

**ANSI/ASHRAE/ICC/USGBC/IES Addendum b to
ANSI/ASHRAE/ICC/USGBC/IES Standard 189.1-2023**

**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 December 31, 2025; by the International Code Council on November 17, 2025; by the Illuminating Engineering Society on November 13, 2025; and by the U.S. Green Building Council on December 19, 2025.

This addendum was approved by a Standing Standard Project Committee (SSPC) for which the Standards Committee has established a documented program for regular publication of addenda or revisions, including procedures for timely, documented, consensus action on requests for change to any part of the standard. Instructions for how to submit a change can be found on the ASHRAE® website (www.ashrae.org/continuous-maintenance).

The latest edition of an ASHRAE Standard may be purchased on the ASHRAE website (www.ashrae.org) or from ASHRAE Customer Service, 180 Technology Parkway, Peachtree Corners, GA 30092. E-mail: orders@ashrae.org. Fax: 678-539-2129. Telephone: 404-636-8400 (worldwide), or toll free 1-800-527-4723 (for orders in US and Canada). For reprint permission, go to www.ashrae.org/permissions.

© 2025 ASHRAE

ISSN 1041-2336



Donald Horn,* <i>Chair</i>	Wanda D. Edwards	Saber K. Nikkho	Michael Schmeida
Lawrence J. Schoen,* <i>Co-Vice Chair</i>	Steven J. Emmerich	William Le Roy*	Terri Self
Charles N. Eley,* <i>Co-Vice Chair</i>	Anthony C. Floyd*	Hao Li	Matthew Setzekorn
Josh Jacobs,* <i>Co-Vice Chair</i>	Ellen M. Franconi	Richard Lord	Alexander T. Smith
Michael Jouaneh,* <i>Co-Vice Chair</i>	Anne Gire	Mark P. Malkin	Kent A. Sovocool*
Bryan Ahee	Robert L. Goo*	Jonathan R. McHugh*	Dennis A. Stanke
Constantinos A. Balaras	Tristan Grant*	Hailey N. Mick	Wayne H. Stoppelmoor*
Jeff Bradley*	Gregg Gress*	Erik T. Miller-Klein	Christine A. Subasic*
Ariel Brenner*	Roger L. Hedrick*	Alyssa Mrvos	Rusty C. Tharp
Frank M. Burns*	Greg Johnson*	Andrew K. Persily	Kyle Thompson
Glen Clapper	Jack Karlin	Max Puchtel*	John M. Topmiller
Ernest A. Conrad*	Paul A. Karrer	Tiffany Reed-Villarreal*	Martha G. VanGeem*
John P. Cross*	Gerald J. Kettler	Rock Ridolfi*	Lin Wang
Michael W. Cudahy*	Andrew S. Klein*	Steven Rosenstock*	Theresa A. Weston*
Thomas D. Culp*	Thomas M. Lawrence*	Aniruddh Roy	Daniel C. Whittet
Darryl Dixon*	Brittany C. Moser*	Brent Rutherford	Joe F. Winters*

* Denotes members of voting status when the document was approved for publication

ASHRAE STANDARDS COMMITTEE 2025–2026

Adrienne G. Thomle, <i>Chair</i>	Susanne Dormann	Paul A. Lindahl, Jr.	Paolo M. Tronville
Jennifer A. Isenbeck-Pille, <i>Vice Chair</i>	Drake H. Erbe	Kenneth A. Monroe	Douglas K. Tucker
Anthony M. Abate	Marcus Hassen	Philip J. Naughton	Thomas E. Watson
Omar A. Abdelaziz	William M. Healy	Kathleen Owen	David P. Yuill
Charles S. Barnaby	Jaap Hogeling	Michael P. Patton	Patrick C. Marks, <i>BOD ExO</i>
Hoy R. Bohanon	Satish N. Iyengar	Karl L. Peterman	Devin A. Abellon, <i>CO</i>
Kelley P. Cramm	Phillip A. Johnson	Christopher J. Seeton	
Abdel K. Darwich	Tatsuro Kobayashi	Russell C. Tharp	

Ryan Shanley, *Senior Manager of Standards*

SPECIAL NOTE

This American National Standard (ANS) is a national voluntary consensus Standard developed under the auspices of ASHRAE. Consensus is defined by the American National Standards Institute (ANSI), of which ASHRAE is a member and which has approved this Standard as an ANS, as "substantial agreement reached by directly and materially affected interest categories. This signifies the concurrence of more than a simple majority, but not necessarily unanimity. Consensus requires that all views and objections be considered, and that an effort be made toward their resolution." Compliance with this Standard is voluntary until and unless a legal jurisdiction makes compliance mandatory through legislation.

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

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

DISCLAIMER

ASHRAE uses its best efforts to promulgate Standards and Guidelines for the benefit of the public in light of available information and accepted industry practices. However, ASHRAE does not guarantee, certify, or assure the safety or performance of any products, components, or systems tested, installed, or operated in accordance with ASHRAE's Standards or Guidelines or that any tests conducted under its Standards or Guidelines will be nonhazardous or free from risk.

ASHRAE INDUSTRIAL ADVERTISING POLICY ON STANDARDS

ASHRAE Standards and Guidelines are established to assist industry and the public by offering a uniform method of testing for rating purposes, by suggesting safe practices in designing and installing equipment, by providing proper definitions of this equipment, and by providing other information that may serve to guide the industry. The creation of ASHRAE Standards and Guidelines is determined by the need for them, and conformance to them is completely voluntary.

In referring to this Standard or Guideline and in marking of equipment and in advertising, no claim shall be made, either stated or implied, that the product has been approved by ASHRAE.

(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

As climate change and aridification continue to impact water resources, it is important to consider conservation measures from every possible angle. Turfgrass is one of the highest water-use plants commonly found in landscapes in the built environment. This has been demonstrated by numerous studies that have been conducted since Denver Water pioneered the concept of replacing turfgrass with other plantings in the 1980s. Research in the 1990s and 2000s demonstrated that the concept saved significant water and that savings occur in a variety of environments (as shown by utility studies, the Bureau of Reclamation's National Xeriscape Demonstration Project, and the Alliance for Water Efficiency's Landscape Transformation Study), with the most savings typically found in arid settings where significant irrigation volumes are required to sustain grass.

One highly effective way that jurisdictions can save water with minimal impact is by prohibiting non-functional irrigated turfgrass in new or improved development. Nonfunctional turfgrass is broadly decorative turfgrass found along streets; in medians, traffic circles, and parking areas; in the landscaping of businesses; and at vehicular entryways.

As the drought in the western United States has worsened, municipalities, states, and whole regions have started efforts to remove or reduce the amount of nonfunctional turfgrass in existing developments to reduce water demands. Standard 189.1 can complement and inform these efforts by providing communities with an option to stop the spread of new nonfunctional turfgrass within their jurisdiction in a timely manner.

Addendum b creates a jurisdictional option (JO) that prohibits future nonfunctional turfgrass in areas of concern. While it is envisioned that communities in arid areas will be the most interested in this particular JO, it should be noted that water shortages can occur for reasons other than being in a dry environment, such as water system treatment and distribution limitations or source water impairment. As such, this option may be of interest to a significant set of authorities having jurisdiction (AHJs).

Informative 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.

Addendum b to Standard 189.1-2023

Add the following definitions to Section 3.2.

3.2 Definitions

turfgrass, functional: *turfgrass that is within areas designated on the site plans for any of the following:*

- a. Recreational use by the public
- b. Sports fields
- c. Physical education fields and children's play areas
- d. Shared recreational areas totaling no greater than 600 ft² (60 m²) per-dwelling unit, not to exceed 25,000 ft² (2500 m²), at multifamily properties or at assisted living and rehabilitation centers
- e. Driving ranges
- f. Burial grounds
- g. Vegetated pavers
- h. Vegetated roofs
- i. Minimum fire apparatus access as required by the AHJ
- j. Animal exercise and relief

turfgrass, nonfunctional: *turfgrass that is not functional turfgrass.*

Add new Section 6.3.1.3 and renumber subsequent sections.

6.3.1.3 [JO] Irrigation of Nonfunctional Turfgrass. *Installation of an irrigation system for nonfunctional turfgrass shall be prohibited.*

Revise Table 4.2 as follows.

Table 4.2 Requirements Determined by the Jurisdiction (Normative in the IgCC)

Section	Section Title, Description and Directives	Jurisdictional Requirement
6.3.1.3	Irrigation of Nonfunctional Turfgrass	<input type="checkbox"/> No

**POLICY STATEMENT DEFINING ASHRAE'S CONCERN
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.

About ASHRAE

Founded in 1894, ASHRAE is a global professional society committed to serve humanity by advancing the arts and sciences of heating, ventilation, air conditioning, refrigeration, and their allied fields.

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.

To stay current with this and other ASHRAE Standards and Guidelines, visit www.ashrae.org/standards, and connect on LinkedIn, Facebook, Twitter, and YouTube.

Visit the ASHRAE Bookstore

ASHRAE offers its Standards and Guidelines in print, as immediately downloadable PDFs, and via ASHRAE Digital Collections, which provides online access with automatic updates as well as historical versions of publications. Selected Standards and Guidelines are also offered in redline versions that indicate the changes made between the active Standard or Guideline and its previous edition. For more information, visit the Standards and Guidelines section of the ASHRAE Bookstore at www.ashrae.org/bookstore.

IMPORTANT NOTICES ABOUT THIS STANDARD

To ensure that you have all of the approved addenda, errata, and interpretations for this Standard, visit www.ashrae.org/standards to download them free of charge.

Addenda, errata, and interpretations for ASHRAE Standards and Guidelines are no longer distributed with copies of the Standards and Guidelines. ASHRAE provides these addenda, errata, and interpretations only in electronic form to promote more sustainable use of resources.