# ADDENDA

ANSI/ASHRAE/IES Addendum i to ANSI/ASHRAE/IES Standard 90.2-2018

# Energy Efficient Design of Low-Rise Residential Buildings

Approved by the ASHRAE Standards Committee on June 22, 2024, by the Illuminating Engineering Society on May 8, 2024, and by the American National Standards Institute on July 23, 2024.

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 (https://www.ashrae.org/continuous-maintenance).

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- a. interpretation of the contents of this Standard,
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<sup>\*</sup> Denotes members of voting status when the document was approved for publication

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### **FOREWORD**

The change in scope to include high-rise residential buildings prompted a need to also include common areas. To begin the process of creating provisions to address these new areas and their relationship to sleeping and dwelling units, Addendum i defines "common area" to be consistent with other definitions in the standard (with minor changes described below). Common areas can be found in any residential building that has a shared basement, gym, kitchen, lobby, etc. The only thing excluded is the actual dwelling- or sleeping-unit space.

Also, the term "multifamily structure" was found to be inconsistent with other terminology and has been changed to "multifamily building." The phrase "wholly or partially" included in the definition of "building" was found unnecessary and potentially confusing for users and is deleted by Addendum i.

*Informative Note:* In this addendum, changes to the current standard are indicated in the text by <u>underlining</u> (for additions) and <u>strikethrough</u> (for deletions) unless the instructions specifically mention some other means of indicating the changes.

### Addendum i to Standard 90.2-2018

### Modify Section 3.1 as shown.

common area: lighted or conditioned space in a building that is not part of a sleeping or dwelling unit.

*multifamily* structure-building: building of three stories or fewer above grade containing three or more dwelling units other than townhouses, including a manufactured building (modular).

**building:** a structure wholly or partially enclosed within exterior walls, or within exterior and party walls, and a roof, affording shelter to persons, animals, or property.

### Modify Section 7 as shown.

7.1.3 Common Areas of Multifamily Buildings. In multifamily buildings, the components of common areas that provide ancillary functions in the multifamily building shall comply with Table 7-3.

[...

7.4.7 Common Areas of Multifamily Residential Buildings Multifamily Buildings. In common spaces common areas of multifamily multifamily residential buildings buildings, the service water heating (SWH) systems shall meet the requirements of ASHRAE/IES Standard 90.1, Section 7.4.

[...]

### Add new Table 7-3 (I-P) and renumber remaining tables.

Table 7-3 Common Area Component Requirements (I-P)

Maximum SHGC			Maximum U-Factors								
Climate Zone	Glazed Fenestration	Skylights	<b>Fenestration</b>	Skylights	Interior Ceiling <sup>a</sup>	Exterior Ceiling <sup>b</sup>	Interior Framed Walls <sup>a</sup>	Exterior Framed Walls <sup>b</sup>	Exterior Mass Walls	Interior Floor <sup>a</sup>	Exterior Floor <sup>b</sup>
0	0.23	0.23	0.32	0.50	0.080	0.032	0.080	0.076	0.177	0.080	0.058
<u>1</u>	<u>0.23</u>	0.23	<u>0.32</u>	0.50	0.080	0.032	0.080	<u>0.076</u>	<u>0.177</u>	0.080	0.058
<u>2</u>	0.23	0.23	0.32	0.50	0.080	0.027	0.080	<u>0.076</u>	<u>0.149</u>	0.080	0.058
<u>3</u>	0.23	0.23	0.28	0.40	0.080	0.027	0.080	0.054	0.088	0.080	0.042
4 except Marine	<u>0.25</u>	0.25	<u>0.25</u>	0.40	0.080	0.023	0.080	<u>0.054</u>	0.088	0.080	0.042
Marine 4 and 5	0.30	0.30	0.22	0.40	0.080	0.023	0.080	<u>0.054</u>	0.074	0.080	0.030
<u>6</u>	0.45	0.45	0.22	0.40	0.080	0.023	0.080	0.041	0.054	0.080	0.030
<u>7</u>	<u>0.45</u>	0.45	0.22	0.40	0.080	0.023	0.080	0.041	0.051	0.080	0.025
<u>8</u>	<u>NR</u>	<u>NR</u>	0.22	<u>0.40</u>	0.080	0.023	0.080	0.041	<u>0.051</u>	0.080	0.025

a. Interior components are those that separate a common area from a sleeping or dwelling unit.

### Add new Table 7-3 (SI) and renumber remaining tables.

	Maximum	SHGC	Maximum U-Factors								
Climate Zone	Glazed Fenestration	Skylights	<b>Fenestration</b>	Skylights	Interior Ceiling <sup>a</sup>	Exterior Ceiling <sup>b</sup>	Interior Framed Walls <sup>a</sup>	Exterior Framed Walls <sup>b</sup>	Exterior Mass Walls <sup>b</sup>	Interior Floor <sup>a</sup>	Exterior Floor <sup>b</sup>
0	0.23	0.23	<u>1.82</u>	2.84	0.45	0.18	0.45	0.43	1.01	0.45	0.33
<u>1</u>	<u>0.23</u>	0.23	<u>1.82</u>	2.84	<u>0.45</u>	<u>0.18</u>	0.45	0.43	1.01	<u>0.45</u>	<u>0.33</u>
<u>2</u>	0.23	0.23	<u>1.82</u>	2.84	<u>0.45</u>	<u>0.15</u>	<u>0.45</u>	0.43	0.85	<u>0.45</u>	<u>0.33</u>
<u>3</u>	<u>0.23</u>	0.23	<u>1.59</u>	2.27	<u>0.45</u>	<u>0.15</u>	<u>0.45</u>	0.31	<u>0.50</u>	<u>0.45</u>	<u>0.24</u>
4 except Marine	<u>0.25</u>	0.25	<u>1.42</u>	2.27	<u>0.45</u>	<u>0.13</u>	<u>0.45</u>	<u>0.31</u>	<u>0.50</u>	<u>0.45</u>	<u>0.24</u>
Marine 4 and 5	<u>0.30</u>	0.30	<u>1.25</u>	2.27	<u>0.45</u>	<u>0.13</u>	<u>0.45</u>	0.31	0.42	<u>0.45</u>	<u>0.17</u>
<u>6</u>	<u>0.45</u>	<u>0.45</u>	<u>1.25</u>	<u>2.27</u>	<u>0.45</u>	<u>0.13</u>	<u>0.45</u>	0.23	<u>0.31</u>	<u>0.45</u>	<u>0.17</u>
<u>7</u>	<u>0.45</u>	<u>0.45</u>	<u>1.25</u>	2.27	<u>0.45</u>	0.13	<u>0.45</u>	0.23	0.29	<u>0.45</u>	<u>0.14</u>
<u>8</u>	<u>NR</u>	<u>NR</u>	<u>1.25</u>	2.27	<u>0.45</u>	0.13	<u>0.45</u>	0.23	0.29	<u>0.45</u>	<u>0.14</u>

a. Interior components are those that separate a common area from a sleeping or dwelling unit.

b. Exterior components are those that are part of the building thermal envelope.

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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.

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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.

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