

Public Review Draft

Proposed Addendum ab to Standard 189.1-2017

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

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

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(This foreword is not part of this standard. It is merely informative and does not contain requirements necessary for conformance to the standard. It has not been processed according to the ANSI requirements for a standard and may contain material that has not been subject to public review or a consensus process. Unresolved objectors on informative material are not offered the right to appeal at ASHRAE or ANSI.)

FOREWORD:

This addendum would add a requirement to Section 8, Indoor Environmental Quality, that a view to the outdoors or an indoor atrium must be provided from at least 50% of the floor area in three specific space types: offices, classrooms, and patient rooms in healthcare facilities.

A view to the outdoors is an essential and fundamental element of a healthy and productive indoor environment. There is a large body of work demonstrating the importance of providing views to the health and well-being of building occupants such as: increased productivity, increased cognitive performance, decreased absenteeism, improved sleep habits and health in offices, increased learning rates and test scores for students, and improved health outcomes and decreased hospital stays in patient settings (references available upon request.) The LEED rating system, the 2015 International Green Construction Code, the WELL Building Standard, and the PBS-P100 (Facility Standards for the Public Buildings Service) have all incorporated views as a requirement or as an optional requirement for many years, thus building owners and designers have become familiar with these requirements. While this proposal is somewhat similar to the views project elective criteria in the IgCC 2015, this proposal is designed to be less stringent such that it can be applied to the listed key spaces in all green buildings covered by this standard. The other ratings systems/standards require more spaces and building area to have access to a view, and in some cases, they have additional requirements as to the quality of view that is acceptable. This proposal adds a jurisdictional option for an important requirement that will improve the health, well-being and productivity of building occupants.

The term view fenestration is already defined in Standard 189.1-2017 as:

view fenestration: fenestration that complies with all of the following:

- a. It provides building occupants with a view to the outdoors or to an interior daylit atrium.
- b. It has undiffused glazing with a haze value less than 3%, as determined in accordance with ASTM D1003.
- c. It has a center-of-glass visible transmittance (VT) of not less than 20%.
- d. The product of the center-of-glass VT and the openness factor of screens, patterned films, and ceramic frits is not less than 20%.
- e. Where dynamic glazing is provided, such glazing has a center-of-glass VT of not less than 20% at the highest end of its range.
- f. Where nonoperable opaque window treatments are provided, such as blinds, shades, and louvers, such treatments do not obstruct more than 40% of the fenestration glazing area.

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[Note to Reviewers: This addendum makes proposed changes to the current standard. These changes are indicated in the text by underlining (for additions) and ~~striketrough~~ (for deletions) unless the instructions specifically describe some other means of indicating the changes. Only the changes shown in this addendum are open for review and comment at this time. Other addenda and any other additional material is provided for context only and is not open for comment except as it relates to the proposed substantive changes of this addendum.]

Addendum ab to 189.1-2017

Note to Reviewers: The sections impacted by this addendum are in the process of undergoing other modifications as proposed by addenda o, p, q, r, s, t, which have completed their first public review. Each of the previous addenda includes the same proposed textual changes to Section 4, but with a different addition to Table 4.2. Addendum ab proposes a new addition to this table. Portions of addenda q have been included in this document for reference only, to demonstrate how the new information is being introduced in Section 4. This is not to be considered for inclusion in the public review process for addendum ab. Also included for reference is an example of how Section 4 would appear with the integration of all pending addenda ab, o, p, q, r, s, and t.

Add a new row to [Table 4.2](#) indicating that the new Section 8.3.9 is a jurisdictional option:

INFORMATIVE TABLE 4.2 – to become normative in IgCC

REQUIREMENTS DETERMINED BY THE JURISDICTION

SECTION	SECTION TITLE OR DESCRIPTION AND DIRECTIVES	Jurisdictional Requirement
<u>8.3.9</u>	<u>Exterior Views</u>	<u>No</u>

Add a new Section 8.3.9 as follows:

8.3.9 [JO] Exterior Views. Not less than 50% of the total floor area of each of the space types listed in Table 8.3.9A shall have a direct line-of-sight, originating at a height of 40 in. (1.0 m) above the floor, to view fenestration as specified in Table 8.3.9B.

Table 8.3.9A Exterior View Space Types

<u>Classrooms</u>
<u>Enclosed offices and open plan offices</u>
<u>Patient rooms within a healthcare facility</u>

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Table 8.3.9B Required View Fenestration Area

<u>Line of Sight Distance to View Fenestration</u>	<u>Minimum View Fenestration Area</u>
0 to 25 ft (7.6 m)	15 ft ² (1.4 m ²)
More than 25 ft (7.6 m) to 40 ft (12 m)	45 ft ² (4.2 m ²)

FOR REFERENCE ONLY: 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

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REQUIREMENTS DETERMINED BY THE JURISDICTION

...

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

...

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.

FOR REFERENCE ONLY: Anticipated Section 4

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

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- a. Prescriptive Option (x.4) or
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INFORMATIVE TABLE 4.2 – to become normative in IgCC

REQUIREMENTS DETERMINED BY THE JURISDICTION

SECTION	SECTION TITLE OR DESCRIPTION AND DIRECTIVES	Jurisdictional Requirement
5.3.3.2	Greenfield Sites	___ No
5.3.5.2	Mitigation of Heat Island Effect, Walls	___ No
5.3.6	Reduction of Light Pollution	___ No
5.3.7.1.1.1	Public Frontage Walkway	___ No
5.3.7.1.2	Bicycle Paths	___ No
5.3.7.2.2	Bicycle Parking, Location	___ No
5.3.7.2.3	Bicycle Parking, Horizontal Parking Racks	___ No
5.3.7.2.5	Bicycle Parking, Security and Visibility	___ No

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5.3.8.1	Building Site Waste Management – Diversion Percentage	___ 75% ___ 50%
6.3.1.2.1 a3	Irrigation System Design, Master Valve	___ No
6.3.1.2.1 a4	Irrigation System Design, Flow Sensors	___ No
6.3.3	Special Water Features	___ No
6.3.4.2	Consumption Data Collection	___ No
6.3.4.3	Data Storage and Retrieval	___ No
6.3.8	Dual Water Supply Plumbing	___ No
7.4.2.1	Building Envelope Requirements	___ No
7.4.2.2	Single Rafter Roof Insulation	___ No
7.4.2.3	High Speed Doors	___ No
7.4.2.6	Permanent Projections	___ No
7.4.2.9	Orientation	___ No
7.4.3.2	Ventilation Controls for Densely Occupied Spaces	___ No
7.4.3.4	Economizers	___ No
7.4.3.5	Zone Controls	___ No
7.4.3.6	Fan System Power and Efficiency	___ No
7.4.3.7	Exhaust Air Energy Recovery	___ No
7.4.3.8	Kitchen Exhaust Systems	___ No
7.4.3.10	Automatic Control of HVAC and Lights in Hotel/Motel Guest Rooms	___ No
7.4.4.2	Insulation for Spa Pools	___ No
7.4.6.2	Occupancy Sensor Controls with Multilevel Switching or Dimming.	___ No
7.4.6.3	Automatic Controls for Egress and Security Lighting	___ No
7.4.7.2	Supermarket Heat Recovery	___ No

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7.4.7.4	Programmable Thermostats	___ No
7.4.7.5	Refrigerated Display Cases	___ No
8.3.1.3.(b)	Ozone	___ No
8.3.1.4	Building Pressure	___ No
8.3.1.5.1	Vented Combustion	___ No
8.3.1.10	Preoccupancy Ventilation Control	___ No
8.3.1.9	Guest Room Preoccupancy Outdoor Air Purge Cycle	___ No
8.3.3.4	Interior Sound Reverberation	___ No
8.3.4	Soil Gas Control	___ No
8.3.9	Exterior Views	___ No
8.4.1.3	Shading for Offices	___ No
9.3.1.2	Total Waste	___ No