of this standard and a referenced standard, the provisions of this standard shall apply. Informative references in Informative Appendix G are cited to acknowledge sources and are not part of this standard.

4.13.2 Normative Appendices. The normative appendices to this standard are considered to be integral parts of the mandatory requirements of this standard, which for reasons of convenience are placed apart from all other normative elements.

4.13.3 Informative Appendices. The informative appendices to this standard, and informative notes located within this standard, contain additional information and are not mandatory or part of this standard.

4.13.4 Reference Standard Reproduction Annexes. The reference standard reproduction annexes contain material that is cited in this standard but that is contained in another standard. The reference standard reproduction annexes are not part of this standard but are included in its publication to facilitate its use.

Add [JO] following the section number to indicate that Section 8.3.1.5.1 is a jurisdictional option:

8.3.1.5 Venting of Combustion Products

8.3.1.5.1 [JO] Vented Combustion. Permanently installed appliances shall have products of combustion vented to the outdoors.

Exceptions to 8.3.1.5.1:

1. Ovens and ranges in *residential spaces*.

2. Heaters certified to ANSI Z83.19/CSA 2.35, mounted greater than or equal to 10 ft (3 m) above the occupied floor.
3. Heaters certified to ANSI Z83.4/CAN 3.7.
4. Heaters certified to ANSI Z21.11.2, provided that the aggregate input rating of all such appliances does not exceed 1000 Btu/h per 1500 ft³ (700 W per 100 m³) of *space* volume.

8.3.1.5.2 Ranges in Residential Spaces. Gas and electric ranges in *residential spaces* shall comply with ASHRAE Standard 62.2, Section 5.1, using a range hood.

Add [JO] following the section number to indicate that Section 8.3.1.10 is a jurisdictional option:

8.3.1.10 [JO] Preoccupancy Ventilation Control. Ventilation systems serving zones that are not continuously occupied shall have controls designed to automatically provide *outdoor air* to the zones, prior to their scheduled occupancy, where the zones served by the ventilation system have been unoccupied for 24 hours or longer. This preoccupancy ventilation shall be provided continuously at the system design *minimum outdoor airflow* for a period of one hour prior to the expected occupancy, or at an *outdoor air* rate and for a time period that provides the same number of air changes as the design *minimum outdoor airflow* for one hour. If the preoccupancy ventilation period requires ventilation earlier than as required by ANSI/ASHRAE/IES Standard 90.1, Section 6.4.3, the preoccupancy ventilation start time of Section 8.3.1.7 shall take precedence.

Exception to 8.3.1.10: Hotel and motel guest rooms subject to *automatic* control of HVAC and lighting as required in Sections 7 and 8.

Add [JO] following the section number to indicate that Section 8.3.3.4 is a jurisdictional option:

8.3.3.4 [JO] Interior Sound Reverberation. The reverberation time *T60* for designated *spaces* shall be calculated in accordance with ANSI/ASA S12.60-2010, Part 1, Annex A, for the octave bands 500, 1000, and 2000 Hz and shall not exceed the values specified in Table 8.3.3.4 for fully furnished rooms.

Add [JO] following the section number to indicate that Section 8.4.1.3 is a jurisdictional option:

8.4.1.3 [JO] Shading for Offices. For office *spaces* 250 ft² (23m²) and larger, each façade shall be designed with a shading *projection factor (PF)*. The *PF* shall not be less than 0.5 for the first story above grade and 0.25 for other abovegrade stories. Shading is allowed to be external or internal using the *interior PF*. Shading devices shall be limited to the following:

- a. Louvers, sun shades, light shelves, and any other permanent device. Any *vertical fenestration* that employs a combination of interior and external shading is allowed to be separated into multiple segments for compliance purposes. Each segment shall comply with the requirements for either external or *interior PF*.

b. Building self-shading through *roof* overhangs or recessed windows.

Exceptions to 8.4.1.3:

1. Facades facing within 45 degrees of true north in the northern hemisphere or facades facing 45 degrees from true south in the southern hemisphere.
2. Translucent panels and glazing systems with a measured haze value greater than 90% when tested according to ASTM D1003 or other test method approved by the *AHJ*, and that are entirely 8 ft (2.5 m) above the floor do not require external shading devices.
3. Where equivalent shading of the *vertical fenestration* is provided by buildings, structures, geological formations, or permanent exterior projections that are not horizontal, as determined by sun-angle studies at the peak solar altitude on the summer solstice and three hours before and after the peak solar altitude on the summer solstice.
4. *Vertical fenestration* with automatically controlled shading devices in compliance with Exception (2) of Section 7.4.2.5.
5. *Vertical fenestration* with automatically controlled *dynamic glazing* in compliance with Exception (3) of Section 7.4.2.5.
6. Existing buildings undergoing alteration, repair, relocation, or a change in occupancy.