

**ANSI/ASHRAE/ICC/USGBC/IES Addendum by to
ANSI/ASHRAE/USGBC/IES Standard 189.1-2017**

Standard for the Design of High-Performance Green Buildings

**Except Low-Rise
Residential Buildings**

The Complete Technical Content of the International Green Construction Code®

Approved by ASHRAE and the American National Standards Institute on September 30, 2020; by the International Code Council on September 5, 2020; by U.S. Green Building Council on September 17, 2020; by the Illuminating Engineering Society on September 22, 2020.

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ASHRAE obtains consensus through participation of its national and international members, associated societies, and public review.

ASHRAE Standards are prepared by a Project Committee appointed specifically for the purpose of writing the Standard. The Project Committee Chair and Vice-Chair must be members of ASHRAE; while other committee members may or may not be ASHRAE members, all must be technically qualified in the subject area of the Standard. Every effort is made to balance the concerned interests on all Project Committees.

The Senior Manager of Standards of ASHRAE should be contacted for

- interpretation of the contents of this Standard,
- participation in the next review of the Standard,
- offering constructive criticism for improving the Standard, or
- permission to reprint portions of the Standard.

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FOREWORD

Addendum by adds a new informative appendix to coordinate ANSI/ASHRAE/ICC/USGBC/IES Standard 189.1 with select prerequisites and credits in the U.S. Green Building Council's LEED Green Building Rating System. The changes made are considered valuable for guiding integration of Standard 189.1 technical requirements with the International Green Building Construction Code (IgCC).

Note: In this addendum, changes to the current standard are indicated in the text by underlining (for additions) and ~~strike through~~ (for deletions) unless the instructions specifically mention some other means of indicating the changes.

Addendum by to Standard 189.1-2017

Add a new informative appendix as shown.

(This appendix 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.)

INFORMATIVE APPENDIX J **REQUIREMENTS THAT OVERLAP WITH CORE ELEMENTS** **OF THE LEED RATING SYSTEM**

This informative appendix is intended to assist jurisdictions that are considering the adoption of mandatory green building strategies into code by identifying the requirements in this standard that align with core elements of the LEED rating system. The requirements listed in Table J-1 align closely with prerequisites and the most frequently achieved credits in the USGBC's LEED Building Design and Construction (BD+C) rating system (versions 4.0 and 4.1). This appendix is intended to be used independently of the jurisdictional option Table 4.2 in Section 4 of this standard.

Table J-1 Requirements that Align with Leed

Section	Section Title or Description and Directives
5. Site Sustainability	
5.3.4	Stormwater Management.
5.3.4.1	Projects on Greenfields.
5.3.4.2	Projects on Greyfields.
5.3.5	Mitigation of Heat Island Effect
5.3.5.1	Site Hardscape.
5.3.5.3	Roofs.
5.3.5.4	Solar Reflectance Index (SRI).
5.3.6	Reduction of Light Pollution
6. Water Use Efficiency	
6.3.1.1	Landscape Design.
6.3.2.1	Plumbing Fixtures and Fittings.

Table J-1 Requirements that Align with Leed

Section	Section Title or Description and Directives
6.3.2.2	Appliances
6.3.2.3	HVAC Systems and Equipment
6.3.4	Water Consumption Measurement
6.3.7	On-Site Reclaimed Water Treatment Systems.
7. Energy Efficiency	
7.3.1	General.
7.3.3	Energy Consumption Management.
8. Indoor Environmental Quality (IEQ)	
8.3.1	Indoor Air Quality.
8.3.1.1	Minimum Ventilation Rates.
8.3.1.2	Outdoor Air Delivery Monitoring.
8.3.1.3a	Filtration and Air Cleaner Requirements – Particulate Matter.
8.3.1.3c	Filtration and Air Cleaner Requirements – Sealing.
8.3.1.4.1	Mechanical Exhaust.
8.3.1.5.2	Ranges in Residential Spaces.
8.3.1.7	Environmental Tobacco Smoke
8.3.2	Thermal Environmental Conditions for Human Occupancy
8.4.2	Materials.
8.4.2.1	Adhesives and Sealants.
8.4.2.2	Paints and Coatings
8.4.2.3	Floor Covering Materials.
8.4.2.4	Composite Wood, Wood Structural Panel, and Agrifiber Products.
8.4.2.6	Ceiling and Wall Assemblies and Systems.
8.4.2.7	Insulation.
9. Materials And Resources	
9.3.1.1	Diversion
9.3.1.3	Construction and Demolition Waste Management Plan.
9.3.4	Areas for Storage and Collection of Recyclables and Discarded Goods.
9.3.4.1	Recyclables.
9.4.1.4.1	Industry-Wide Declaration.
9.4.1.4.2	Product-Specific Declaration.
10. Construction And Plans For Operation	
10.3.1.1	Building Systems FPT.
10.3.1.1.1	FPT Requirements.
10.3.1.1.1.1	Activities Prior to Building Permit for Facilities Using the FPT Process.
10.3.1.1.1.2	Activities Prior to Building Occupancy for Facilities Using the FPT Process.
10.3.1.1.1.3	Documentation.

Table J-1 Requirements that Align with Leed

Section	Section Title or Description and Directives
<u>10.3.1.2</u>	<u>Building Project Commissioning (Cx) Process.</u>
<u>10.3.1.2.1</u>	<u>Systems to be Commissioned.</u>
<u>10.3.1.2.2</u>	<u>Cx Activities Prior to Building Permit.</u>
<u>10.3.1.2.3</u>	<u>Cx Activities Prior to Building Occupancy.</u>
<u>10.3.1.2.4</u>	<u>Postoccupancy Cx Activities.</u>
<u>10.3.1.3.1</u>	<u>Cx Plan.</u>
<u>10.3.1.3.2</u>	<u>Design Review Report.</u>
<u>10.3.1.3.3</u>	<u>Preliminary Cx Report.</u>
<u>10.3.1.3.4</u>	<u>Final Cx Report.</u>
<u>10.3.1.3.6</u>	<u>Documentation.</u>
<u>10.3.1.4</u>	<u>Erosion and Sedimentation Control (ESC).</u>
<u>10.3.1.5a</u>	<u>IAQ Construction Management.</u>
<u>10.3.1.6</u>	<u>Moisture Control.</u>
<u>10.3.1.7</u>	<u>Construction Activity Pollution Prevention: Idling of Construction Vehicles.</u>
<u>10.3.1.8</u>	<u>Construction Activity Pollution Prevention: Protection of Occupied Areas.</u>
<u>10.3.1.10</u>	<u>Construction and Demolition Waste Management</u>
<u>10.3.2.1.2.2</u>	<u>Track and Assess Water Use.</u>

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FOR THE ENVIRONMENTAL IMPACT OF ITS ACTIVITIES**

ASHRAE is concerned with the impact of its members' activities on both the indoor and outdoor environment. ASHRAE's members will strive to minimize any possible deleterious effect on the indoor and outdoor environment of the systems and components in their responsibility while maximizing the beneficial effects these systems provide, consistent with accepted Standards and the practical state of the art.

ASHRAE's short-range goal is to ensure that the systems and components within its scope do not impact the indoor and outdoor environment to a greater extent than specified by the Standards and Guidelines as established by itself and other responsible bodies.

As an ongoing goal, ASHRAE will, through its Standards Committee and extensive Technical Committee structure, continue to generate up-to-date Standards and Guidelines where appropriate and adopt, recommend, and promote those new and revised Standards developed by other responsible organizations.

Through its *Handbook*, appropriate chapters will contain up-to-date Standards and design considerations as the material is systematically revised.

ASHRAE will take the lead with respect to dissemination of environmental information of its primary interest and will seek out and disseminate information from other responsible organizations that is pertinent, as guides to updating Standards and Guidelines.

The effects of the design and selection of equipment and systems will be considered within the scope of the system's intended use and expected misuse. The disposal of hazardous materials, if any, will also be considered.

ASHRAE's primary concern for environmental impact will be at the site where equipment within ASHRAE's scope operates. However, energy source selection and the possible environmental impact due to the energy source and energy transportation will be considered where possible. Recommendations concerning energy source selection should be made by its members.

Standard 189.1 and the International Green Construction Code

Standard 189.1 serves as the complete technical content of the International Green Construction Code® (IgCC). The IgCC creates a regulatory framework for new and existing buildings, establishing minimum green requirements for buildings and complementing voluntary rating systems. For more information, visit www.iccsafe.org.

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As an industry leader in research, standards writing, publishing, certification, and continuing education, ASHRAE and its members are dedicated to promoting a healthy and sustainable built environment for all, through strategic partnerships with organizations in the HVAC&R community and across related industries.

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